

APPENDIX **K**

*Draft Cultural Impact Assessment Report for
Hawaiian Memorial Park
Expansion Area, Kāne'ohe Ahupua'a,
Ko'olaupoko District, O'ahu Island – August 2018
Prepared by: Honua Consulting*



Draft
Cultural Impact Assessment Report for
Hawaiian Memorial Park,
Kāneʻohe Ahupuaʻa, Koʻolaupoko District, Oʻahu Island
TMK: [1] 4-5-033:001



Prepared for
Helber, Hastert & Fee Planners

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Note on Hawaiian language usage

In keeping with other Hawaiian scholars, we do not italicize Hawaiian words. Hawaiian is both the native language of the pae‘āina of Hawai‘i and an official language of the State of Hawai‘i. Some authors will leave Hawaiian words italicized if part of a quote; we do not. In the narrative, we use diacritical markings to assist our readers, except in direct quotes, in which we keep the markings used in the original text. We provide translations contextually when appropriate.

Cover Image

2018 Conceptual Plan of the Petition Area as developed by Helber, Hastert & Fee Planners (HHF Planners)

Summary

At the request of HHF Planners, Honua Consulting is preparing a Cultural Impact Assessment (CIA) of the proposed Hawaiian Memorial Park (HMP) expansion project to support the Environmental Impact Statement being prepared for a petition to amend the State Land Use boundaries of the project site from the State Conservation District to the State Urban District. HHF Planners is seeking to minimize environmental and cultural impacts by carefully inventorying the natural and cultural environment and avoiding any significant archaeological sites, cultural resources, and sensitive species.

Research in preparation of this report consisted of a thorough search of Hawaiian language documents, including but not limited to the Bishop Museum mele index and Bishop Museum archival documents, including the Hawaiian language archival caché. All Hawaiian language documents were reviewed by Hawaiian language experts to search for relevant information to include in the report. Documents considered relevant to this analysis are included herein, and translations are provided when appropriate to the discussion. Summaries of interviews and information on other oral testimonies are also provided herein.

Based on the data extrapolated during the thorough research activities conducted over the course of completing this draft assessment and in compliance with HRS Chapter 343, Act 50 HSL 2000, and *Ka Pa'akai*, the following recommendations have been offered:

- Development of a cultural preserve within the project area to protect and preserve significant historic sites and traditional and customary practices, including but not limited to activities associated with hula traditions and natural resources significant to hula practitioners;
- Development of a preservation plan to protect and preserve historic sites and traditional and customary practices, including but not limited to activities associated with hula traditions and natural resources significant to hula practitioners; and
- Development of a management plan to protect and preserve historic sites and traditional and customary practices, including but not limited to activities associated with hula traditions and natural resources significant to hula practitioners.

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Abbreviations and Acronyms

AIS: Archaeological Inventory Survey

AMSL: Above Mean Sea Level

BMP: Best Management Practice

CIA: Cultural Impact Assessment

CP: Cultural Preserve

Abbreviation and Acronyms continued

CSH: Cultural Surveys Hawaii

EIS: Environmental Impact Statement

HAR: Hawaii Administrative Rules

HHF: Helber, Hastert & Fee

HILT: Hawaiian Islands Land Trust

HMP: Hawaiian Memorial Park

HRS: Hawaii Revised Statutes

HSL: Hawaii State Legislature

LCA: Land Commission Awards

LUC: Land Use Commission

MBTA: Migratory Bird Treaty Act

ROI: Range of Influence

SHPD: State Historic Preservation Division

SIHP: State Inventory of Historic Places

TMK: Tax Map Key

I. Project Description

Hawaiian Memorial Life Plan, Ltd. owns and manages Hawaiian Memorial Park (HMP), a full-service cemetery located in Kāneʻohe, Oʻahu, Hawaiʻi. HMP has operated at this location since 1959. At the request of HHF Planners, Honua Consulting is preparing a Cultural Impact Assessment (CIA) of the proposed HMP expansion project to support the Environmental Impact Statement (EIS) being prepared for a petition to amend the State Land Use boundaries of the project site from the State Conservation District to the State Urban District. HHF Planners is seeking to minimize environmental and cultural impacts by carefully inventorying the natural and cultural environment and avoiding any significant archaeological sites, cultural resources, and sensitive species.

An EIS that is in preparation will provide an overview analysis of the benefits and adverse impacts of the expansion of HMP to the ahupuaʻa of Kāneʻohe and its adjacent community. This CIA is being prepared in conjunction with an Archaeological Inventory Study (AIS) also being conducted by Honua Consulting.

The HMP expansion's current concept plan is adjacent to the existing HMP and has a total area of 53.45 acres within the 164-acre parcel of land owned by the cemetery (TMK 4-5-033:001), which will be referred to as the "Project Area" throughout this assessment (Figure 1). The 53.45-acre area will be referred to as the "Petition Area." The petition area consists of privately owned, undeveloped area utilized mainly for unauthorized hiking and recreational activities. HMP plans to develop 28.20 acres into new cemetery areas, approximately 3.00 acres into internal roadways, and 7.75 acres into open space area. The remaining 14.50 acres of the petition area is planned to be developed into a Cultural Preserve (CP). The remaining 103.07 acres of the parcel will be left undeveloped. The proposed CP is located in the northeast portion of the petition area, and proposed project improvements within the CP include clearing of vegetation, creation of walking trails, and potential installation of interpretive signage. Proposed project construction outside of the CP include mass earth moving to level the existing hillside, creation of an access driveway, installation of a drainage system, and landscaping. There is also discussion of adding a Hawaiian burial internment area.



Figure 1. 2018 Conceptual Plan for HMP Expansion (Prepared by HHF Planners)

Project Description

There are a number of historical sites within the petition area, the most prominent of which is Kāwa‘ewa‘e Heiau (SIHP #50-80-10-354, National Register Reference #72000427). A total of 24 sites were documented during Honua Consulting’s pedestrian survey for the AIS. Ten (10) of the sites were previously identified during prior archaeological studies, eight (8) of which are located within the proposed CP (SIHP #'s -0354, - 4683, -4684, -6930 to -6933, and -7079) and two (2) of which are located near the edges of the current petition area boundary (SIHP # -4680 and -4681). The remaining 14 sites are newly identified during the current investigation (Honua 1-14, SIHP # -8228 to -8241); three (3) of these sites will be added to the proposed CP (Honua 4, Honua 13, and Honua 14), while the eleven remaining sites were found outside the CP (Honua 1-3 and 5-12). Two documented sites just outside the petition area (-4681 and Honua 8 [-8235]) should not be impacted by the project.

All historic sites located in the petition area, two just outside the boundaries of the petition area, are listed and described in the following table, identified by their State Inventory of Historic Places (SIHP) numbers (Table 1). A visual representation of all sites and their locations throughout the petition area is provided in Figure 2. These sites are further described and assessed in the accompanying AIS (Thurman et al. 2018).

Table 1. Historic Sites within or near the Petition Area

SIHP #50-80-10	Type (Location)	Function	Period	Condition
Sites within Petition Area and CP				
-0354	Kāwa‘ewa‘e Heiau	Ceremonial	Pre-Contact	Good
-4683	Historic Charcoal Kiln	Charcoal kiln	Historic	Fair
-4684	Traditional Habitation Complex	Habitation	Pre-Contact	Good to Fair
-6930	Traditional Stone Enclosure	Ceremonial	Pre-Contact	Good
-6931	Traditional Stone Alignments	Ceremonial	Pre-Contact	Poor
-6932	Historic Stone Storage	Storage	Historic	Good

SIHP #50-80-10	Type (Location)	Function	Period	Condition
-6933	Historic Charcoal Kiln	Charcoal kiln	Historic (uncertain)	Fair
-7079	Traditional Agricultural Complex	Agriculture	Pre-Contact	Poor
-8231 (Honua 4)	Traditional Terraced 'Auwai	Agriculture	Pre-Contact to early Post-Contact	Good to Fair
-8240 (Honua 13)	Traditional Terraced 'Auwai	Agriculture/Horiculture	Pre- and Post-Contact; possibly into Historic era	Fair
-8241 (Honua 14)	Walled Pit	Charcoal Kiln	Historic, Post-1825	Good
Sites within Petition Area, Outside CP				
-4680	Historic Water Retention Terrace	Water Control/Water Retention	Historic	Fair
-8228 (Honua 1)	Historic Dairy Roads	Dairy Transportation/Hauling Operation	Historic	Poor
-8229 (Honua 2)	Historic Road	Transportation	Historic	Poor
-8230 (Honua 3)	Historic 'Auwai	Agriculture, Water Catchment	Historic	Fair
-8232 (Honua 5)	Traditional Agricultural Terrace Remnants	Agriculture	Pre-Contact	Poor/Remnant
-8233 (Honua 6A)	Traditional Agricultural Terrace Remnants	Agriculture/Possible Habitation	Likely Pre-Contact to early Post-Contact	Poor to Fair
-8233 (Honua 6B)	Modified Outcrop	Agriculture/Possible Habitation	Likely Pre-Contact to early Post-Contact	Fair
-8234 (Honua 7)	Traditional Agricultural Terrace	Agriculture	Pre-Contact	Fair
-8236 (Honua 9)	Historic Terrace	Water Diversion	Historic	Good
-8237 (Honua 10)	Traditional Agricultural Terrace Remnants	Agriculture	Pre-Contact	Poor/Remnant

Project Description

SIHP #50-80-10	Type (Location)	Function	Period	Condition
-8238 (Honua 11)	Possible Habitation and Agricultural Terraces	Habitation/ Agriculture	Possibly early Post-Contact	Fair to Poor
-8239 (Honua 12)	Earthen Pit	Possible Charcoal Kiln or Signal Fire Pit	Unknown	Fair
Site outside Petition Area				
-4681	Traditional Habitation Complex	Habitation/ Agriculture/ Ceremonial	Pre-Contact to early Post- Contact	Good to Fair
-8235 (Honua 8)	Habitation Structure	Habitation	Possibly early Post-Contact	Fair

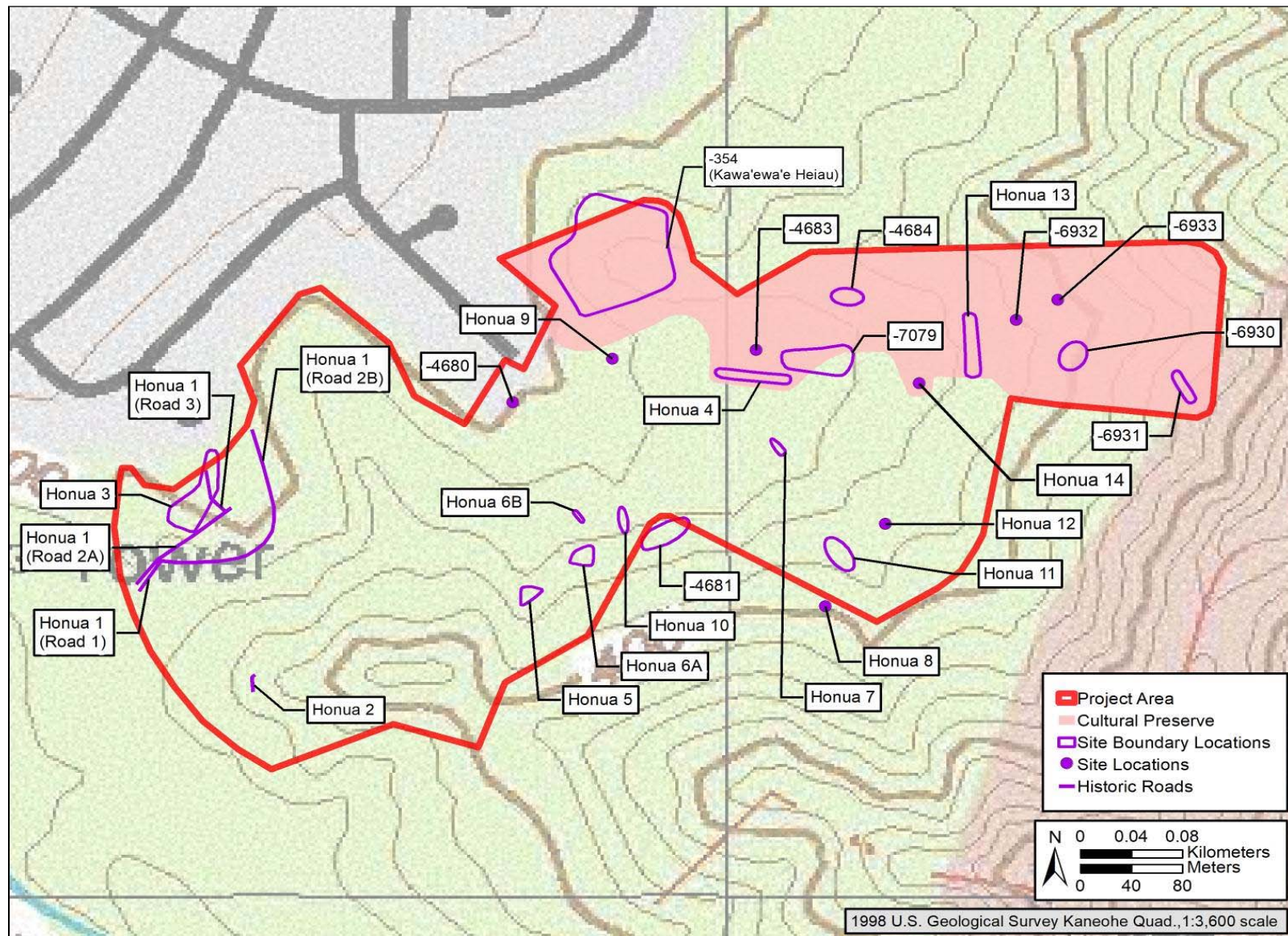


Figure 2. Portion of a 1998 USGS map showing locations of all documented sites and a 2018 Revised Cultural Preserve Boundary (Thurman et al. 2018)

II. Need for a Cultural Impact Assessment

A. Regulatory Background

Articles IX and XII of the State Constitution, other state laws, and the courts of the state require government agencies to protect and preserve cultural beliefs, practices, and resources of Native Hawaiians and other ethnic groups. To assist decision makers in the protection of cultural resources, Chapter 343, Hawaii Revised Statutes (HRS) and Hawaii Administrative Rules (HAR) § 11-200 rules for the environmental impact assessment process require project proponents to assess proposed actions for their potential impacts to cultural properties, practices, and beliefs.

This process was clarified by the Hawaii State Legislature (HSL) in Act 50, HSL 2000. Act 50 recognized the importance of protecting Native Hawaiian cultural resources and required that EISs include the disclosure of the effects of a proposed action on the cultural practices of the community and state, and the Native Hawaiian community in particular. Specifically, the Environmental Council suggested the CIAs should include information relating to practices and beliefs of a particular cultural or ethnic group or groups. Such information may be obtained through public scoping, community meetings, ethnographic interviews, and oral histories.

B. Compliance

The State and its agencies have an affirmative obligation to preserve and protect the reasonable exercise of customarily and traditionally exercised rights of Native Hawaiians to the extent feasible.¹ State law further recognizes that the cultural landscapes provide living and valuable cultural resources where Native Hawaiians have and continue to exercise traditional and customary practices, including but not limited to hunting, fishing, gathering, and religious practices. In *Ka Pa'akai*, the Hawai'i Supreme Court provided government agencies an analytical framework to ensure the protection and preservation of traditional

¹ Article XII, Section 7 of the Hawai'i State Constitution, *Ka Pa'akai O Ka 'Āina v. Land Use Commission*, 94 Haw. 31 [2000](*Ka Pa'akai*), Act 50 HSL 2000.

and customary Native Hawaiian rights while reasonably accommodating competing private development interests. This is accomplished through:

- 1) The identification of valued cultural, historical, or natural resources in the project area, including the extent to which traditional and customary Native Hawaiian rights are exercised in the project area.
- 2) The extent to which those resources—including traditional and customary Native Hawaiian rights—will be affected or impaired by the proposed action; and
- 3) The feasible action, if any, to be taken to reasonably protect Native Hawaiian rights if they are found to exist.

The CIA is presently being prepared under HRS Chapter 343 and Act 50 HSL 2000. The appropriate information has been collected concerning the ahupua‘a of Kāne‘ohe, focusing on areas near or adjacent to the project area, and a thorough analysis of this project and potential impacts to cultural resources, historical resources, and archaeological sites is included in this assessment.

The present analyses of archival documents, oral traditions (oli (chants), mele (songs), and/or hula), and Hawaiian language sources including books, manuscripts, and newspaper articles, are focused on identifying recorded cultural and archaeological resources present on the landscape, including: Hawaiian and non-Hawaiian place names; landscape features (ridges, gulches, cinder cones); archaeological features (kuleana parcel walls, house platforms, shrines, heiau (places of worship), etc.); culturally significant areas (viewsheds, unmodified areas where gathering practices and/or rituals were performed); and significant biocultural resources. The information gathered through research helped to focus interview questions on specific features and elements within the project area.

Interviews with lineal and cultural descendants are instrumental in procuring information about the project area’s transformation through time and changing uses. Interviews were conducted with recognized cultural experts and summaries of those interviews are included herein.

Need for a Cultural Impact Assessment

The Draft EIS will provide an overview of cultural and historic resources in the petition area using thorough literature review, community and cultural practitioner consultation, and high-level, project-specific surveys. The Draft EIS will focus on identifying areas in which disturbance should be avoided or minimized to reduce impacts to historic properties or culturally important features. The paramount goal will be to prevent impacts through avoidance of sensitive areas and mitigate for impacts only if avoidance is not possible.

Environmental factors potentially influencing the distribution of historic properties will also be evaluated in the EIS. The resulting data will be analyzed to develop a general settlement pattern model for the area that helps estimate the likely types and distribution of historic properties. The potential significance and required treatment of expected historic properties will also be summarized. The goal of this work is to develop recommendations to assist with future infrastructure planning that minimizes adverse effects upon historic properties.

The Range of Influence (ROI) for impacts to cultural resources and historic properties includes the petition area and localized surroundings, as well as areas extending beyond the petition area that have some potential to be disturbed. Potential impacts include destruction of physical remains or alterations of landscapes or viewplanes with cultural associations. This CIA also reviews some of the resources primarily covered by the Draft EIS and AIS. It primarily researches and reviews the range of biocultural resources identified through historical documents, traditional knowledge, information found in the Hawaiian language historical caché, and oral histories and knowledge collected from cultural practitioners and experts.

C. Methodology

The approach to developing the CIA is as follows:

I. Gather Best Information Available

- A. Gather historic cultural information from stories and other oral histories about the affected area to provide cultural foundation for the report;**

- B. Inventory as much information as can be identified about as many known cultural, historic, and natural resources, including previous archaeological inventory surveys, CIAs, etc. that may have been completed for the possible range of areas;
- C. Update the information from interviews with cultural or lineal descendants or other knowledgeable cultural practitioners.

II. Identification of Potential Impacts to Cultural Resources

III. Develop Reasonable Mitigation Measures to Reduce Potential Impacts

- A. Involve the community and cultural experts in developing culturally appropriate mitigation measures);
- B. Develop specific Best Management Practices (BMPs), if any are required, for conducting the project in a culturally appropriate and/or sensitive manner as the mitigation and/or reduce any impacts to cultural practices and/or resources.

While numerous studies have been conducted on this area, very few have effectively utilized Hawaiian language resources and Hawaiian knowledge.

Honua Consulting developed a list of place names, which includes but is not limited to the following places and terms, to help guide research and analyses (Table 2). The place names, or toponyms, were collected through resources such as Pukui, Elbert and Mookini’s “Place Names of Hawaii” and AVA Konohiki; the place names collected consist primarily of loko i’a (fishponds), heiau, and land divisions.

Table 2. Place Names Associated with Kāne’ohe in the Vicinity of the Project Area

Toponym	Type	Translation / Description
Ahukini	Heiau	Altar [for] many [blessings]
Halekou	Loko i’a	Kou-wood house
Hanaloa	Loko i’a	Long bay

Toponym	Type	Translation / Description
He'eia	Land division, stream, and loko i'a	During a battle with people from Leeward O'ahu, a tidal wave is said to have washed (he'e 'ia) the natives out to sea and back, after which they were victorious, thus fulfilling a prophecy. In ancient times, souls were judged here and divided into two groups: the white, who went to He'eia-kea, and the black, who went to He'eia-uli. He'eia is also the name given by the goddess Haumea to her foster child, the grandson of 'Olopana (Pukui et al. 1974: 44).
Hooleinaiwa (Ho'oleinā'iwa)	Stream	'Iwa ferns thrown away
Hopenui	'Ili	Great end
Kalokoai (Kaloko'ai)	'Ili	The food pond
Kalokohanahou (formerly Kahanahou)	Loko i'a	The repaired pond
Kaluapuhi	Loko i'a	The eel pit
Kaluoa	Loko i'a	According to McAllister, this was the name of the pond situated between Mahinui and Mikiola; it appears as Kapuu on a map in the Bishop Estate office (1933: 179).
Kamo'oali'i	Stream	The chiefly mo'o (lizard). Many mo'o stories concern this area. In one, a chiefess from Maui was to meet a local chief here. A handsome man approached who she thought was the chief; but the chief arrived and the stranger turned into a mo'o and carried her into the stream (Pukui et al. 1974: 82).
Kāne'ohe	Ahupua'a, bay and stream	Bamboo husband (according to one account, a woman compared her husband's cruelty to the cutting edge of a bamboo knife) (Pukui et al. 1974: 85).
Kanohulu'iwi	Loko i'a	According to McAllister, this 2.5 acre pond was still in use during his study (1933: 182).
Kawa (Kāwā)	Stream	Distance between two points
Kāwa'ewa'e	Heiau	Kind of stone or coral, as used in polishing canoes, or in rubbing off pig bristles

Toponym	Type	Translation / Description
Kea'ahala	Stream	The pandanus root
Kea'alau	Land division and loko i'a	The many roots
Keana	Land division and loko i'a	The cave
Kekele	Heiau	Damp
Kukuiokāne	Heiau	Light of Kāne
Kumukumu	Spring	Stubs
Kū'ou	Stream	A possible variant of kūlou, meaning to bow the head
Lanihuli	Peak above Nu'uanu Pali	Turning royal chief
Luluku	Land section and stream	Destruction
Mahinui	Mountain, loko i'a, and stream	Great champion. Named for a legendary hero who was defeated by Olomana, and whose body was cast from Mount Olomana to the present location of the mountain (Pukui et al. 1974: 138).
Mikiola	Subdivision and former loko i'a	Active [and] alive
Mōkapu	Land division	Taboo district. Originally named Mokukapu because Kamehameha I met his chiefs here; it was "the sacred land of Kamehameha" (Pukui et al. 1974: 153-154).
Nu'upia	Loko i'a	Arrowroot heap
Oneawa	Land division	Milkfish sand
Pāku'i	Central peak of Mount Olomana	Attached
Pāpa'a	Loko i'a	Secure enclosure
Punalu'u	Loko i'a	Spring dived for
Pu'u Makani	Heiau	Windy hill
Pu'u Pahu	Heiau	This heiau was once located on the Kāne'ohe/He'eia boundary. McAllister stated that it is "said to have been located on the

Toponym	Type	Translation / Description
		elevation called Puupahu, Kaneohe. There are no remains now" (1933: 177).
Pu'u Waniaia	Heiau and ridge	This heiau lies on Pu'u Waniaia ridge, the boundary between Kāne'ōhe and Kailua.
Waikalua Loko	Loko i'a	Water [of] the lua fighter or of the pit

III. Description of Petition Area

The petition area is located within the ahupua'a of Kāne'ohe. Sterling and Summers cite the Hawaiian Ethnological Notes Collection, which provides an account of the naming of the area:

Kaneohe, a place on Oahu. A woman asked the other, "Is he a good husband?"
The second woman replied, "He is a kane ohe." (He is like a bamboo knife, this
is cruel and heartless.) (Sterling and Summers 1978: 205).

Other Hawaiian researchers believe Kāne'ohe was named in reference to a sacred grove of bamboo ('ohe) that grew near the large heiau of Kukuiokāne, dedicated to the god Kāne. The site of Kukuiokāne heiau was buried with the construction of the Interstate H3 in the early 1990s.

The following research and analysis appropriately studies the history and cultural resources of Kāne'ohe, focusing on the petition area and the surrounding environment.

A. Physical Environment

The petition area is located within the Windward O'ahu district of Ko'olaupoko, which contains the ahupua'a of Waimānalo, Kailua, Kāne'ohe, He'eia, Kahalu'u, Waihe'e, Ka'ālaea, Waiāhole, Waikāne, Hakipu'u and Kualoa. Kāne'ohe is approximately 11,000 acres, extending from the Windward base of the Ko'olau Mountain Range to the ocean, and is bordered by the ahupua'a of He'eia to the west and Kailua to the east. Kāne'ohe has a rich cultural history dating from the earliest days of Hawaiian settlement, which was once evident by the abundance of cultural and archaeological sites located within the ahupua'a. However, with the construction of the Interstate H-3 during the late 1980s and 1990s, many of these sites were destroyed and covered.

The petition area ranges in elevation from 100 feet above mean sea level (AMSL) to 945 AMSL. The annual high temperature is 81.5°F (27.5°C) and the annual low temperature is 72.3°F (22.4°C), with an average temperature of 76.9°F (25°C) (U.S. Climate Data 2017). Annual precipitation is high at 52.9 inches, compared to the national average of 39.2 inches,

Description of Petition Area

and Kāneʻohe averages 99 precipitation days per year and 268 sunny days (U.S. Climate Data 2017).

Soils within, and in proximity to, the petition area include Kāneʻohe silty clay (KHOF), 30-65% slopes; Alaeloa silty clay (AeE), 15-35% slopes; Alaeloa silty clay (ALF), 40-70% slopes; Helemano silty clay (HLMG), 30-90% slopes; and Kāneʻohe silty clay (KgC), 8-15% slopes (Foote et al. 1972). The soil types are illustrated in the following figure (Figure 3):

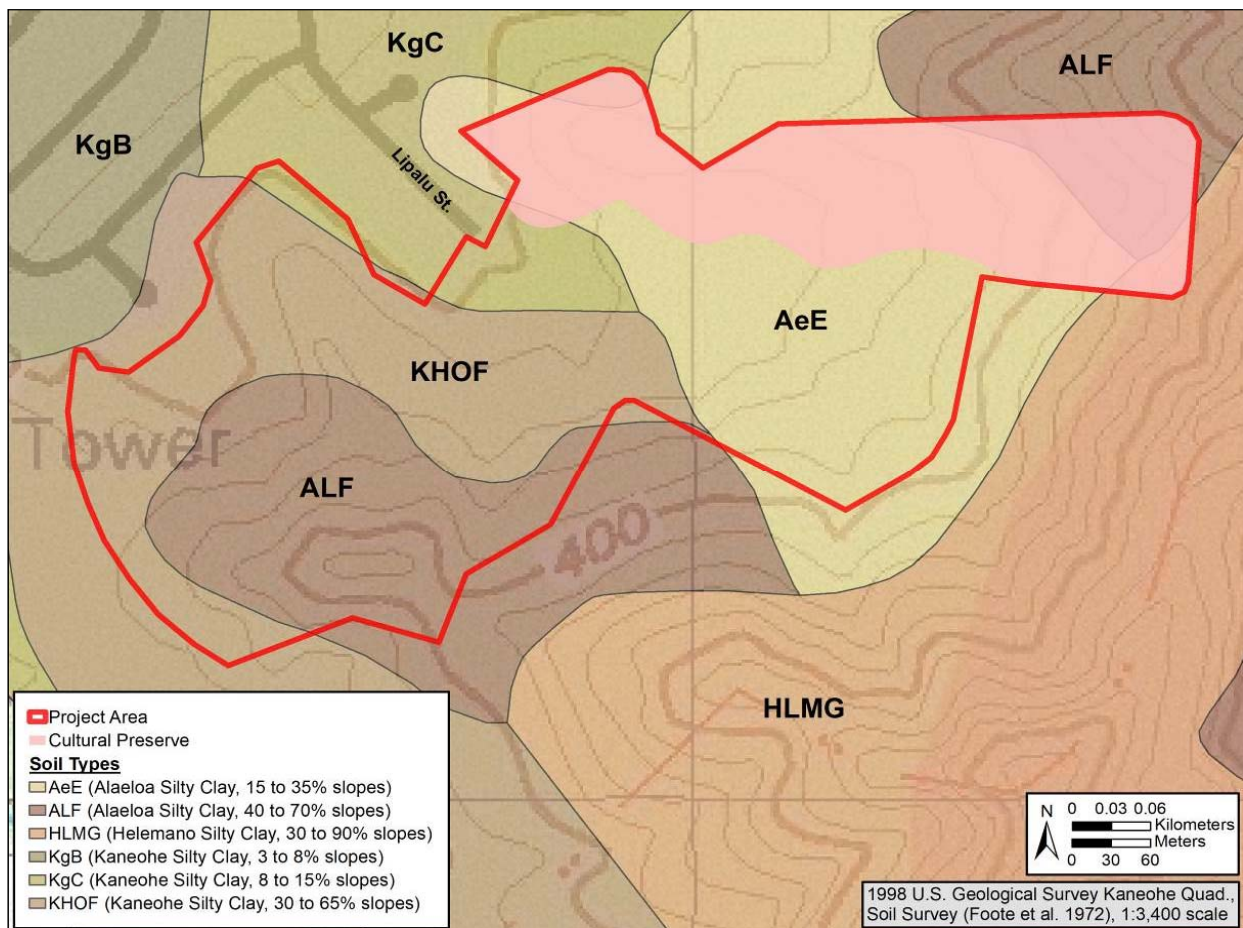


Figure 3. Portion of a 1998 Kāneʻohe USGS map with Overlay of Soil Survey Data (Foote et al. 1972)

Located within the Hawaiian Memorial Park, the Kawa Stream is a small stream that empties directly into the southern part of Kāneʻohe Bay. Kawa Stream is characterized by periods of steady base flow, and short periods of high flow as a result of heavy rains. This stream runs west and south of the petition area, and the central branch of the stream arises within the

Description of Petition Area

National Veterans Cemetery (Hammatt 2008). The elevation of Kawa Stream is approximately 3 feet (1 meter) AMSL.

The vegetation within and around the petition area is diverse, but predominantly overrun by invasive plant species. Of the 109 plants species observed within the petition area, 91 are alien (84%), seven are Polynesian introductions (6%), eight are indigenous (7%), and three are endemic (3%) (LeGrande 2018). The invasive species include the Christmas berry (*Schinus terebinthifolius*), Java plum (*Syzygium cumini*), albizia trees (*Falcataria moluccana*), ironwood (*Cuarina* spp.), cinnamon trees (*Cinnamomum* spp.), octopus trees (*Schefflera actinophylla*), lemon and strawberry guava (*Psidium guajava*, *Psidium cattleianum*), African tulip tree (*Spacthodea campanulata*), Cook and/or Norfolk Island pine (*Auracaria* spp.), and mango trees (*Mangifera indica*). Grass species include such as honohono (basketgrass, *Oplismenus hirtellus*), sourgrass (*Digitaria insularis*), and broomsedge (*Andropogon virginicus*). Ferns such as laua'e (*Phymatosorus grossus*) and pala'ā (*Sphenomeris chinensis*) are the primary understory plants apparent in the petition area (LeGrande 2018). The seven Polynesian-introduced plant species in the petition area include kalo (*Colocasia esculenta*), tī (*Cordyline fruticosa*), kukui (*Aleurites moluccana*), niu (*Cocos nucifera*), mai'a (*Musa* sp.), noni (*Morinda citrifolia*), and hau (*Hibiscus tiliaceus*); kukui and hau trees were discovered scattered throughout the petition area, tī plants were found in small gulches and ravines, and niu trees could be found near the bottom of the gulch (LeGrande 2018). The eight indigenous plant species observed are infrequent within the petition area, and they include 'ēkaha (*Asplenium nidus*), palapalai (*Microlepia strigosa*), pōpolo (*Solanum americanum*), 'uhaloa (*Waltheria indica*), hala (*Pandanus tectorius*), kā'e'e (*Mucuna gigantea*), pala'ā (*Sphenomeris chinensis*) and moa (*Psilotum nudum*). The three endemic species observed include koa trees (*Acacia koa*), 'ākia (*Wikstroemia oahuensis* var. *oahuensis*), and 'ōhi'a lehua (*Metrosideros polymorpha*); the former was found near Kāwa'ewa'e Heiau while the latter two were located near the Ocean View Garden section of the existing HMP and in the upper elevations on the ridgeline in the southwest section of the petition area (LeGrande 2018).

B. Biocultural Environment

To employ the Hawaiian landscape perspective and emphasize the symbiosis of natural and cultural resources, Honua Consulting uses the term 'biocultural' to refer to natural and cultural resources, with additional sub-classifications by attributes.

Honua Consulting employs three broad terms that are both well-defined and flexible enough to be used to place traditional cultural areas/properties, naturally occurring non-modified features, archaeological features, and other areas of cultural significance within a specific spatial-temporal framework. Hawaiian epistemology categorizes ecological regions much like non-indigenous science categorizes different ecosystems in biomes. Hawaiian ecological regions are referred to as wao (realms). While numerous wao exist, focus is placed on the wao most important to this assessment:

Wao kānaka: the region, usually from coast to inland plain (exclusive of inland forests), characterized by permanent human occupation, active resource management, and resource modification. This is observable through the presence of archaeological features indicating permanent occupation, including large concentrations of house lot complexes, religious complexes, and fishponds.

Wao kele: the inland forest region, including rain-belt forests, characterized by large-scale subsistence systems, active resource management, and resource modification. This is observable through the presence of agriculture-related archaeological features, fewer heiau than the wao kānaka region, and smaller concentrations of house lots.

Wao akua: the distant realm inhabited by the gods and demigods, this area was kapu and the general populous only entered the realm with reverence. Wao akua can include the mountains, mountain tops, and ridges of entire islands and/or regions where clouds settle upon the land (thus at varying elevational zones depending on district and region).

Description of Petition Area

A brief further discussion of environmental zones and traditional Hawaiian land management practices is necessary to understand the tangible and intangible aspects of the Hawaiian landscape. Additionally, it is important to point out once again that in the Hawaiian landscape, all natural and cultural resources are interrelated and culturally significant. Natural unaltered landscape features such as rocky outcrops, cinder cones, intermittent streams, or an open plain can carry as much significance as a planted grove of wauke or a boulder-lined 'auwai.

Maly presents a narrative of traditional Hawaiian land management strategies and the different environmental zones recorded in *Ka Hoku o Hawaii* (September 21, 1916):

Hawaiian customs and practices demonstrate the belief that all portions of the land and environment are related, like members of an extended family, each environmental zone was named, and their individual attributes were known. Acknowledging the relationship of one environmental zone (wao) to another, is rooted in traditional land management practices and values. Just as place names tell us that areas are of cultural importance, the occurrence of a Hawaiian nomenclature for environmental zones also tells us that there was an intimate relationship between Hawaiians and their environment.

The native tradition of Ka-Miki provides readers with a detailed account of Hawaiian land divisions and environmental zones. While competing in a riddling contest at the court of the chief, Palikū-a-Kīko'oko'o, the hero, Ka-Miki sparred with Pīna'au, the foremost riddler of the district of Hilo Palikū (northern Hilo). The riddles covered topics describing regions from the mountain tips to the depths of the ocean, and descriptions of kalo (taro growth), the ala loa (trail systems), and nā mea lawai'a (fishing practices). As the contest unfolded, it was seen that each of the competitors were well matched. In one of the riddles, Ka-Miki described the various regions of the island of Hawaii, extending from the mountain to the sea. Ka-Miki then told his opponent, that if he could rise to the challenge of answering the riddle, his knowledge could be compared to one who has ascended to the summit of the

Description of Petition Area

“mauna o Paliāhu” (mountain of Poli‘āhu, or Mauna Kea) (in *Ka Hoku o Hawaii*, September 21, 1916).

Through one of the riddles [the] reader learn[s] about the traditional wao or regions of land, districts, and land divisions of the administrators who kept peace upon the land. The environmental zones include:

1 – Ke kuahiwi; 2 – Ke kualono; 3 – Ke kaumauna; 4 – Ke ku(a)hea; 5 – Ke kaolo; 6 – Ka wao; 7 – Ka wau ma‘u kele; 8 – Ka wao kele; 9 – Ka wao akua; 10 – Ka wao lā‘au; 11 – Ka wao kānaka; 12 – Ka ‘ama‘u; 13 – Ka ‘āpa‘a; 14 – Ka pahe‘e; 15 – Ke kula; 16 – Ka ‘ilima; 17 – Ka pu‘eone; 18 – Ka po‘ina nalu; 19 – Ke kai kohola; 20 – Ke kai ‘ele; 21 – Ke kai uli; 22 – Ke kai pualena; 23 – Kai Pōpolohua-a-Kāne-i-Tahiti.

1 – The mountain; 2 – The region near the mountain top; 3 – The mountain top; 4 – The misty ridge; 5 – The trail ways; 6 – The inland regions; 7 and 8 – The rain belt regions; 9 – The distant area inhabited by gods; 10 – The forested region; 11 – The region of people below; 12 – The place of ‘ama‘u (fern upland agricultural zone); 13 – The arid plains; 14 – The place of wet land planting; 15 – The plain or open country; 16 – The place of ‘ilima growth (a seaward, and generally arid section of the kula; 17 – The dunes; 18 – The place covered by waves (shoreline); 19 – The shallow sea (shoreline reef flats); 20 – The dark sea; 21 – The deep blue-green sea; 22 – The yellow (sun-reflecting sea on the horizon); and 23 – The deep purplish black sea of Kāne at Tahiti (Maly 2001: 3).

The area in which the project is located is particularly interesting, because as following sections will show, it is a true wahi pana (storied place). There are many old mo‘olelo (traditions and histories) written about this region, and some about the features and sites within the petition area themselves. In particular, there are stories about the individuals who once lived in the region.

Description of Petition Area

From analysis of the existing resources, oral histories, and mo'olelo, it is easily determined that this area would be considered "ka wao lā'au" or the place of 'ama'u, a fern upland agricultural zone. While 'ama'u (genus *Sadleria*) is not currently found in the area, it may have been at one time. It is possible the introduction of invasive flora and fauna, in addition to ungulates, led to the loss of the species in the area. Ka wao lā'au also generally translates to the realm where ferns grow, which accurately describes the area. Yet, it is worth mentioning 'ama'u here, as it would likely grow in the area and it is a kino lau (body form) of Kamapua'a, the demigod and king who played a prominent role in the famed history of the area.

IV. Existing Resources

There are two overlapping cultural issues related to this project: the nature of the project and the location of the project. Histories on both of these issues are provided separately, then an analysis of how they relate in this project is provided. Inquiries on both topics were made with all interviewees.

Assessment of archaeological resources is extensively investigated in the AIS also prepared by Honua Consulting, and this includes archaeological research that examines the Land Commission Awards, ahupua'a records, historic maps, archival materials, archaeological reports, and other historical sources. This work supplements field reconnaissance to survey the petition area in a manner determined by the archaeological team and the State Historic Preservation Division (SHPD).

A. Cultural History of Kāne'ōhe

1. Mo'olelo

Kāne'ōhe is full of a rich and interesting cultural history, and several mo'olelo are associated with this ahupua'a. Kamapua'a, a demigod that is half pig and half man, is deeply connected to the Windward O'ahu area. King David Kalākaua describes Kamapua'a as the "traditional monster of Oahu" and "a monster of prodigious bulk and malicious and predatory propensities" (Kalākaua 1990: 141-142). Kalākaua states that Kamapua'a is the son of Hina, daughter of the chief Kalana and Kamaunui, and 'Olopana, a chief of the island of O'ahu. Hina formed a relationship with 'Olopana's brother Kahiki'ula before Kamapua'a's birth, and 'Olopana was convinced that Kahiki'ula was the true father of Kamapua'a, shaping his resentment for the hog-child from birth. After 'Olopana exiled Kamapua'a from the district, Kamapua'a was joined by a large party of miscreants who aided him in exacting revenge against 'Olopana (Kalākaua 1990). Kamapua'a stole and vandalized 'Olopana's property, and eventually cut down his coconut trees and destroyed his crops, which could be regarded as "a declaration of war" (Kalākaua 1990: 144). 'Olopana repeatedly failed to dispose of Kamapua'a and his followers, but Kamapua'a was eventually captured and delivered to

'Olopana. The following passage by Kalākaua describes the events leading to and after Kamapua'a's capture:

It is difficult to say just how long this desultory fighting continued, but in the end the rebels were surrounded and nearly destroyed, and Kamapuaa was captured unhurt and delivered over to Olopana, to the great joy and relief of the people of Koolau. Olopana had erected a *heiau* at Kaneohe, where Lonoaohi officiated as high-priest, and thither he resolved to take his rebellious son or nephew, and offer him as a sacrifice to the gods. Hina pleaded for the life of Kamapuaa, but Olopana could not be moved. Satisfied that he would listen to no appeals for mercy, she determined to save her son, even at the sacrifice of her husband, and to that end secured the assistance of the high-priest, through whose treachery to Olopana the life of Kamapuaa was saved.

On the day fixed for the sacrifice Kamapuaa, carefully bound and strongly guarded, was taken to the *heiau*, followed by Olopana, who was anxious to witness the ghastly ceremonies, and with his own eyes see that his troublesome enemy was duly slain and his body laid upon the altar. In offering human sacrifices the victim was taken without the walls of the *heiau* and slain with clubs by the assistants of the high-priest. The body was then brought in and placed upon the altar in front of the entrance to the inner court, or sanctuary, when the left eye was removed by the officiating priest, and handed, if he was present, to the chief who had ordered the sacrifice. This being done, the offering was then ceremoniously made, and the body was left upon the altar for the elements to deal with.

Standing, with three or four attendants, at the door of his *tabued* retreat, within forty or fifty paces of the altar, Olopana saw his victim preliminarily led to the place of sacrifice, and a few minutes after motioned for the ceremonies to begin. Kamapuaa was taken without the walls of the temple to be slain. He was in charge of three assistant priests, one of them leading him by a stout cord around his neck, another keeping closely behind him, and the third

walking silently at his side with the club of execution in his hand. Passing beyond the outer wall, the party entered a small walled enclosure adjoining, and the executioner raised his club and brought it down upon the head of his victim. Kamapuaa smiled, but did not move. Twice, thrice with might sweep the club descended upon the head of Kamapuaa, but scarcely bent the bristly hairs upon his crown.

With a semblance of wonder the executioner, whose tender blows would have scarcely maimed a mouse, dropped his club and said:

“Three times have I tried and failed to slay him! The gods refuse the sacrifice!”

“It is so, it is so, it is so!” chimed his companions. “The gods indeed refuse the sacrifice! We have seen it!”

Therefore, instead of slaying Kamapuaa, the assistants, as they had been secretly instructed to do by the high-priest, removed the cords from his limbs, smeared his hair, face and body with the fresh blood of a fowl, and on their shoulders bore him back and placed him upon the altar as if dead.

The high-priest approached the apparently lifeless body, and bent for a moment over the face, as if to remove the left eye; then placing on a wooden tray the eye of a large hog, which had been procured for that purpose, he sent an assistant with it to Olopana, at the same time retiring within the inner court, and leaving by the side of Kamapuaa, and near his right hand, as if by accident, the sharp ivory *pahoa*, or dagger, with which he had, to all appearance been operating.

Giving but a single glance at the eye presented to him by the assistant of the high-priest, Olopana passed it to an attendant without the customary semblance of eating it, and approached the altar alone. Kamapuaa did not breathe. His face was streaked with blood, his eyelids closed, and not a single muscle moved to indicate life.

Olopana looked at the hated face for a moment, and then turned to leave the *heiau*, not caring to witness the ceremonies of formal offering. As he did so Kamapuaa clutched the dagger beside his hand, and, springing from the altar, drove the blade into the back of Olopana. Again and again he applied the weapon until the chief, with a groan of anguish, fell dead at the feet of his slayer.

Horrified at what they beheld, the attendants of Olopana sprang toward their fallen chief. But their movement, whatever their import, did not disturb Kamapuaa. He had been accustomed to meeting and accepting odds in battle, and when he had secured possession of the *ihe* and huge axe of stone conveniently placed for his use behind the altar, he boldly approached and invited an encounter.

But the challenge was not accepted. The attendants of the chief did not ordinarily lack courage, but they were unnerved at the sight of a victim, slain, mutilated and laid upon the altar by the priest, coming to life and springing to his feet full-armed before his enemies.

Appearing upon the scene, the high-priest expressed great surprise and horror at what had occurred, and his assistant wildly clamored at the sacrilege; but no hand was laid upon Kamapuaa, and the friends of Olopana finally left the *heiau*, taking his body with them.

This tragedy in the *heiau* of Kawaewae created a profound excitement in the district. Had Kamapuaa been at all popular with the masses the death of Olopana at his hands would have occasioned but little indignation; but as many beside the dead chief had suffered through his plundering visitations, and hundreds of lives had been sacrificed in his pursuit and final capture, the people rose almost in a body to hunt him down and destroy him (Kalākaua 1990: 145-147).

This tradition of Kamapua‘a continues with the conclusion that he was able to escape from the outraged masses’ clutches and set sail with his small group to the windward islands in a fleet obtained from the people of ‘Ewa. According to Kalākaua, ‘Olopana was responsible for the erection of the heiau in Kāne‘ohe that Kamapua‘a was brought to for sacrifice to the gods, and Kalākaua later names it the “*heiau of Kawaewae*” (Kalākaua 1990: 147). Kāwa‘ewa‘e Heiau is located within the petition area for the HMP expansion and it has been included in the proposed CP plans. The above passage regarding Kamapua‘a and his father/uncle ‘Olopana directly links the demigod to this heiau and its description as a location of sacrifices to the gods designates it as a luakini heiau.

Kamapua‘a’s genealogy is stated through S.W. Kahiolo’s contribution to the native newspaper *Ka Hae Hawaii* in 1861, as translated by Esther Mo‘okini et al. (Kahiolo 1978):

HE MOOLELO NO KAMAPUAA.

Helu.---1.

Ma ka mookuauhau no Kamapuaa a loa mai oia; oia keia e hoikeia aku nei, i mea e ikeia ai kona ano kupanaha, a me kona ikaika ma ke kua ana, a me ke ano e o kona kino, a me kana mau hana. O keia kanaka, ua hoomana ia no i akua e ko Hawaii nei poe; aka, aole o'u manaolana, ua ka like loa ka poe kuauhau a pau e noho mai nei, aole no hoi akaka ka mea pololei loa; no ka mea, aole hookahi o lakou mea e ola ana, i ike i na mea i hanaia ia wa, aole no hoi o lakou mea i kakau buke mookuauhau nana, a waiho mai na kana mau pua; no ka mea, he pono paanaau wale no, a nalowale iho.

A TRADITION OF KAMAPUAA

Number – 1

In the genealogy of Kamapuaa are found descriptive accounts of his extraordinary appearance, his strength in battle, the strange nature of his physical body as well as all his exploits. This human was worshipped by the people of Hawaii and became a god. However, I do not expect all the genealogists here and now share the same opinion. What was correct has not been brought to light since not a single one among those alive knew the things that were done at that time. Also no one among them wrote his own genealogical book to be set aside for his descendants. In the past, it was proper to commit that to memory alone, and it is now

O Kanananuunuikumamao ke kane, no Waihee, Maui, o Humahuma ka wahine, no Kuaihelani, mai Kahiki mai, a hanau mai ka laua keiki o Kamauluaniho he wahine, hanai ia iho la ia mauka o Waihee, he mau kahu okoa no, a nui oia a wahine maikai, hoomoe ae la o Humahuma i kana kane me ke kaikamahine a laua, i mea nona e kaawale ai, a e hoi oia i Kahiki; i ka ike ana ona ua moe ae la laua, o kona manawa no ia i ai; ia laua i moe ai, hanau mai ka laua keiki o Hina, he wahine, hooiki iho la o Kamauluaniho i wahine na Olopana, ke alii o Oahu nei.

I ka hanai ana a nui oia a wahine maikai, holo mai la laua i Oahu nei, e hooiaio i kona hooiki ana i kana kaikamahine i wahine na Olopana, elua hoi kanaka i alo pu mai ia laua maluna o ka waa, a pae lakou ma Pahonu, i Waimanalo, ua kapu hoi o Oahu nei, no ke kukulu Heiau a Olopana, (o Kawaewae ka inoa o ua Heiau la,) hea aku la na kanaka o uka nei, ua kapu o Oahu nei, aohe waa holo mai; o kekahi kanaka hoi, holo aku la e hai ia Olopana, aia no ia ma Kaneohe, a hiki aku la oia, hai aku la, "He waa hoi paha mai Maui mai, elua kane, elua wahine, he mau

forever lost.

Kanananuunuikumamao, the husband, was from Waihee, Maui, and Humahuma, the wife, was from Kuaihelani, Kahiki. To them was born a female child, Kamauluaniho, who was brought up in the uplands of Waihee. She was attended to by a number of special servants, while growing up to become a beautiful woman. Humahuma caused her husband and their daughter to mate, because she wanted to leave and return to Kahiki. When she saw the two lying down together, it was then that she left. After sleeping together, their child, Hina, a female child was born. Kamauluaniho promised her as wife to Olopana, chief of Oahu.

She was looked after and she grew up a beautiful woman. Then the two, Kamauluaniho and Hina, came here to Oahu to carry out Kamauluaniho's promise of giving her daughter as wife to Olopana. Two men went along with the two women in the canoe. They landed at Pahonu, Waimanalo. Because of the construction of Olopana's temple, named Kawaewae, Oahu was under a *kapu*. The people up on high ground called out saying that Oahu was under a *kapu* and that no canoe could come ashore. One of the men ran to Olopana, who was in Kaneohe.

wahine maikai." Pane aku la ke alii, o hoi, o na kane make iho, o na wahine e lawe mai, no kona lohe ana he mau wahine maikai, i wahine na kona kaikaina na Kahikiula, hoi mai la oia a make iho la na kane, a lawe ia aku la laua nei, a hiki i ke alii, ninau mai la, "Heaha ke kumu o ko olua holo ana mai i Oahu nei?" Pane aku la o Kamaulaniho, "Ua hoohiki wau i ka'u kaikamahine nei la, i wahine nau;" nana ae la o Olopana, he wahine maikai io no, pane mai oia, eiae kana kane o kuu kaikaina, ae aku la no o Kamaulaniho.

I ke akaka ana ae la o Kahikiula ke kane a Hina, mamuli o ka hoomoe a Olopana, hoihoi ia ae la lakou nei i Kaluanui e noho ai; aka, aole i pono ia i ko Hina manao, no ka mea, aole i ko ka hoohiki a kona makuahine, nolaila, aole noho pono oia me Kahikiula, a lohe o Kamaulaniho i keia pono ole, huhu aku la oia ia Hina, me ka manao no Hina ka hewa, pane mai la oia i kona makuahine me ka pololei, aole keia o Olopana, ka mea au i hoohiki ai na'u o ka'u kane ia, i mai la o Kamaulaniho, ua pono oe, a ua hewa wau; aka, ua pono no, no ka mea, na Olopana keia hoomoe o kau kane keia, a o kona kaikaina pono no hoi keia, a ma ia olelo a

When he arrived, he reported, saying, "There is a canoe from Maui with two men and two women, beautiful women." The chief said, "Return and kill the men, but bring the women to me." He had heard of the beauty of the women and these he wished as wives for his younger brother, Kahikiula. That man went back, killed the men, and brought the women to the chief, who asked them, "Why have you two come to Oahu?" Kamaulaniho answered, "I promised my daughter here to be your wife." Olopana looked her over and saw she was indeed a beauty. He then said, "There is your husband, my younger brother." Kamaulaniho agreed to that.

It was understood that Kahikiula was husband to Hina owing to Olopana's order that they sleep together. They went to Kaluanui to live. However this was not right in Hina's mind because her mother's promise was not fulfilled. Hina refused to settle down to live with Kahikiula. When Kamaulaniho heard of this disobedience, she, believing Hina wrong, became angry at her. Hina corrected her mother saying, "This is not Olopana the one you promised would be my husband." Kamaulaniho said, "You are right and I am wrong. But it is settled because Olopana arranged this sleeping together. This is your husband, who is his own

Existing Resources

Kamauluaniho pela, moe iho la laua, a hanau mai la he mau kaikamahine o Keaokiikii, a me Keaokauikalaeomakahaloa, a make no laua, hanau mai la o Kaikihanuakele, he kane ia.

Noho iho la o Olopana, a aloha mai la i kona kaikaina ia Kahikiula, hele aku la oia e ike, moe ae la oia me Hina, hanau mai la o Kekeleiaiku, noho hou ae la no o Kahikiula ma, hanau mai la o Kamapuaa; aole nae oia i hanau kino kanaka, he ano kaula kona, hoowahawaha iho la kona mau makua; aka, o Kamauluaniho a me Kekeleiaiku, kekahi kaikuaana, ua malama no laua ia ia maloko o ke kuahu, ma ke ano hoomana no ka hana ana, a ma ia hope iho, lilo ae la oia i puua, aole nae mea i ike, o Kamauluaniho wale no.

I ka wa i hele ai o Hina, oia kona makuahine e auau, ua ike e ae la no ua puua nei, pii e aku la oia mai ke kuahu aku a hiki i Oilowai, o kona pani iho la no ia, hoi ka wai iuka, aohe wai ona e auau ai, hele huli aku la oia a loa kahi ana i pani ai, noho iho la oia ma kapa wai. Oli mai la ua keiki puua nei, me he kanaka la e hoike mai ana i kona makuahine, he keiki puua oia nana.

younger brother.” After Kamauluaniho said this, Hina and Kahikiula slept together and she gave birth to two daughters, Keaokiikii and Keaokauikalaeomakahaloa, who both died. Later, Kaikihanuakele, a son, was born.

Olopana remained at his place of residence, but when love for his younger brother, Kahikiula, became too great, he went to visit him. There he slept with Hina, who gave birth to Kekeleiaiku. Kahikiula and Hina mated again, and she gave birth to Kamapuaa. However, he was not born in the body of a human, but like a piece of cord. His parents despised it, but Kamauluaniho and Kekeleiaiku, an older brother, watched over it in an altar, worshipping it. Later, it became a pig, and was not seen by anyone except Kamauluaniho.

When Hina, his mother, went to bathe, this pig having known beforehand of her whereabouts, climbed out of the altar and went ahead to Oilowai. There, he dammed up the water, sending it further upland so that there was no water for her to bathe in. She went searching, found the place where it was stopped up, and sat down at the edge of the water. The pig-child chanted like a human in order to reveal to his mother that he was her pig-child.

Eia Kamauluaniho,
Hoopuka i ke ao malama,
Hanau o Hina, he kanaka,
Oia o Kekeleiaiku,
Keiki a Kahikiula,
I noho i ka uka o Oilowai,
Kahea i ka makuahine,
Ua ao e, ua ao e, ua malamalama,
Kalia aku ana i ka hoku hiki kakahiaka,
E kau iluna o Hihimanu,
He po okoa wale no keia,
Ua kau holo wi ka malama,
Ua pua hilo e ka makani,
Hina ka puu kanahale,
I ka lua i Pohakueaea nei la—e,
Eia hoi, eia hoi au he keiki puaa,
A olua i kiola ai,
A olua i haalele ai,
Eia hoi au he kuaua makani,
E pa mai ana maluna o Hanakaumalu,
Puluhi kai, lai Kahiki akea,
Ku lua na Opuua noho uka,
I uka kaua e noho ai,
I ka nahele o Kaliuwaa,
Ke ka ia la hoi ka wai,
E ka puaa inu wai ino,
Hoehaa hoi ko'u inoa—e.

S. W. KAHILOLO.

Kalihi, Oahu, June 22, 1861.

“Here is Kamauluaniho,
Emerging in the light of day,
Hina gave birth to a human,
He is Kekeleiaiku,
Child of Kahikiula,
Who sat in the uplands of Oilowai,
Who called his mother.
It is dawn, it is dawn, there is light,
Waiting for the morning star,
That stands above Hihimanu.
This is a wholly separate night.
The long thin moon has set,
Made slender by the wind.
This hills in the forest tumble down
Here into the pit at Pohakueaea.
Here, here am I the pig-child,
Thrown away by you two,
Abandoned by you two.
Here I am, a wind-driven rain,
Blowing over Hanakaumalu,
Soaking the lowlands. Broad Kahiki is calm.
The clouds of the uplands stand in pairs.
In the uplands, let us two go to live,
In the forests of Kaliuwaa,
Where the water is bailed out
By the pig who drinks foul water,
My name belies me.”

S. W. KAHILOLO

Kalihi, Oahu, June 22, 1861.

S.W. Kahiolo's account of Kamapua'a's genealogy establishes that Kamapua'a was the son of Kahiki'ula rather than 'Olopana, while Kalākaua does not definitively state the demigod's paternity. In this account, Kāwa'ewa'e Heiau was already in construction some years before the events of 'Olopana's death in that same heiau. Scholars believe that Kāwa'ewa'e Heiau was constructed in the beginning of the 12th century, and tradition states that menehune were responsible for its construction (Fornander 1878). Kahiolo's account also states that Hina "despised" her child, while Kalākaua's Hina did everything in her power to protect her son from 'Olopana's wrath. There are various different accounts of Kamapua'a's genealogy and actions, but all accounts tie the demigod to Kāne'ohe and Kāwa'ewa'e Heiau.

The following mo'olelo was written by J.L. Keaulumoku for the Hawaiian language newspaper *Ku Okoa* in 1874 and translated by Mo'okini et al. (Kahiolo 1978), concerning the naming of the valley Kaliuwa'a and its connection to Kamapua'a and Kāwa'ewa'e Heiau.

"Kumumanao" – A Subject of Thought (1874)

<p>Heaha ke ano ka huaolelo Kaliuwaa? Aole no e loa kona ano ke loa ole ka moolelo, ina e loa ka moolelo, loa no ke ano, pono no au e hai pokole aku i ka moolelo; a penei no ia:</p> <p>— O kekahi kupua i ka wa i au wale ka la, oia o Kamapuaa ka mea nana i aihue ke kapu moa a Olopana ka moi o Oahu. No ka pau ana oia kapu moa ua pau ia Kamapuaa, a no keia pau ana o ka moa ua hoouna aku ka moi Olopana i na koa hookahi mano, e kii e lawe mai ia Kamapuaa a e pepehi a kau i ka lele ma ka heiau o Kawaewae i Kaneohe i Koolaupoko, i ko lakou hopu ana ia Kamapuaa a paa i ka nakinaki a amo aku la</p>	<p>What is the nature of the word Kaliuwaa? The nature of its meaning will not be gotten if one does not have its tradition, if you have the tradition, you get the nature; thus, I need to tell a short story; and it is this:</p> <p>— There was a supernatural being (demigod) in days long past, it was Kamapuaa, the one who stole the restricted chickens of Olopana, the king of Oahu. Because the restricted chickens had been taken by Kamapuaa, Olopana sent 4,000 warriors, to get and bring Kamapuaa to the altar on the temple of Kawaewae at Kaneohe, Koolaupoko. When they captured Kamapuaa, they secured him, with ropes to</p>
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ua koa me ka manaolana e ko ana ko lakou makemake, a me ka makemake o ka moi Olopana.

Aia nae ia lakou e auamo ana i ka puaa a hiki i Kupinai, ka hea mai la ke kupunawahine penei: “O oe o Haunuu, e Haulani, e Kamamo o ka ia nui la e uilani.” Uilani ae la ua puaa nei a hemo, a o ka hoomaka aku la no ia ia ka luku i na kanaka koa a pau i ka make, a koe wale no hookahi kanaka, a oia no ka ahailono nana i lawe aku i ka lohe, a hai aku ia Olopana, i ka ia nana aku, “Ua pau loa no koa i ka make, a owau wale ia la i hookoe ia mai nei i ahailono e hai aku imua ou e ka Moi.”

Aia nae a lohe o Olopana i keia olelo, ulupuni koke ae la oia i ka huhu, a kena ae la i kana mau kukini mama, e hai aku i ka lohe i na kanaka a pau i kupono no ka hele ana i ke kaua, e noho ana a puni o Oahu nei. A mamuli o ke kauoha Alii, ua akoakoa mai la na kanaka, a ma ka heluia ana, ua hiki aku ka heluna nui i ka eha mano, oia ma ka helu a Hawaii nei, a ina hoi ma ka helu haole, alaila, ua like me 16,000.

Ma keia hoouna hou ana a ke alii, ua like no ka hoouna mua ia ana, ua pau loa kela eha mano i ka make, a koe no hookahi kanaka, a

a carrying stick. The warriors thinking, that they had fulfilled their desire, and that of the king, Olopana.

As they secured the pig and carried him to Kupinai, the grandmother called out, thus: “You are Haunuu, Haulani, the great shark fish, arise.” The pig arose and freed himself, and then began to destroy and kill all the warriors. There remained only one man alive, and it was he who bore the message to Olopana, telling him what he had seen; “All of the warriors have been killed, and only I remain, to come before you and tell you.”

When Olopana heard this his anger grew, and he ordered his fastest runners to tell all the people of Oahu that they were to prepare for war. As a result of the kings’ command, all of the people assembled, and in count, they could be numbered at four-four thousands, that is in the counting of the Hawaiians, and if in the counting of the foreigners, it would be equal to 16,000.

Thus, the king sent them, and like those first sent, the four-four thousands were all killed, leaving only one man, and it was that man

na keia kanaka no i lawe aku i ka lono poino a hai aku ia Olopana.

Ma keia poino hou ana, ua eu kino maoli ae ka Moi Olopana, me na koa i hele a hewa i ka wai ka nui o ua mea he kanaka, me kona lohe no hoi he kino papalua ko ka puua, he hapa i ka puua a hapa i ke kanaka, aka, hooulu no oia i ke kaua, no ka minamina i kana kapu moa, a ole nae he minamina i ke kanaka. Ke i ae nei hoi o Keeaumoku ia Kiwalao, “O ka niho ka kau mea malama, aohe manao e o ka hulu makua?” Pela hoi o Olopana, o ke kapu moa kana i minamina, aole nae o ke kanaka, ka paku e paa aia kona aupuni a e mau ai kona noho alii.

A ma ke ano mana o Kamapuaa, ua ike no oia i ko Olopana manao a me ke kaua huliamahi e hiki mai ana, nolaila, olelo aku oia i na makua, na kaikuaana a me ke kupunawahine, “E pono paha e lawe au ia oukou e huna iluna o ka pali, no ka mea, ei ae ka make a hiki mai i o kakou nei, oiai he huliamahi ke kaua, a o ka wa pono keia.

A hala he mau la, lawe ae la ua Kamapuaa

who took the news of the disaster to Olopana.

As a result of this new disaster, the King, Olopana, was truly agitated by the loss of the warriors who—those who had mistakenly entered the waters (of battle)—so many people had been lost. By this, he understood that the pig had dual body-forms; that of a pig, and that of a man. But he (Olopana) had urged his people to war, because of his cherished chickens, he did not cherish his people. Keeaumoku said to Kiwalao [at the battle of Mokuohai], “So it is the tooth pendant that you cherish, with no thought of your precious relative?” It was the same with Olopana, it was his restricted chickens that he cherished, not the people, those which were sent out to secure his kingdom, and his right to rule.

And through his power, Kamapuaa knew Olopana’s thoughts, and that there was a great war party on its way, thus, he (Kamapuaa) said to his parents, elder siblings, and grandmother, “It is perhaps best that I take you and hide you atop the cliffs, lest you be killed, for there is approaching us a great war party, and this is the right time.

There passed several days, and Kamapuaa

nei i kona ohana, a hiki i kekahi wahi ololi, a kiekie ana kona piko i ka welau pali o luna loa, (ma ka ike a ka poe pii pali, ma ka hookuukuu kaula ana, he elua haneri anana a oi aku), me kona olelo aku, “O keia mau awawa ko kakou mau waa a’u e hoopii aku ai, a ina e hiki ole oukou ma nei waa, alaila, ma kahi waa iki paha. A no ka makau o ke kupunawahine, ua hoopiiia lakou ma kahi waa uuku, a ua noho lakou maluna o na ana pali o Kaliuwaa me ka maluhia a hiki i ka lanakila loa ana o Kamapuaa.

Ua kapaia o Kaliuwaa, ma ka hoopii ia ana o kona ohana maluna o na waa ana i kapa ai o Kaliuwaa, oia kela inoa a hiki i keia la. Na ka puua i kapa ka haiano a me ke paniinoa, oia keia ke huiia, “Kaliuwaa.”

O ka wailele kokoke no i na waa, a o ke kiowai auau, ei aku mauka, a malaila kahi makaikai a na malihini kaahale e auau ai. O ke kiekie mai ka piko o ka wailele maluna loa a hiki i ka wailele o lalo a i ke kiowai auau, ua manao au he 1,600 kapuai ke kiekie. A o keia wahi e oleloia nei, aia no ma Kaluanui, Koolauloa. He nui na moolelo e pili ana no keia awawa o Kaliuwaa.

J.L. Keaulumoku.

[Ku Okoa, Febuali 7, 1874]

took his family to this narrow place, and caused his umbilical to rise to the very top of the cliffs, (it was like those people who climb the cliffs by the letting down of the ropes; it was more than two hundred fathoms long). He then told them, “These gulches are our canoes, upon which I shall climb, and if you cannot get on this canoe, then perhaps you can get on the smaller canoe.” Because the grandmother was afraid, they climbed up the smaller of the canoes, and they stayed above the cliffs of Kaliuwaa, in peace until Kamapuaa’s victory.

So it is called Kaliuwaa, from the climbing up of his family on the canoes, that Kaliuwaa is so named to this day. It was from the pig, describing the nature of the giving of the name, that they are called “Kaliuwaa.”

The waterfall is close to the canoes, and the bathing pool, it is there in the uplands, and it is there that visitors travel to swim. I think that it is about 1,600 feet high. This place spoken of here, is at Kaluanui, Koolauloa. There are many stories about this valley of Kaliuwaa.

J.L. Keaulumoku.

[In the Ku Okoa, February 7, 1874]

The following mo'olelo appeared in the Hawaiian language newspaper *Ka Hae Hawaii* in August of 1861. This mo'olelo follows Kamapua'a and his grandmother as they transport the taro pulled from the fields. As they travel, both Kamapua'a and his grandmother chant, and Kāwa'ewa'e Heiau is called by name.

80 KA HAE HAWAII, AUGUST 14, 1861.

80 KA HAE HAWAI'I, AUGUST 14, 1861

HE MOOLELO NO KAMAPUAA.

A STORY ABOUT KAMAPUA'A

Helu----8.

Number----8

Nonoi aku la o Kamapuaa i kekahi kanaka o ke alii e uhuki ana i ka ai, "Homai na'u e uhuki ka kaua ai, e noho wale no oe." Ae mai la ua kanaka nei, ae, o uhuki, nau no hoi kekahi, a na'u no hoi kekai, huhuki iho la keia a loa ka ai, aole o kanamai ua ai, hana iho la keia i ka haawe, he haawe hiki kupono ole i ke kupunawahine ona, no ka nui launa ole mai o ka ai. Kahea aku la oia i ke kupunawahine ona, amo ia ae hoi paha ko ai, olelo aku la o Kamauluanoho ia ia, "Aole paha e hiki ia'u," Olelo mai la oia, hiki no, haawe ae la ua kupunawahine nei, kahea ae la keia i na akua ona, "E! O ke kaumaha o ka haawe ia oukou, o ka mama o ka haawe i ka hookapu-hi o oukou."

Kamapua'a asked one of the chief's men who was pulling taro, "Let me pull the taro for us. You just sit." The man agreed to it saying, "Okay, you pull and you have some and I'll have some." So he pulled and got some taro, and it was a lot of taro, and he made a bundle to carry on the back, a bundle that his grandmother would not be able to carry being such a huge bundle. He called his grandmother and said, "Carry your bundle." Kamauluanoho answered and said, "I can't carry that." He answered and said, "Yes you can," and his grandmother put it on and he called out to his gods and said, "Let the weight of the bundle be all of yours, and let the lightness of the load be upon the caretaker of yours."

I ke amo ana ae o ua Kupunawahine nei i ka haawe ana, ka hoi aku la no ia me ke ano kaumaha ole, hele aku la no o Kamapuaa

When his grandmother lifted her bundle they headed off as if there was no weight at all, and Kamapua'a travelled behind her and

mahope ona, kau mai la ke ano aloha i ua
kupunawahine nei. Oli mai la oia me ka
ninau mai, i maopopo o kana moopuna no
keia, penei:

"O oe no ia e Haunuu,
E Haulani,
E Kaalokuloku,
Ka mano ka ia nui,
E ui—e, e ui-lani,
Kou inoa, e o mai."

O aku la keia me ka hai aku, owau no nei o
Kamapuaa, a lohe pono oia, o ua moopuna io
no nei ana; alaila kona kahea mai la no ia i
kona poe inoa, (oia hoi he nui na mele,) penei:

"Hanau ae no apopo, ka olua keiki,

Kou inoa no ka hoi kena,
Ili ala i ka hau anu o Kaala,
Ka ili mahuna i ka awa

I noho iuka o Kaliuliu peapea,

Maka i o akua,
O ka ua ili noe awa,
I ke hau anu o ke keke,
Iuka ka hala me ka lehua,
Kupu i ka uka o Kaliuwaa,

he was filled with love for his grandmother.
She chanted and asked in her chant if her
grandson was aware, and this is what she
chanted:

"It is you, Haunu'u,
Haulani,
Ka'alokuloku
The shark, the large fish,
Ask, ask of the chief
It is your name, answer back."

He answered and said, "I am Kamapua'a,"
and she heard that he truly was her
grandson; then she called out his names
(actually, there are many chants), and this is
what she said:

"Giving birth tomorrow, the child of you
both
That is actually your name
Fragrant skin in the chilling wind of Ka'ala
The scaly skin caused by excessive 'awa
drinking
Having lived inland of Kaliuwa'a at the
crossing
The eye on the night of Akua
The rain misty as if intoxicated by 'awa
In the cold wind that chatters the teeth
Inland where the hala and lehua grow
Growing inland of Kaliuwa'a

O kou inoa, ia e o mai.”	It is your name, answer back.”
O aku la no Kamapuaa. Oli hou mai la oia, penei:	Kamapua‘a answered back and he chanted back saying:
“Hanau ae no apopo, ka olua keiki,	“Giving birth tomorrow, the child of you both
Kou inoa no ka hoi kena,	That is actually your name
Ka hanohano maka o ka lani,	The glorious eye of the heavens
Kunou maka o ka lani,	The eye of the heavens looking down
Awihī maka o ka lani,	The eye of the heavens winking
I haalele aku ai,	That left
E ku ka iwi i ka ahumanu,	May the bones stand adorned with a feathered cloak
E Ku, e Kane, e Kanaloa,	Oh Kū, Kāne, Kanaloa
Na’lii na aumakua o ka po,	The chiefs, the ancestor guardians of the night
Na aumakua o ke ao,	The ancestor guardians of the day
Ke akua maka iolea,	The unfriendly eye of the god
Imua i Kawaewae,	At the front at Kawa‘ewa‘e
O kou inoa ia, e o mai.”	It is your name, answer back.”
O aku la no o Kamapuaa. Oli hou mai la oia, penei:	Kamapua‘a then answered back and chanted, saying:
“Hanau ae no apopo, ka olua keiki,	“Giving birth tomorrow, the child of you both
Kou inoa no ka hoi kena,	That is actually your name
O Hiwahiwa no oe,	You are Hiwahiwa (beloved)
O Hamohamo na,	You are Hamohamo (caressed)
O ka maka o ke akua,	The eye of the god
Lele oili i ka lani,	The perturbing heart of the heavens
O haki, o ne, o na,	Haki (to break), Nē (to groan), Nā (to

	satisfy)
O ane ka la,	Sun drawing near
O ka'u hua, ka'u lani,	My progeny, my chief I appointed
O hookokohi ka lani,	Darkening of the sky
O kanaka oe,	You are Man
I hanau iuka o Kaliuwaa,	Born inland of Kaliuwa'a
Ewalu ka wawae,	With eight legs
He kanaka ka manea,	The hoof is a man
O ka lau o hiwa,	The great blackness
O ke ki o ki-kea,	The tī plant, the white tī
O ka nana-kea,	The pale one
O ka hahi-kea,	The white step
O ke kakalaunu,	The spike altar of a heiau
O ke kakala wela,	The hot spike
O ka ehū, o ka uli,	The red-haired one, the dark one
Ka hiwa, ka mahakea,	The black one, the mahakea 'awa
Ke kukui, ke amaumau,	The kukui tree, the 'āma'uma'u fern
Ka hala uhaloa,	The hala, the 'uhaloa
Ke a oo, ke a piwai,	The mature jaw bone, the jaw of a piwai duck
Ka haole nui maka alohilohi,	The large foreigner with bright eyes
Ke ao puaa i ka lani,	The pig cloud in the sky
Na kino puaa o Kama i ka nahelehele,	The multiple pigs of Kama in the brush
O Haunuu oe,	You are Haunu'u
O Haulani na,	Haulani
O kaalokuloku,	Ka'alokuloku
Ka mano ka ia nui,	The shark, the large fish
E ui—e, kou inoa, e o mai."	Ask, it is your name, answer back."

O aku la no keia. Oli hou mai la no hoi
kela, penei:

“Hanau ae no apopo, ka olua keiki,

O kou inoa no ka hoi kena,

O kaulua ka hoku,

O ko eleele ka malama

Hanau ka nalu, ka inaina,

Puhee mai ahu lele

Kahe mai ka wai puna la o uka,

Ka! ka wai auau o ke kanaka,

I hanau ia Hooilo,

Ka mano poha ko eleele,

O Ikuwa ka hoku,

O ko eleele ka malama,

Hanau o Kama,

Hanau o Kaneiahuea,

He akua ia,

He kanaka o Kama,

Kou inoa ia, e o mai.”

O aku la no keia. Oli hou mai la no hoi
kela, penei:

“Hanau ae no apopo, ka olua keiki,

O kou inoa no ka hoi kena,

He miki, he miki,

I hanau ia mai oe e Hina,

Ka maka o ka puua,

E lele ana i ka lani,

He answered back and she chanted back
again, saying:

“Giving birth tomorrow, the child of you
both

That is actually your name

The star is Kaulua (double-hulled)

The month is Kō‘ele‘ele (thundering noise)

The wave is born, along with the anger

The altar of the heiau escapes

The water of the inland spring flows

Oh, the bathing water of men

Born in the winter season

The great explosions of thunder

‘Ikuā is the star

Kō‘ele‘ele is the month

Kama is born

Kāneiahuea is born

It is a god

Kama is a man

It is your name, answer back.”

He answered again and she chanted again,
saying:

“Giving birth tomorrow, the child of you
both

That is actually your name

Quick, quick

You have been born of Hina

The eye of the pig

Flying up to heaven

E lele ana i kuahiwi,	Flying up to the mountain
I ka he mauna o Peapeamakawalu,	To the mountain grave of Pe'ape'amakawalu
Ewalu ka maka o ke keiki puaa a Hina,	Eight eyes of the child pig of Hina
Na Hina no oe,	You are Hina's
Na Kahikiula,	Kahiki'ula's
Na Kahikilei,	Kahikilei's
O Lonoiki oe,	You are Lonoiki
O Lononui oe,	You are Lononui
O kuu maka,	My eye
O kuu aloha nei la,	My affection
E Lono—e,	Oh Lono
A haina a moe i kuaahu a Olopana,	Offered as a sacrifice laid on the altar of 'Olopana
A ko kakou alii,	Of our chief
Kou inoa, e o mai."	It is your name, answer back."
O aku la no keia. Oli hou mai la no ua kupunawahine nei, penei:	He answered back and his grandmother answered again, saying:
"Hanau ae no apopo, ka olua keiki,	"Giving birth tomorrow, the child of you both
O kou inoa no ka hoi kena,	That is actually your name
O Kaneiahuea oe,	You are Kāneiahuea
Ke akua maka oioi,	The pointy-eyed god
Nana ka maka i ka lani,	The eyes look up to the heavens
E kilo ana i ka moku nei,	Surveying this island
I Kahiki ua lani,	The chief is in Kahiki
Ka pauu e Lono i ka haiuiu,	The sweet potato, o Lono, in the lofty heights
Hiiaka oe i Puuokapolei,	You are Hi'iaka at Pu'uokapolei

Ke akua oe o Haia,	You are the god, Haia
O Haia oe, kou inoa, e o mai.”	You are Haia, it is your name, answer back.”

Scholar Cristina Bacchilega offers insight into this particular mo‘olelo by stating that it “illustrates how a desperate situation can be overturned” (2011: 53). Kamapua‘a is captive and wounded in this mo‘olelo but his grandmother’s chant strengthens his resolve so that he is eventually able to defeat ‘Olopana and his forces (Bacchilega 2011).

2. Ruling Chiefs of O‘ahu

The genealogy of the ruling chiefs of O‘ahu can be traced back to Nana‘ulu, the son of Ki‘i and Hinako‘ulu. The chiefs of Maui and Hawai‘i generally trace their genealogy back to ‘Ulu, the brother of Nana‘ulu, and both the Nana‘ulu and ‘Ulu genealogies stem from Wākea and Papa. Beckwith describes the connection of Wākea and Papa to the Hawaiian ruling chiefs in the following passage:

Wakea, from whom all Hawaiian genealogies stem as the ancestor of the Hawaiian people, “both chiefs and commoners,” is regarded as a man in Hawaiian tradition, not as a god as in southern groups. Stokes thinks him a duplicate of Ki‘i, twelfth in descent from Wakea, husband of Hina-Koula, and father of Ulu and Nana-ulu. The southern equivalent of Ki‘i is Ti‘i or Tiki, the first man, generally coupled with the story of the bird of the first woman out of a pile of sand impregnated by Tiki, a tradition which Stokes sees reflected in the Hawaiian euphemistic version of Wakea’s infidelity to his wife Papa and marriage with the young daughter Ho‘ohoku-ka-lani (The heavenly one who made the stars). The name indeed suggests that from this marriage descended the chiefs, since stars are ascribed to chiefs in Hawaiian lore.

Wakea is called the son of Kahiko-lua-mea (Very ancient and sacred) and his wife Kupulanakehau. To them are born Lihau-ula (Liha-ula, Lehu-ula) from whom are descended the priests (kahuna) and Wakea from whom come the chiefs (ali‘i). From a third son, Maku‘u, some say by another wife, come the

Existing Resources

commoners (maka-aina). In the fourteenth era of the Kumulipo chant occur the names of Wakea, Lehu-ula (Liahu-ula) and Makulukulu-kaee-a-lani (Makuu) in connection with the name Paupani-a(wa)kea, a name applied either to Wakea alone or to the whole family group named above (Beckwith 1970: 294-295).

According to Beckwith's account, Wākea and his brothers are the direct ancestors of all priests, chiefs and commoners. Twelve generations after Wākea and Papa is Ki'i and his wife Hinako'ulu, who birthed the next line of chiefs, namely descendants of Nana'ulu and 'Ulu. The lineage of the ruling chiefs of O'ahu can be followed from Wākea to Kumuhana and Kahahana in the following table, derived from McGregor and MacKenzie's "Mo'olelo Ea O Nā Hawai'i: History of Native Hawaiian Governance in Hawai'i" (2014).

Table 3. The Genealogy of the Ruling Chiefs of O'ahu (not a listing of the Chiefs of O'ahu)

Chief	Wife	Child
G 46 300 AD Wakea	Papa	Hoohokukalani
Manouluae	Hoohokukalani	Waia
Waia	Huhune	Wailoa Hinanalo (Wailoa)
Wailoa Hinanalo (Wailoa)	Hikawaopualanea Haunuu (Hikawaopualanea, Hikawaoopuaiane)	Kakaihili (Nanakaihili)
Kakaihili (Nanakaihili)	Haulani	Kia Kio
Kia Kio	Kamole	Ole
Ole	Hai	Pupue
Pupue	Kamahele	Manaku
Manaku	Hikohaale	Nukahakoa Kahiko
Nukahakoa Kahiko	Koulamaikalani Kaea	Luanuu
Luanuu	Kawaamaukele (Kawaomaukele)	Kahiko Kii

Chief	Wife	Child
Kahiko Kii	Kaea Hinakoula	Kii Nanaulu
Nanaulu	Ulukou	Nanamea
Nanamea	Puia	Pehekeula
Pehekeula	Uluae	Pehekamana
Pehekamana	Nanahapa	Nanamua
Nanamua	Nanahope	Nanaikeauhaku
Nanaikeauhaku	Elehu	Keaoa
Keaoa	Waohala	Hekumu
Hekumu	Kumukoa	Umalei
Umalei	Umaumanana	Kalai
Kalai	Laikapa	Malelewaa
Malelewaa	Piliohai	Hopoe
Hopoe	Hauananaia	Makalawena
Makalawena	Koihouhoua	Lelehooma
Lelehooma	Hapuu	Kekupahaikala
Kekupahaikala	Maihikea	Maweke
Maweke	Naiolaukea	Mulielealii
Mulielealii	Wehelani	Moikeha
Moikeha	Hinaaulua Hinauula (Henaaulua)	Hookamalii
Hookamalii	Keahiula (Keaniula)	Kahai
Kahai	Keheau	Kuolono
Kuolono	Kaneakalelei	Maelo
Lauli-a-laa	Maelo	Laulihewa
Laulihewa	Akepamaikalani	Kahuoi
Kahuoi	Palea Peleawahine	Puaakahuoi
Puaakahuoi	Nononui	Kukahialiilani
Kukahialiilani	Kokalola	Mailikukahi
Mailikukahi	Kanepukoa	Kalonaiki
Kalonaiki	Kikinuiaewa	Piliwale
Piliwale	Paakanilea	Kukaniloko
Luaia	Kukaniloko	Kalanimanuia Kalaimanuia
Lupekapukeahomakalii	Kalanimanuia Kalaimanuia	Kaihikapu-a-manuia

Chief	Wife	Child
Kahikikapu-a-manuia	Kaunui-a-Kanehoalani	Kakuhihewa
Kakuhihewa	Kaea-a-Kalona	Kanekapu-a-kakuhihewa
Kanekapu-a-kakuhihewa	Kalua-a-Hoohila	Kahoowahaokalani
Kahoowahaokalani	Kawelolauhuki	Kauakahi-a-kahoowaha
Kauakahi-a-kahoowaha	Mahulua	Kualii
Kualii	Kalanikahimakeialii	Peleiholani
Peleiholani	Halakii Lonokahikini	Kumuhana Keeaumoku III (Kumuhana was overthrown by the O'ahu council of chiefs and replaced by his cousin Kahahana.)

It is at the time of Mo'ikeha that 'Olopana rules O'ahu. (See Appendix B.) The ruling of O'ahu under separate ali'i came to an end during the reign of Kumuhana and then Kahahana. Kamakau states that Kumuhana "slept late, was stingy, penurious, deaf to the advice of others, and used to take himself off to the plains to shoot rats," and therefore the priests and chiefs overthrew Kumuhana and replaced him with his cousin, Kahahana, from Maui (Kamakau 1992: 128). Kahahana became ruler of O'ahu in 1773 and ruled for eight and half years. Although the war between Kahekili and Kalani'ōpu'u waged on Maui during this time, Kahahana was not attacked because of his relation to both Kahekili and Kalani'ōpu'u, though Kahahana did send aid to Kahekili in the form of a small number of warriors (Kamakau 1992). Years later, Kahekili plotted against Kahahana to gain control of O'ahu and Kahahana hid with his wife and friend Alapa'i until they were betrayed; Kahahana was eventually murdered and his body taken to Kahekili in Waikīkī (Kamakau 1992). Kahekili died in 1793.

In 1795, Kamehameha I sailed with his fleet to O'ahu and conquered the island during the decisive Battle of Nu'uanu. By this time, Kamehameha I had taken all islands except Kaua'i; Kamehameha eventually came to an agreement with the Kaua'i ali'i Kaumuali'i in 1810, which allowed Kaumuali'i to continue ruling over the island under Kamehameha's reign as the ali'i nui of the Hawaiian Islands (Kamakau 1992). Thus, began the reign of the Kamehameha Dynasty until Lot Kapuāiwa's (Kamehameha V) death in 1872.

3. Pre-Contact Period of Kāneʻohe

Kāneʻohe and its surrounding ahupuaʻa make up the Kāneʻohe Bay region, which has long been established as a rich center for agriculture and aquaculture. Devaney et al. elaborate about the reasons for the high population sizes of Kāneʻohe during both the pre-contact and post-contact periods:

Probably as a result of the availability of large quantities of fresh water, mainly from constantly flowing springs located high in the mountains, the land around Kaneohe Bay was once on of the most productive areas on Oahu. The fishing resources of the Bay were also highly developed and included about two-dozen walled fishponds. It is not surprising, therefore, that this area was one of the primary population centers on Oahu (Devaney et al. 1982: 6).

Kāneʻohe was a known area of early settlement and dense population and its population numbers were second only to the Waikīkī-Nuʻuanu-Mānoa complex. The entire Kāneʻohe Bay region is comprised of broad valleys and flatlands that classify it as the most extensive wet-taro area on all of Oʻahu, and these taro patches were well irrigated by both springs and streams (Handy and Handy 1972). Despite being densely populated, Kāneʻohe has not been noted as a center for political power during the reign of aliʻi; there are many notes throughout historical records, however, that Kāneʻohe was the seat of the ruling aliʻi of Koʻolaupoko (Handy and Handy 1972).

The agricultural productivity of Kāneʻohe reached its height with the cultivation of staple crops of Hawaiʻi, including taro, sugarcane, rice and pineapple. Prior to contact and modernization, taro was the predominant crop of the region, with sugarcane, rice and pineapple increasing in productivity to commercial levels in the late 19th century to early 20th century. According to Devaney et al., “the rich alluvial soils, equable climate, and abundant water supply...[allowed] the region [to have] a considerable amount of land cultivated in taro up through the early 1800s” (1982: 35).

The waters of Kāneʻohe Bay are ideal for the construction of fishponds and the ancient Hawaiians fully utilized this resource by constructing up to 30 known fishponds in

Kāne‘ohe’s history. The fishponds were the private property of Hawaiian ali‘i and royalty in historic times when “the private property system had made inroads into the undivided and use rights of the Hawaiian subsistence economy” (Devaney et al. 1982: 142). Following western contact, the Hawaiians adopted their private property concept of land ownership, so fishponds were then designated as part of the ahupua‘a to which they were attached (Devaney et al. 1982: 143). Over half of these Kāne‘ohe fishponds were filled in after World War II, and as recently as 1982 only 12 of these original fishponds remained, many of which have partial remains and “are not immediately recognizable as fishponds” (Devaney et al. 1982: 118). Prior to contact, these fishponds were an extremely important food source for the Native Hawaiians.

4. Early Historic Period to Mid 1800s

In 1795, Kamehameha I divided the conquered O‘ahu lands among his warrior chiefs and counsellors, and retained the ahupua‘a of Kāne‘ohe as his own personal property (‘Īī 1959). Much of Kāne‘ohe continued to remain as the personal property of Kamehameha I’s sons Liholiho (Kamehameha II) and Kauikeaouli (Kamehameha III) upon his death (Indices...1929).

According to estimated population data on the area, over twice as many individuals resided in Kāne‘ohe in 1779 when compared to He‘eia, which was the next most populated ahupua‘a in the Kāne‘ohe Bay region. Kāne‘ohe and He‘eia accounted for 55% of the Bay area population at this time, with estimates of roughly 15,000 to 17,000 people residing in the entire Bay region (Devaney et al. 1982). Subsequent data estimates of 1835-36 found that the population of the nine ahupua‘a from Kualoa to Kāne‘ohe had dropped by approximately 48 people since 1831-32, while Kualoa and Kāne‘ohe had increased their populations and the others decreased (Devaney et al. 1982).

a. The Māhele ‘Āina of 1848

The Māhele ‘Āina, also known simply as the Māhele, was enacted under the reign of Kamehameha III, and this event marked a dramatic shift in Hawai‘i’s traditional system of land use. Kamehameha III, through the guidance of foreign advisors, divided the lands that

had been held and administered by chiefs and their konohiki (advisors). The result of the division was as follows: approximately 23.8% (984,000 acres) of land in the Islands were allocated to the king and were dubbed the Crown lands, 39.2% (1,619,000 acres) were the konohiki lands to be divided among 245 chiefs, and 37% (1,523,000 acres) were declared as government lands, which were awarded to commoners who worked the land as active tenants (Van Dyke 2008: 42). The land division was overseen by an appointed Land Commission and Court of Claims.

Queen Hakaleleponi Kalama, wife of King Kamehameha III, received the ahupua'a of Kāne'ōhe in the Māhele. The Queen's right to fee simple title of Kāne'ōhe ahupua'a—less the legitimate claims of hoā'āina (native tenants)—was recorded on February 11, 1848 in the "Buke Māhele" or Division Book. The Buke Māhele listed nearly all of the lands and disposition of lands between the King, Konohiki, the Government and a few selected foreigners. Resolution 1 of the Privy Council confirmed Queen Kalama's allodial title to Kāne'ōhe on June 4, 1855. No details or descriptions of the ahupua'a were recorded as part of Queen Kalama's records in the subsequent volumes collected by the Land Commissioners.

Within Kāne'ōhe Ahupua'a there were several 'ili (land parcels) which were retained by the Crown, or granted to other chiefs. Over the years, these 'ili were leased or sold to various parties. Several of the lands are presented in Māhele documents, but Kāwa'ewa'e is not cited in those records.

The Māhele was followed by the Kuleana Act of 1850, which allowed commoners to petition for the title to land on which they cultivated and lived and established a fee simple ownership of land. At least 242 claims were filed by hoā'āina describing their land use and residency in Kāne'ōhe Ahupua'a. Only about half of these claims were confirmed. Taro land, fishponds, and dryland parcels for cultivation of crops and residency were the types of land claimed in Kāne'ōhe, with taro land being the most predominant (Hammatt 2008).

The hoā'āina were required to document their claims in order to gain the permanent title, and once granted, the kuleana land (as they would come to be known) was independent of the ahupua'a in which it was situated and could be sold to parties with no ties to the area.

Existing Resources

Prior to the Kuleana Act, few commoners were awarded the kuleana land by the Board of Land Commissioners; the awards issued by the five commissioners were called the Land Commission Awards (LCA) (Devaney et al. 1982). The commoners fared the worst from the Māhele, as approximately 8,000 individuals received about 2.5 acres each, which is less than one percent of the total lands (Van Dyke 2008). No claims citing Kāwa‘ewa‘e have been found in the thousands of records from the Māhele ‘Āina.

The project area currently resides within the ‘ili of Kalokoai and Pakui and the following table provided by Hammatt (2008) lists the LCAs issued within these ‘ili, as well as the ‘ili in close proximity to the project area (Table 4).

Table 4. LCAs Awarded in Pakui and Kalokoai, as well as nearly ‘ili of Kāne‘ohe

LCA #	‘ili	Claimant	Land Use	Awarded
2444	Kalokoai	Keawekukahi	2 lo‘i; 1 house lot; 3 fish ponds	3 ‘āpana; 1.808 acres
2806	Kalokoai	Kahilikoolani	2 lo‘i	1 ‘āpana; 0.839 acres
1899	Pakui, Kaluapuhi, Puuiki	Opunui	12 lo‘i; 1 house lot; loko; pali; kula	3 ‘āpana; 3.85 acres
7171	Pakui, Waikalua	Kamakahi	6 lo‘i; 1 house lot; muliwai	2 ‘āpana; 1.15 acres

Many of the Crown lands were sold and mortgaged during Kamehameha III and IV’s reigns in order to settle debts to foreigners (Chinen 1958). In 1865, the Crown lands were declared inalienable, which “eliminated the power of the Mō‘ī to sell or transfer ‘Āina that were part of the Crown Lands, dramatically changing the character of these lands and the power of the Mō‘ī” (Van Dyke 2008: 89). This Legislature also declared that the lands “shall be henceforth inalienable, and shall descend to the heirs and successors the Hawaiian Crown forever” while prohibiting any lease of Crown Lands for a period longer than thirty years (Van Dyke 2008: 90). The protection of Crown Lands was diminished following the January 17th, 1893

overthrow of the Queen Lili'uokalani and large Crown and Government land holdings were subsequently sold off.

The following table (Table 5) extracted from Van Dyke (2008) details the division of the Crown Lands of Kāne'ohe as prepared in 1894.

Table 5. The Crown Lands of Kāne'ohe

Name of Tract	Area (Acres)	No. of Lease	Lease Expires	Annual Rental	Estimated Value	Remarks
Kaluapuhi Waikalua Halekou Kano Houliwi	1,486	---	---	\$1,987	\$16,000	In 14 sections. Covered by sundry leases.
Keaahala	379	183	May 1913	\$300	\$5,000	Cane land.
Kahalekauila	---	---	---	---	---	Sold to Parker.
Kuou	---	---	---	---	---	Sold.

i. Boundary Commission Proceedings – Ahupua'a of Kāne'ohe

In 1862, a Commission of Boundaries (the Boundary Commission) was established in the Kingdom of Hawai'i to legally set the boundaries of all the ahupua'a that had been awarded as a part of the Māhele. Subsequently, in 1874, the Commissioners of Boundaries were authorized to certify the boundaries for lands brought before them (W.D. Alexander in Thrum 1890: 117-118).

In most cases, boundaries were described and confirmed through the testimonies of native informants, who were old residents of the areas being discussed. Based upon events described at the time of their birth, the oldest informants were born around 1790, and the youngest, born around 1840. The native witnesses usually spoke in Hawaiian. In most instances their testimonies were translated into English and transcribed as the proceedings occurred. The witnesses stated how they had learned of the boundaries of the subject lands,

generally from their own kūpuna and other elder residents; they described the landscape by the nature of the terrain, the presence of resources, land use practices, and features which were of significance to the native residents of the land.

Unfortunately, the later commissioner who considered the application from the owner of Kāneʻohe failed to make kamaʻāina testimonies a part of the record. As a result, the records from Kāneʻohe are presented in the form of surveys, and notes from surveyors. The following records were recorded as a part of the commission proceedings for the ahupuaʻa of Kāneʻohe, including selected ʻili of the Crown Lands. Only line 30 of the Kāneʻohe boundary descriptions below reference Kāwaʻewaʻe.

Kaneohe Ahupuaa

Koolaupoko District, Island of Oahu

Boundary Commission, Oahu Volume 3:26-28

No. 100

In the matter of the Boundaries
of the Ahupuaa of Kaneohe, in
the District of Koolaupoko, Oahu.

Before William Foster, Commissioner
of Boundaries for the First Judicial
Circuit, Hawaiian Islands.

This matter came on for hearing before William Foster, Commissioner
of Boundaries for the First Judicial Circuit of the Hawaiian Islands,
at the Police Court Room in Honolulu, Island of Oahu, on Thursday,
the Twenty Sixth day of May, A.D., 1892, at Two o'clock P.M.

Petition of Nannie R. Rice, by her Attorney-in-fact W.F. Allen, was
filed on May 12, 1892, representing that she is the owner of the Ahupuaa
of Kaneohe, in the District of Koolaupoko, Island of Oahu; the same

having been awarded by name to H. Kalama, by L.C.A. 4452, that the boundaries of said Ahupuaa have never been settled; that the adjoining lands and owners, so far as petitioner knows, are as follows; on the East, the Ahupuaa of Kailua, belonging to this petitioner; on the South, various Ilis belonging to the Crown and the Hawaiian Government; On the West, the Ahupuaa of Heeia, belonging to the Estate of Bernice P. Bishop. The matter was accordingly set for hearing on May 26, 1892, at the time and place above set forth.

Present: W.F. Allen, for Petitioner, and F.M. Hatch, his Attorney.
Curtis P. Iaukea, for Commissioners of Crown Lands.

Return is made of service of notice of hearing on C.N. Spencer, Minister of the Interior, who fails to appear. Petitioner files Affidavit of Publication of Notice of this hearing in the Hawaiian Gazette on May 17th and 24th, 1892; and produces a Map of Kaneohe, made by W.R. Lawrence in July, 1888, and Notes of Survey of same.

M.D. Monsarrat, sworn, says: The Map and Notes of Survey, now here, were made by W.R. Lawrence, who was a Surveyor. They were based on an old Government Survey, but Lawrence went on the land. I have examined the survey and map, and they give the boundaries of Kaneohe correctly. I have marked a clerical error in the survey. On the East the boundary is the land of Kailua. Then it goes to the Crown Ilis of Kaneohe, settled by Certificate of R.F. Bickerton, Boundary Commissioner, of May 1, 1884 (Certificate exhibited but not filed). The Northern boundary goes across bay of Kaneohe to Mokapu and the ocean.

No. 100

Certificate of Boundaries.

Be It Remembered that on this Twenty Sixth day of May, A.D. 1892, at

Honolulu, Oahu, Hawaiian Islands, on petition of Nannie R. Rice, by her Attorney-in-fact W.F. Allen, for settlement of the Boundaries of the Ahupuaa of Kaneohe, in the District of Koolaupoko, Island of Oahu; the same having been awarded by name to H. Kalama by L.C.A. 4452; I have taken the testimony of M.D. Monsarrat as to said Boundaries, and have inspected a Map and Notes of Survey of said land, made by W.R. Lawrence and produced before me by said petitioner.

At said hearing Curtis P. Laukea, for the Commissioners of Crown Lands, [Oahu, Vol. 3:26] alleged to be adjoining owners, was present; C.N. Spencer, Minister of the Interior, representing the Hawaiian Government, an alleged adjoining owner, was served with notice of said hearing, but failed to appear.

Wherefore, I do hereby certify that the Boundaries of said Ahupuaa of Kaneohe, in the District of Koolaupoko, Island of Oahu, are as follows, to wit.

Beginning at a point on the bridge over small stream situated on the road between Honolulu and Kaneohe, and on the boundary line of Kaulekolu:

1. Thence S. 41°50' W. true, 8140 feet to the peak Lanihuli.
2. Thence along ridge of Pali between Kaneohe and Nuuanu, following its sinuosities thereof, to a point on said ridge, being N.E. corner of Kalihi, bearing N. 51° 25' W. true, 770 feet.
3. Thence along ridge of Pali between Kaneohe and Kalihi, following its sinuosities to a point, being Southerly corner of Kuou, bearing N. 29° 45' W. true, 4295 feet.
4. Thence along ridge of Pali, following its sinuosities, to a point, being Southerly corner of the Crown Land Keaahala, bearing N. 22° 0' W. true,

- 6370 feet.
5. Thence N. $9^{\circ} 45'$ E. true, 3470 feet along Keaahala.
 6. Thence N. $56^{\circ} 05'$ E. true, 5440 feet along Keaala [Keaahala] to North easterly corner of same.
 7. Thence N. $56^{\circ} 05'$ E. true, 2220 feet along Kanohuluiwi to a stone near West side of Government Road.
 8. Thence N. $50^{\circ} 0'$ W. true, 76 feet along Kanohuluiwi.
 9. Thence N. $44^{\circ} 50'$ E. true 2215 feet along Kanohuluiwi.
 10. Thence N. $85^{\circ} 10'$ E. true, 1420 feet along Lilipuna to the Hawn. Govt. Survey Trig. Station on Puu Pahu.
 11. Thence N. $7^{\circ} 20'$ E. true, 1340 feet along Kalokohanahou.
 12. Thence N. $5^{\circ} 25'$ W. true, 415 feet along Kalokohanahou.
 13. Thence N. $60^{\circ} 0'$ E. true, 625 feet along Kalokohanahou.
 14. Thence N. $47^{\circ} 40'$ E. true, 8400 feet across the Bay of Kaneohe to its South westerly corner of the land called Mokapu, situated at the North westerly end of the Peninsula of Mokapu.
 15. Thence N. $63^{\circ} 15'$ E. true, 7410 feet along Mokapu.
 16. Thence N. $16^{\circ} 20'$ W. true, 1500 feet along Mokapu to the seashore at high water mark.
 17. Thence along the seashore at high water mark to a point below the crater of Mokapu, bearing N. $82^{\circ} 20'$ E. true, 8720 feet.
 18. Thence along seashore at high water mark to a point near the crater of Mokapu, bearing s. $78^{\circ} 50'$ E. true, 2245 feet.
 19. Thence along seashore at high water mark to a point near the crater of Mokapu bearing S. $11^{\circ} 10'$ E. true, 1255 feet.
 20. Thence along seashore at high water mark to a point in Ulupau, bearing S. $36^{\circ} 0'$ W. true, 4175 feet.
 21. Thence along seashore at high water mark to a point in Kaluapuhi Waho, bearing S. $34^{\circ} 0'$ W. true, 4030 feet. [Oahu, Vol. 3:27]
 22. Thence along seashore at high water mark to a point in Aikapuli, bearing S. $9^{\circ} 40'$ W. true, 4775 feet.

23. Thence along seashore at high water mark to a point in Aikahi
700 feet Northeast of Aipalena's house, being Northeasterly corner of
Kailua, bearing N. 84° 25' W. true, 1320 feet.
24. Thence S. 57° 0' W. true, 3680 feet along Aikahi and Oneawa.
25. Thence S. 72° 39' W. true, 2060 feet along Aikahi to a point of ridge.
26. Thence along the ridge, following its sinuosities, to the Northeast
corner of Mahinui, L.C.A. 6400, bearing S. 47° 50' W. 3640 feet.
27. Thence along the ridge, following its sinuosities, to the Southwesterly
corner of Mahinui, bearing S. 59° 30' W. true, 4215 feet.
28. Thence along ridge following its sinuosities, along the Southeasterly
boundary of Keana to the Southerly corner thereof, bearing S. 62° 20' W.
true, 1090 feet.
29. Thence along ridge following the Southeasterly boundary of the lands
Kaluapuhi, Pakui and Hopenui, to the Hawn. Govt. Survey Trig. Station
No. 2, bearing S. 2° 0' E. true, 1980 feet.
30. Thence along ridge, following the Easterly boundary of Kawaewae,
Kalokoai &c. through all the sinuosities of said ridge, to the Northeasterly
corner of Waikalua Waho, Crown Land, bearing S. 26° 25' W. true, 2705
feet.
31. Thence along said ridge, following its sinuosities, along the Easterly
boundary of Waikalua Waho, to a point bearing S. 12° 25' W. true, 1400 feet.
32. Thence S. 69° 0' W. true, 625 feet along Waikalua Waho.
33. Thence N. 57° 25' W. true, 1650 feet along Waikalua Waho.
34. Thence S. 39° 10' W. true, 1380 feet along Waikalua Loko,
to the bridge over stream on Government Road, being the point of
beginning.

Given under my hand, at Honolulu, Oahu, Hawaiian Islands, this
Twenty Sixth day of May, in the year Eighteen Hundred and Ninety Two.

William Foster,

Commissioner of Boundaries for the First Judicial
Circuit of the Hawaiian Islands.

Costs: Attendance, 1 Day	10.00
Service of Notices 2, Certificate 2, Stamp 1	5.00
Description in Certificate, 9 folios @ 50¢	4.50
Record: 9 folios @ 50¢ 4.50, 6 folios @ 25¢ 1.50	6.00
Paid May 31, 1892	\$25.50

Certificate for Interior Dept. 12 folios @ 15¢ filed June 2/92	\$3.00
Paid Jan. 31/93 [Oahu, Vol. 3:28]	

Volume 2 (pages 63-80) of the O'ahu Boundary Commission proceedings include descriptions for several of the Crown Land 'ili of Kāne'ōhe. These cover the 'ili of Kaluapuhi, Halekou, Waikalua, Ke'a'ahala, Kanohohuluiwi and the island of Moku Manu. No reference to Kāwa'ewa'e is found in these records.

5. Mid 1800s to 1920s

a. Sugar

Sugarcane was present in the Hawaiian Islands prior to European contact, but the height of its cultivation did not begin until the 1860s. During this time period, Parker Sugar Co. and Kaneohe Sugar Plantation were the two predominant sugar plantation in operation in Kāne'ōhe. The Parker Sugar Co. cultivated 75 acres of land in Kāne'ōhe with an estimated yield of 120 tons, but their lack of a mill and scarce employees made them less successful than the Kaneohe Sugar Plantation (Devaney et al. 1982).

Kaneohe Sugar Plantation remained operational from 1865 to 1885. Unlike Parker Sugar Co., Kaneohe Sugar Plantation constructed a mill and brought equipment in from Liverpool to maximize their yield. McAllister notes that the Kalaoa heiau which once stood in Waikalua, Kāne'ōhe had its stones removed in the construction of this sugar mill (1933: 178). The plantation cultivated 500 acres of its 7,000 acres in 1880 and had an estimated yield of 500 tons (Devaney et al. 1982). Bowser states that approximately 100 men were employed and

there were 70 yoke of oxen, in addition to 50 mules and horses (1880: 407). In 1884, the plantation utilized 50 acres of their 500 acres of land for planting, but were able to yield 572 tons (*The Planters' Monthly* 1884). The Kaneohe Sugar Plantation remained operational until 1885.

Sugarcane cultivation was not as successful in Kāneʻohe as other parts of the island due to the land being “too uneven in the irregular valleys for the problems of the systematic watering of the cane as it is generally practiced in these Islands” (Pope 1911: 542). The peak of sugarcane cultivation in Kāneʻohe was in 1880 and the years surrounding it, but the last plantation of the Kāneʻohe Bay region in the ahupuaʻa of Heʻeia closed in 1902-03 due to the unprofitable nature of the business (Devaney et al. 1982).

b. Rice

With the increase in agriculture on the Islands, there needed to also be an increase in workers to cultivate the fields. Oriental workers, mostly Chinese, were brought to the Islands in the 1800s for this purpose. The influx of Oriental immigrant workers brought about the need to increase rice cultivation to the commercial crop status to satisfy demand. The rice industry in Hawaiʻi was profitable from 1880 until its decline in the early 1920s and its influence was felt in the Kāneʻohe Bay region. The tracts of land once used in the cultivation of taro were modified and increased to make way for rice cultivation in Kāneʻohe. According to Devaney et al., “vast networks of irrigation ditches were constructed, and the windward valleys of Oahu, near the sea and extending into *mauka* regions along favorable waterways, were used for rice growing” (1982: 49).

Rice acreage in 1892 for the Kāneʻohe Bay region was as follows: Waikane, 200 acres; Kahaluʻu and Kaʻalaea, 300 acres; Heʻeia and Kāneʻohe, 200 acres (Devaney et al. 1982). The shift to rice production in Kāneʻohe was not as successful as farmers and businesses hoped, as the industry steadily declined over a ten year period. Devaney et al. details the various reasons behind the decline of the rice industry in Hawaiʻi:

The annexation of Hawaii by the United States in 1898 resulted in restrictions on the number of Chinese laborers arriving from the Far East. In addition, the

increase of rice production in California destroyed one of Hawaii's major export markets. Rice birds were also a major pest and, in the Kaneohe area, Pratt (1965: 71) recalled the Chinese planters shooting them in the fields. The rice borer insect, appearing around 1927, struck a final devastating blow to the local rice industry (Coulter and Chun 1937: 72) (Devaney et al. 1982: 52-53).

The only remnant of the rice industry in Kāne'ohe by 1963 were abandoned shacks in Waiahole Valley and the remaining pondfields and terraces (Miyagi 1963).

c. Ranching

The presence of livestock was a feature of the Kāne'ohe Bay region from the time of settlement with the early Polynesians; these animals included domesticated pigs, dogs and jungle fowls. The number of introduced animal species increased after European contact, which brought about more livestock, including cattle. Thrum notes that George W. Rowan headed a cattle ranch in He'eia, while George J. Campbell owned a sheep and stock ranch in Kāne'ohe (1905). The livestock began to alter the landscape of Kāne'ohe as early as the mid-1860s, where the plains at the foot of the Nu'uauu Pali were described as "a rich land a while ago but now there are not many plants there because animals are permitted there" (Sterling and Summers 1978: 207).

Further, as the following map shows, most of the Kāne'ohe area and the large Ko'olaupoko lands were designated as "grazing lands" which allowed for animal grazing throughout the areas now utilized by Hawaiian Memorial Cemetery. The grazing lands are denoted on the map by the yellow outline.

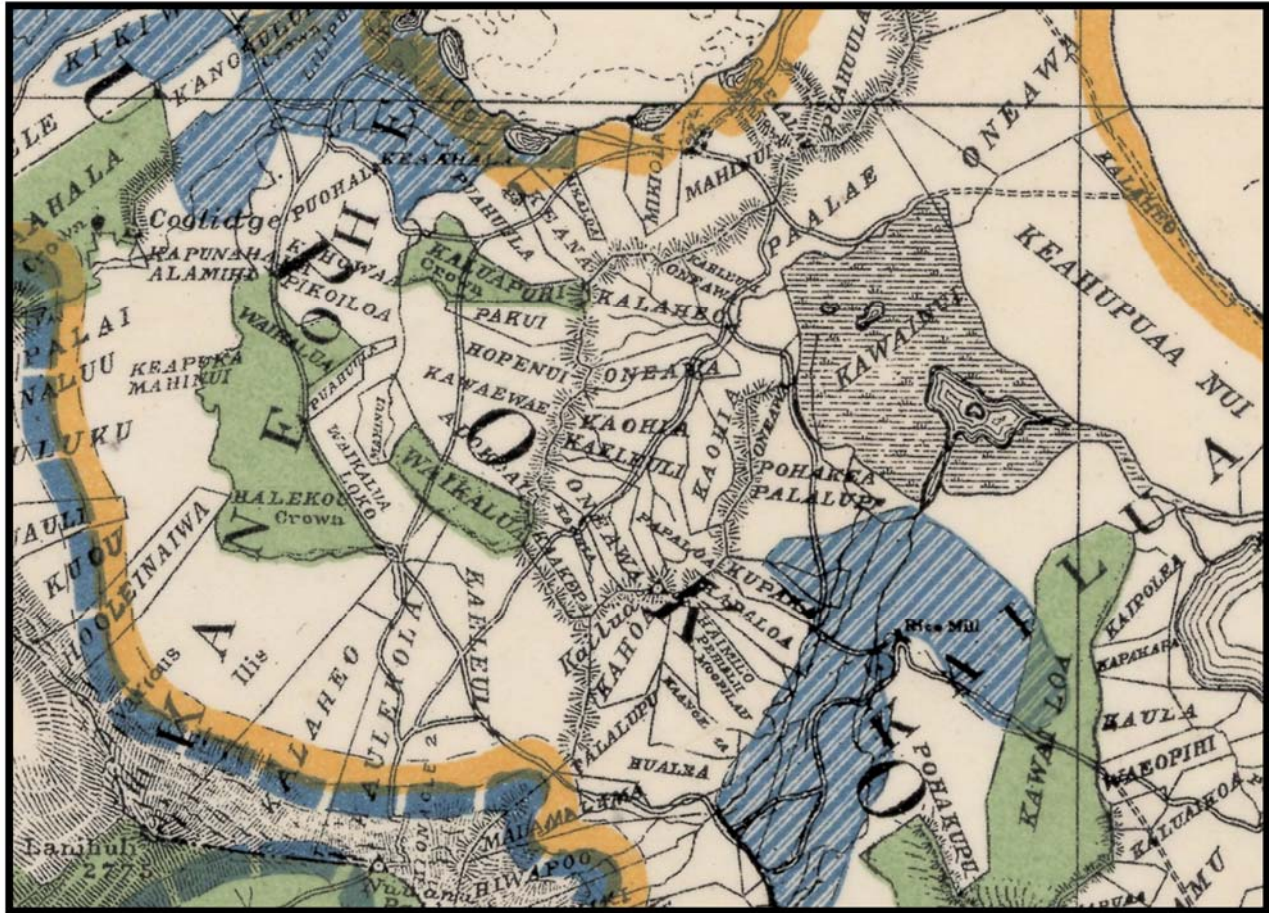


Figure 4. Portion of Wall (1902) showing Kāneʻohe and Kailua.

The yellow outline denotes boundaries of grazing lands. Project area lies in the ʻili of Hopenui, Kāwaʻewaʻe, and Alokoai (spelled as Kalokoai in other resources).

The Kāneʻohe Ranch lands were originally a part of the 20,000 acres belonging to Queen Kalama, the Queen Consort of Kamehameha III and later Queen Dowager of the Kingdom of Hawaiʻi. This land passed to Judge C. C. Harris upon her death, and his daughter, Nannie R. Rice subsequently inherited the land from him (Devaney et al. 1982). J.P. Mendonca leased 15,000 acres from Mrs. Rice in 1894 for cattle raising; the beginning of the ranch was marked by the import of angus cattle by J. I. Dowsett. James B. Castle bought stock in the ranch in 1907 and his son, Harold K. Castle, then purchased the property from Mrs. Rice in 1917. The portion of the ranch in the Kāneʻohe Bay region was then confined to the southern section (Devaney et al. 1982). At its peak, the Kāneʻohe Ranch included 2,000 head of cattle and 12,000 acres extending from the ocean in Kailua to the Pali (Henke 1929).

Existing Resources

The construction of features for the Kāne’ohe Ranch Company were detrimental to important religious sites for Native Hawaiians. Pu’umakani Heiau, once located on the ridge facing the Nu’uanu Pali, was dismantled and its stones were used in the construction of a cattle corral (McAllister 1933: 181). In addition, Kāwa’ewa’e Heiau, located within the petition area, was degraded by the cattle when “the structure was used as a cattle pen for many years [and] any traces of heiau features [were] obliterated, and it is not known where the opening to the heiau was situated” (McAllister 1933: 179).

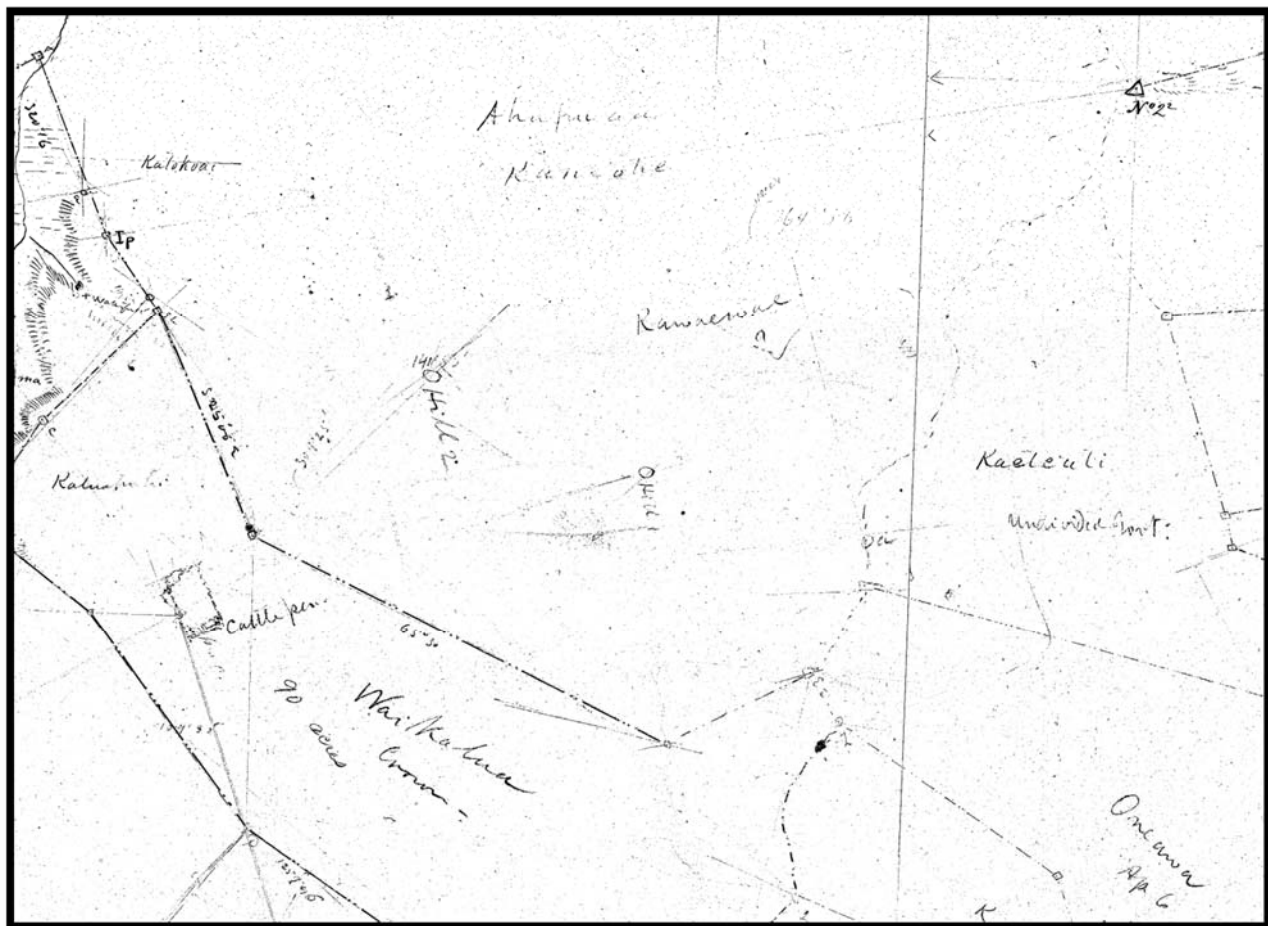


Figure 5. Portion of Registered Map 587 (Lyons, CJ n.d.)

This map illustrates the ‘ili of Kāwa’ewa’e and a large cattle pen immediately outside the area, further evidencing the extensive use of the petition area by cattle for grazing.

6. 1890s to Present

a. Pineapple

The introduction of the pineapple occurred in the early 1800s, but this crop did not begin cultivation at commercial levels until the 1890s and early 1900s. Kāneʻohe, with its rich soils and ideal climate, greatly contributed to the pineapple industry and this crop became the leading agricultural industry in the area from approximately 1910 to 1925 (Harper 1972). Kaneohe Ranch Company and Heʻeia Agriculture Co., Ltd. agreed to lease to Libby, McNeill & Libby 1,000 acres of land in Heʻeia, Kāneʻohe, and Kailua in 1912 for a term of 17 years (Devaney et al. 1982). Pineapple cultivation on Windward Oʻahu reached 2,500 acres at its peak, stretching from Kāneʻohe to Kahaluʻu; much of the acreage was contained within the Kāneʻohe Bay region (Harper 1972).

According to Devaney et al., the pineapple industry was directly responsible for the degradation and destruction of many historical ancient Hawaiian sites:

At least five ancient Hawaiian sites were damaged or destroyed during the pineapple era in the Kaneohe Bay area. In Kaneohe, the Kukuiokane Heiau at Luluku, inland at the foot of a ridge about the banana fields, considered the largest and most important in the region, was destroyed by Libby, McNeill & Libby operations. According to the old Hawaiians of the district, the destruction of this *heiau* caused a disease to attack their pineapples, with the ultimate result that the undertaking was a failure (McAllister 1933: 177, site 340). John Bell reported that he saw the famous *holua* slide in Kaneohe destroyed “when an attempt was made to plant pineapples in this section” (ibid.: 181, site 355). In Heeia, the Kaulauki Heiau was mostly destroyed by the pineapple growers in their attempt to cultivate the region (ibid.: 173, site 328). Even the site of the Libby, McNeill & Libby cannery was considered to have been at the location of the Haluakaia moana Heiau, and the eventual failure of the cannery was credited to the destruction of this temple (ibid.: 170, site 320). Finally, at Hakipuu, the lower terrace of the Puakea Heiau was planted in pineapple (ibid.: 170, site 315) (1982: 62-63).

The pineapple industry of Kāneʻohe could not sustain cultivation as efficiently as other areas around Oʻahu, such as Kalihi, as well as the other Hawaiian Islands. The cannery officially closed in 1923, and the land dedicated to pineapple cultivation grew out, and some were used to graze cattle while others returned to rice cultivation (Kelly 1976; Dorrance 1998).

b. Dairy

Following the conclusion of World War II, Kāneʻohe became a major residential center. Kaneohe Ranch converted operations to focusing on leasing land once farming and ranching became unprofitable. The construction of the Wilson Tunnel and expansion of the Pali Highway in the 1950s and 1960s made Kāneʻohe easily accessible from Honolulu, which led to a developmental boom on the windward side of Oʻahu (Hammatt 2008). The Kaneohe Ranch Company leased their vast acreage to over 5,000 single family residential lots in Kailua and Kāneʻohe; many of the leaseholds were sold to the lessees (Hammatt 2008).

With the decline in the beef cattle ranching, a new industry was able to move into the Kāneʻohe Bay region. The dairy district of Honolulu was forced to relocate, which led to Kailua-Kāneʻohe becoming an important dairy district of Oʻahu in the 1950s (Durand Jr. 1959). According to Durand Jr., dairy farming was a Caucasian dominated field and “among the names of island dairymen, illustrating the Portuguese-Spanish-Mainland importance...are...Brazil, Carlos, Campos, Costa, Ferreria, Foster, Freitas, Knowles, Medeiros, Moniz, Ornellas, Rapoza, Santos, Toledo, Vause and White” (1959: 235). Opened in the 1950s, the Souza Brothers Dairy was a short-lived dairy located near the project area (Figure 6). The dairy industry quickly declined due to high prices of land in Honolulu and the urbanization of Kailua and Kāneʻohe, and the landowners realized that developing land for housing was more profitable than farming (Durand Jr. 1959: 244-245).

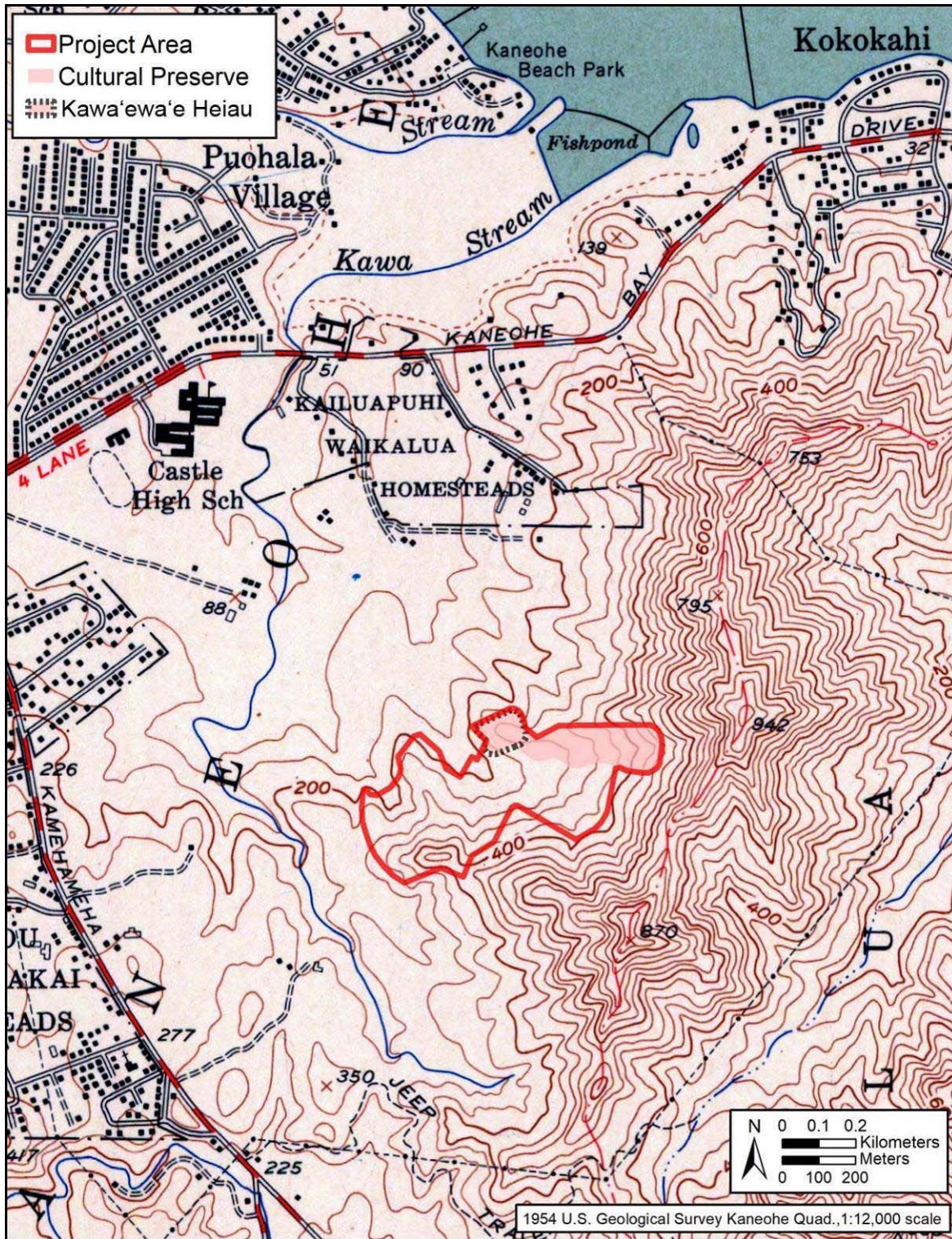


Figure 6. Portion of a 1954 Kāne‘ohe USGS topographic quadrangle map showing the petition area.

Notice a road and grouping of structures to the northwest of the petition area, just south of Castle High School, marking the Souza Brothers Dairy.

B. Historic Sites

The petition area is a true wahi pana. Many of the sites have been destroyed or degraded by grazing activities, agricultural use, the growth of invasive fauna, the development of the Pīkoiloa tract residential development, and the building of Pōhai Nani senior living center.

The following section provides the previous archaeological study information for Kāwa'ewa'e Heiau and its adjacent hōlua slide. For archaeological assessments of all historic sites documented during Honua Consulting's pedestrian survey, see the Archaeological Inventory Survey.

1. Kāwa'ewa'e Heiau

The most prominent historic site located within the petition area is Kāwa'ewa'e Heiau. "Kāwa'ewa'e" can be translated as referring to a "kind of stone or coral, as used in polishing canoes, or in rubbing off pig bristles" (Pukui and Elbert 1986). Kāwa'ewa'e might also be an emphasis on the word Kāwa'e, meaning to treat someone poorly/beratingly. Additionally, Kāwa'ewa'e could also be a word for a type of cordage as that which would hold a victim. Kāwa'ewa'e was a luakini heiau, which were temples dedicated to human sacrifices and prayers by the ruling chiefs.² This heiau has been the subject of multiple archaeological studies and the following descriptions of the heiau are provided below from these various publications.

Thrum's The Hawaiian Annual: The Reference Book of Hawaii (1916)

Some disappointment was experienced on locating the heiau of Kawa'ewa'e on a hill of same name, in Kaneohe, famed in traditions as built in the time of Olopana by his brother Kahikiula, and credited as being the scene of the demi-god Kamapuaa's victory over Oahu's king. There was little about it to identify it as a temple of such fame. We found a walled structure that measured 110 by 260 feet, with walls from four to eight feet in height according to the lay of the

² A full description of luakini heiau, including their purpose and dedication processes, is detailed in Appendix A.

land. Crowning the hill as it did, it took its contour, with a levelled-off portion at the seaward end for usual temple purposes, showing a slight trace of pavement. Much of the heiau was in a dense jungle of shrub growth, still, what examination it permitted revealed but little to distinguish it from an old battle enclosure, or cattle pen, except that it had heavy walls and no gateway.

McAllister's Archaeology of Oahu (1933)

Site 354. Kawaewae heiau, Kaneohe side of the ridge which divides the district and Kailua.

This is one of the five heiaus said by John Bell to have been erected by Olopana. Ahukini, Pahukini, Holomakani, and Puumakani are the other four. It is on the top of a small knoll and consists of one large inclosure 120 by 253 feet with a small terrace on the north side which follows the contours of the land. As the structure was used as a cattle pen for many years any traces of heiau features have been obliterated, and it is not known where the opening to the heiau was situated. The walls are massive, averaging about 5 feet in width and from 4 feet to 7 feet in height according to the contours of the land. The inside corners of the wall are rounded; the outside corners appear more angular.

Thrum [1906: 46] notes that this heiau was "built by Olopana about the opening of the 12th century." It is mentioned as one of the heiaus constructed by the menehunes. Lonoaohi is said to have officiated as high priest.

This is the heiau to which Olopana had Kamapuaa brought for sacrifice. Through treachery Kamapuaa is said to have killed Olopana and escaped.

McAllister drew a map of Kāwa'ewa'e Heiau (Figure 7). The site map is described in detail:

Kawaewae heiau, Kaneohe, Site 354: a, ground plan; b, perspective plan: 1, line of stones for length of 14 feet, indicating wall, possibly the original opening or an old cattle entrance; 2, the last 20 feet on east end of south wall has appearance of a double wall, the smaller, outer additional wall rising in an incline to height of regular wall, together the walls are 10 feet wide; 3. best-

preserved portion of wall, outer side rising 7 feet high from an embankment of rocks which form a 14-foot arc, here wall is 6 feet wide, 5 feet high inside; 4. large inclosure approximately 120 by 253 feet, east 170 feet form the top of a knoll, the remaining 83 feet on a slope to west; 5. wall here resembles wall 3, rising 5 feet high from an embankment of rocks which forms a 7-foot arc, wall here is 5 feet wide, 3 feet high inside; 6. walls on the slope 3 to 4 feet in height inside, a few feet higher outside, average width 5 feet, in bad state of preservation as more easily disturbed; 7. wall 170 feet long between inclosure and terrace, 4 feet wide, 4 feet high inside, 6 feet high outside, with step 2 feet high and 3 to 4 feet wide running length of terrace; 8. small open terrace 51 feet wide following contours of the land, which has indications of having been stone-faced for several feet down the natural slope. Roman numerals indicate cross sections.

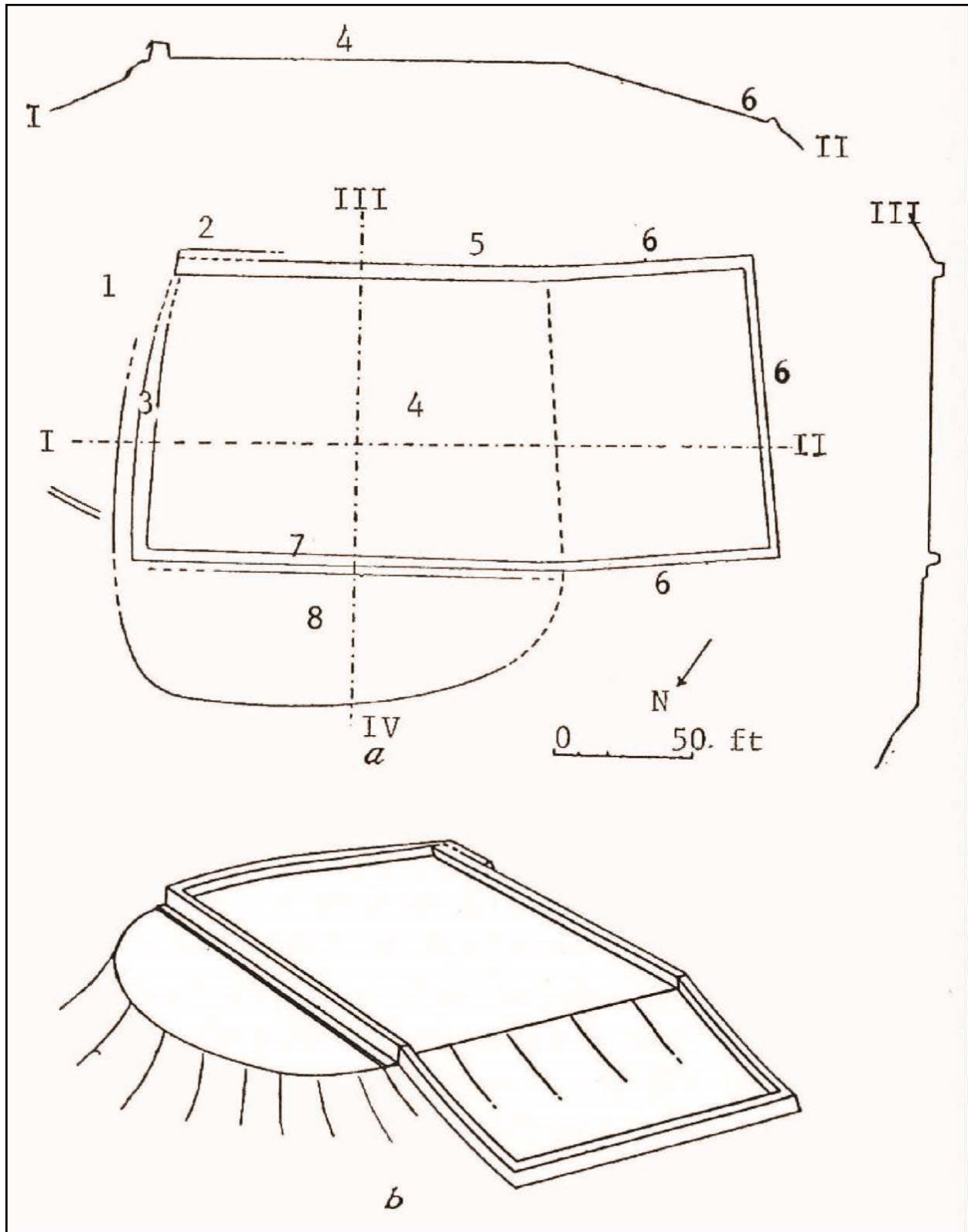


Figure 7. McAllister's map of Kāwa'ewa'e Heiau (SIHP # -0354) (McAllister 1933: 180)

Landgraf's Legendary Places of Ko'olau Poko (1994)

The heiau of Kāwa'ewa'e is found on the ridge dividing Kāne'ohe and Kailua. 'Olopana ordered the building of five heiau: Kāwa'ewa'e, Ahukini, Pahukini, Holomakani, and Pu'umakani. Kāwa'ewa'e was built by 'Olopana's brother, Kahiki'ula, in the twelfth century. 'Olopana plotted to sacrifice Kamapua'a, the pig demigod, at Kāwa'ewa'e, but instead Kamapua'a killed 'Olopana. The high priest of Kāwa'ewa'e was Lonoaohi.

The walled enclosure measures one hundred and twenty feet by two hundred and fifty-three feet. A small terrace was found on the north side. The walls were four to seven feet high and five feet wide. At one time the heiau was used as a cattle pen.

Hammatt's Cultural Impact Assessment for the Hawaiian Memorial Park Expansion Area (2008)

Hammatt corresponded with Mr. Charlie Ogata, a long-time caretaker of Kāwa'ewa'e Heiau. In 1992, he mapped, diagramed and created a model replica of Kāwa'ewa'e Heiau (Figures 8 and 9). His model depicts his re-creation of how the heiau might have looked and functioned in the time of the ancient Hawaiians.

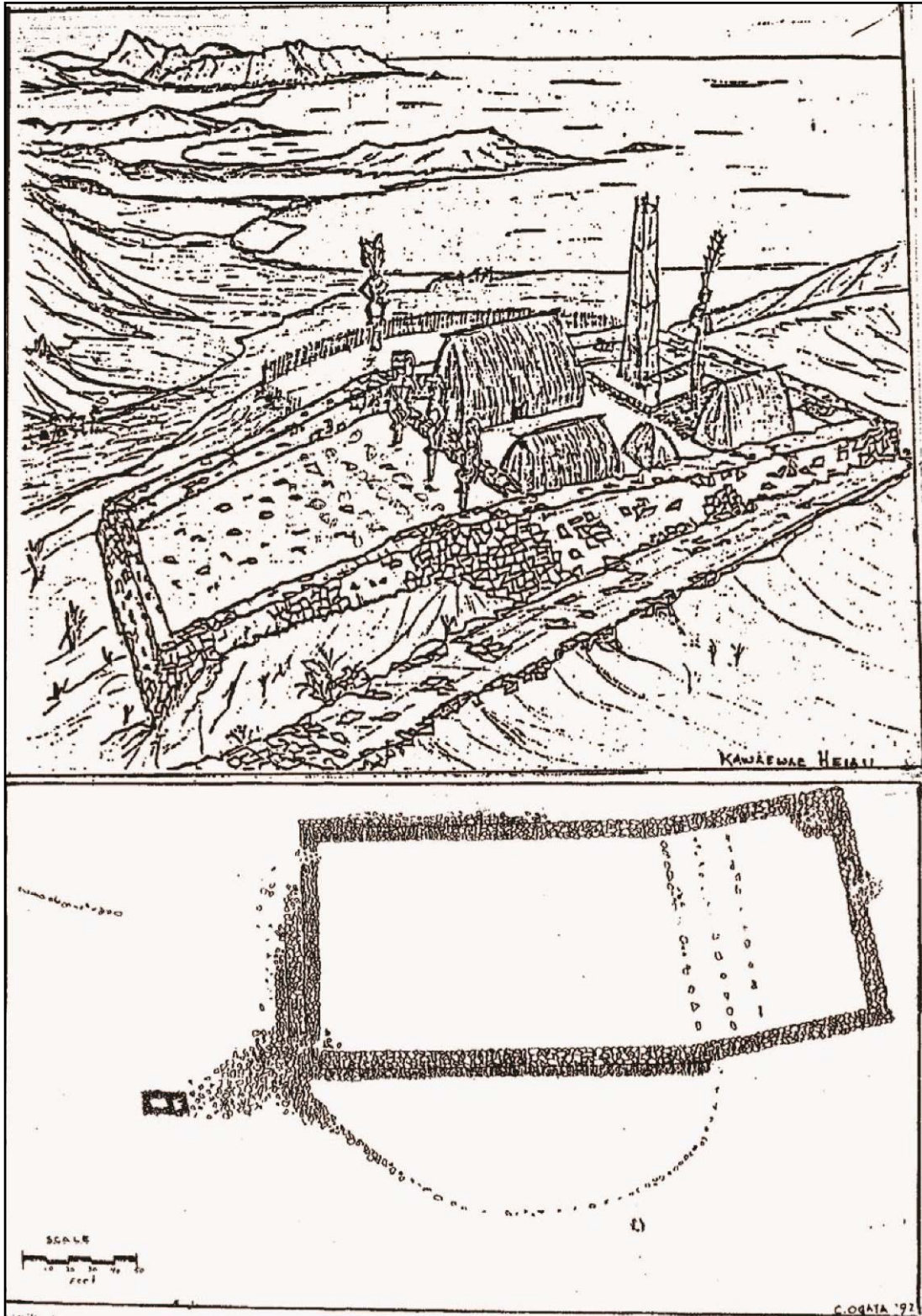


Figure 8. Sketches of Kāwa'ewa'e Heiau drawn by Mr. Charlie Ogata (1992) (Hammatt 2008: 66)



Figure 9. Model replica of Kāwa'ewa'e Heiau created by Mr. Charlie Ogata; view to east (Hammatt 2008: 65)

2. Hōlua Slide

In addition to Kāwa'ewa'e Heiau, there is said to have been a hōlua slide adjacent to the heiau, which is detailed in the following passage. Unfortunately, this hōlua slide was destroyed, as detailed in the previous section on Kāne'ohe's pineapple industry; the location of this slide has not been discovered.

McAllister's Archaeology of Oahu (1933)

Site 355. Small round hill, the name of which is not remembered, near the mountain side of Kawa'ewa'e heiau (Site 354). Said by John Bell to have been the location of a *holua* slide. This he saw destroyed when an attempt was made to plant pineapples in this section. Without doubt this is the site of the slide described by Bates (pp. 106-107) in 1853:

Before reaching the mission station at Kaneohe, the road leads through a narrow but fertile ravine, tenanted by a few natives. In leaving the ravine, a low round hill, to the right of the path, is rather conspicuous from a long, narrow depression or channel on its side. It was an indication that one of the favorite games of the old Hawaiians had been played there. This game was called *holua*, and was one of their favorite games of chance. Both chiefs and common people freely mingled in it. No particular spot monopolized it...The smooth sward of any suitable declivity was made to answer, in some degree, the advantages of ice and snow. A trench was dug from the top of the hill to the bottom, and carried out some distance over the adjoining plain. This was made quite smooth, and spread over with grass to aid in the velocity of the descending sled. It is said that the sliders would frequently get carried nearly a mile along the trench. This amusement was attended with great hazard of life, and great skill and courage were required properly to fit a man for such an enterprise. Many of these slopes were on an angle of forty-five degrees; and woe to the man who rolled from his sled, or whose sled got out of the trench! Death was the penalty, or the unlucky slider was maimed for life. If the players escaped unhurt, many of them lost their all in betting.

This same site was seen by Briggs (p. 38) in 1881: "Dewight pointed out to me a long narrow depression on some of the hills to be seen from our path, where old Hawaiians used to play one of their favorite games of chance."

C. Natural Resources

1. Flora

The vegetation of HMP is a diverse mixture of endemic, indigenous, Polynesian-introduced, and alien species. 109 distinct species were discovered within the petition area in the Botanical Resources Assessment; 91 are alien, seven are Polynesian-introductions, eight are indigenous, and three are endemic (LeGrande 2018). Of the 109 plant species of the petition area, 19 were culturally significant to the Native Hawaiians and played a role in their daily lives, while the remaining 90 species were irrelevant to the practices of the Native Hawaiians; it is important to note that the 90 species not discussed for the purposes of this report are alien and/or invasive.

a. Endemic Species

The three endemic species of the petition area are the koa tree (*Acacia koa*), 'ōhi'a lehua (*Metrosideros polymorpha*), and 'ākia trees/shrubs (*Wikstroemia oahuensis* var. *oahuensis*).

i. Koa

Koa primarily grow in altitudes between 1,500 and 6,000 feet (460 and 1830 meters) but can also grow at lower altitudes nearer to sea level. When growing singly, this endemic species can grow to heights of fifty feet, while individuals within a forest of koa can grow to sixty feet and may have diameters as great as ten feet (Krauss 1993). Koa wood closely resembles mahogany in coloring and when polished, is brownish red with wavy lines of grain visible. Native Hawaiians utilized koa primarily for its wood and bark, most notably in the construction of canoes and surfboards. The canoe hulls, seats, masts, and paddles were all fashioned from koa wood due to its immense size and strength (Abbott 1992; Hiroa 1957; Krauss 1993). Hawaiian surfboards were generally in two classes: alaia, which were shorter and thinner, and olo, which were long, thick and cigar-shaped. Alaia surfboards were primarily made of koa wood, while olo surfboards were made of wiliwili (*Erythrina sandwicensis*); there have been reports of some olo boards being constructed of koa when wiliwili of sufficient diameter were difficult to locate (Abbott 1992).

Koa was also used in the production of spears, though kauila (*Colubrina oppositifolia*) wood was more commonly utilized because of its strength and density (Abbott 1992). Native Hawaiians did not make eating receptacles out of koa wood because of its resin, which imparted a bitter taste to food, such as poi. Healers used the bark of koa along with other plant species to create a drink that “cleaned the blood,” which was a term used to designate the cure of a variety of illnesses. In addition to this blood cleanser, crushed koa bark and noni (*Morinda citrifolia*) leaves were mixed and applied to compound fractures to prevent infection (Krauss 1993). Lastly, koa was also used as the pole of kāhili, which are standards that symbolize royalty, and the koa pole could be plain or adorned with pieces of human or animal bone, turtle shell, or whale tooth (Abbott 1992).

ii. ‘Ōhi‘a Lehua

The second endemic species found within the petition area is the extremely variable ‘ōhi‘a lehua. This native plant ranges in height from tall trees to low shrubs depending on the environment and produces a variety of flower colors from dark or light red to pink, yellow, and white (Krauss 1993; McDonald 1981). The ‘ōhi‘a lehua is one of the most common native plants found throughout the Islands due to its variability; this resilient species can often be found growing on lava fields.

The red lehua blossom from ‘ōhi‘a lehua is the official flower of Hawai‘i Island and mo‘olelo states that this flower is sacred to Pele, goddess of the volcanoes. According to popular legend, the origin of ‘ōhi‘a lehua stems from Pele and her infamous jealousy and wrath. Pele met a warrior named ‘Ōhi‘a and became immediately infatuated with him, but he loved another woman, Lehua. Pele’s jealousy and fury was so great that she transformed ‘Ōhi‘a into a tree, leaving Lehua overwhelmed with grief. The gods took pity on her and decided to transform her into a flower on the ‘Ōhi‘a tree so that the two lovers would be forever joined; this led to the popular lore that plucking the lehua blossom from the tree will cause rain to fall, representing the tears of the separated lovers. The ‘ōhi‘a lehua tree is also the kino lau of many gods and goddesses, most notably Kū, the god of war, and Laka, the goddess of hula (Krauss 1993).

The hard and sturdy wood of the ‘ōhi‘a lehua tree was used in a multitude of fashions. ‘Ōhi‘a lehua wood was often used in the framework of ancient Hawaiian homes, including the ridgepoles, posts, rafters and thatching poles (Hiroa 1957; Abbott 1992). Similarly, the wood was used almost exclusively to create heiau, oracle towers and houses within the courts of heiau. This hardwood also comprised the gunwhales of many canoes when the preferred wood, ‘ahakea (*Bohea sandwicensis*), was unavailable (Krauss 1993); the decking, spreaders, and seats of canoes were also commonly made of ‘ōhi‘a lehua (Abbott 1992). Other uses for this hardwood include fashioning it into kapa beaters, poi boards, musical instruments, kāla‘au (dancing sticks), spears, pāhoa (daggers), lā‘au (clubs), and kāhili standards (Krauss 1993; Abbott 1992; Hiroa 1957). In the construction of luakini heiau, haku ‘ōhi‘a (temple images) were made from ‘ōhi‘a lehua wood, and strict protocol were followed to select, cut and carve them for this purpose (Hiroa 1957; Krauss 1993).

Ancient Hawaiians also utilized the vibrant ‘ōhi‘a lehua flowers for a variety of purposes. Lei lehua are frequently made with the ‘ōhi‘a lehua flowers by tying clusters of leaves and flowers to a central cord (McDonald 1981). Lei made with red ‘ōhi‘a lehua were favored in offerings to gods (Krauss 1993). Additionally, the flowers were often mixed with the inner bark of hau (*Hibiscus tiliaceus*) and water and given to women with painful labor to help reduce the pain. The new leaves of ‘ōhi‘a lehua were also pounded with other leaf varieties and flowers to treat ‘ea (thrush) in children (Krauss 2001). The ancient Hawaiians were well-known for their ability to utilize every part of plant; the ‘ōhi‘a lehua was no exception.

iii. ‘Ākia

‘Ākia, the last endemic species of the petition area, are small trees or shrubs that grow in elevations of about 4,000 feet (1220 meters) (McDonald 1981). ‘Ākia flowers are tiny and yellow-green without petals, while the fruits are ovoid drupes with colors ranging from yellow to orange to red (Krauss 1993). Native Hawaiians occasionally used the bark of this endemic species as cordage, while the bark and roots were used in fishing practices as a poison. Fishermen crushed the bark and roots and scattered them in tide pools and the small fish in the pool would float to the surface to be easily picked up; the toxins of ‘ākia did not have long lasting effects and these toxins did not transfer to humans through consumption

(Abbott 1992). In addition to these practices, Native Hawaiians also crafted lei with the beautiful multicolored 'ākia berries and strung them like beads to create lei 'ākia ha'aha'a (McDonald 1981).

b. Indigenous Species

The indigenous plants within the petition area include 'ēkaha (*Asplenium nidus*), palapalai (*Microlepia strigosa*), moa (*Psilotum nudum*), pala'ā (*Sphenomeris chinensis*), hala (*Pandanus tectorius*), pōpolo (*Solanum americanum*), 'uhaloa (*Waltheria indica*), and kā'e'e (*Mucuna gigantea*).

i. 'Ēkaha

Four indigenous varieties of fern were discovered in the petition area, the first of which is 'ēkaha, commonly referred to as the bird's nest fern. This fern species can grow to heights of four feet or more and are commonly found in dry and wet forests from 130 to 2,500 feet (40 to 760 meters). The fronds of 'ēkaha are visually similar to banana leaves, making them easily distinguishable from other native fern varieties. The fronds were often woven into lau hala mats to provide a color contrast, and lei made from the fronds decorated hālau hula (meeting houses for hula instruction) as an offering (Palmer 2003; McDonald 1981). Medicinal uses for 'ēkaha included mixing the leaves with other plants to treat 'ea and pā'ao'ao (an illness that causes physical weakening), and making an ointment from the leaves to treat ulcers and body sores (Kaaiakamanu and Akina 2003).

ii. Palapalai

The native palapalai is a fern found primarily in dry to moderately wet habitats from sea level to 5,500 feet (1,700 meters) on all the major Hawaiian Islands. This fern typically grows to heights of three to four feet with large, hairy fronds one to three feet long (McDonald 1981; Palmer 2003). Palapalai is sacred to Laka, the goddess of hula, and is frequently used to decorate the altar in hālau hula (Palmer 2003). Palapalai was most commonly used by ancient Hawaiians in the construction of lei. Lei palapalai are created using the hili or hilo (braiding/plaiting) method, and this lei type was and continues to be favored by hula

dancers. Fronds are also occasionally added to lei pua (flower lei). This beautiful lacy fern is a common feature in many gardens today.

iii. Moa

The third indigenous fern located within the petition area is the moa, which is present on all of the Hawaiian Islands from sea level to 3,937 feet (1,200 meters) (Palmer 2003). This species was not vastly utilized in Hawaiian culture as compared to other native ferns and fern allies. Moa is occasionally used in the construction of temporary lei (Krauss 1993). In addition, children would use moa in the game moa nahele (cock fighting): two children would interlock two branches of moa and slowly pull them apart until one broke; the child holding the unbroken moa would be declared the winner and announced his victory by crowing like a rooster (moa) (Krauss 1993). Most moa can typically be found in gardens and flowerpots today, and it can be widely distributed due to its propagation through spores (Palmer 2003).

iv. Pala'ā

The pala'ā is one of most abundant native ferns in the Hawaiians Islands. Pala'ā typically grow in wet forests, grasslands, along streams, and in shrublands at elevations between 130 and 4,300 feet (40 and 1,310 meters) (Palmer 2003). According to legend, Hi'iaka, sister of the volcano goddess Pele, wore a skirt of pala'ā around her hips to protect herself from the mo'o (dragons) of Puna; when Hi'iaka was able to defeat and ward off these mo'o, the ancient Hawaiians came to regard pala'ā as an emblem to dispel any and all female ailments, a belief that continues for some Native Hawaiians today (McDonald 1981). Pala'ā is also sacred to the Hawaiian hula goddess Laka, and the fern is used to decorate altars of hālau hula (Palmer 2003). Pala'ā is most prominently utilized in making temporary and perishable lei. The hili or hilo (braiding/plaiting) method of lei making applies to the braiding of a single material, which is how lei pala'ā are typically constructed (McDonald 1981); pala'ā are also interwoven with other endemic plants to construct lei pua (Abbott 1992). In addition to lei making, brown dye for kapa was extracted from the fronds and rhizomes of pala'ā, and ancient Hawaiians would soak the cloth in a container with pala'ā for some time to produce a dark coloring (Palmer 2003; Hiroa 1957). In regard to medicinal treatments, pala'ā was

used to dispel various female disorders, in reference to the aforementioned legend of Hi'iaka and the mo'o of Puna (McDonald 1981).

v. Hala

The hala tree was extremely important to ancient Hawaiians and all parts of the tree, from its roots to its leaves, were utilized in some way. Hala trees typically grow at lower altitudes and are characterized by their aerial prop roots (ule hala) that emerge from both the branches and the trunk. Male and female flowers grow on separate trees, and its fruits consist of fifty or more drupes that are commonly referred to as "keys" (Krauss 1993). According to legend, lei hala are regarded as both a sign of bad luck and a sign of good fortune, depending on the time of the year. When worn during the makahiki festival, the wearer's faults, transgressions and troubles of the past year were said to have passed away and the new year could then be approached with only good luck. Alternatively, the lei hala can be considered a sign of bad fortune at the start of a new venture, so it is unlucky to present lei hala to someone embarking on a significant undertaking (McDonald 1981). Lei hala were also favored by Pele and hala was a body-form of one of Pele's sisters, Hi'iaka-mākole-wāwāhi-wa'a (Red, swollen eyed Hi'iaka who smashes canoes). When fallen hala fruit was found on the shore, fishermen and canoe sailors would not take their canoes out to sea, as the omen warned of pending danger.

The leaves of hala trees are referred to as lau hala (lau translates to leaf), and they have a variety of uses in Hawaiian culture. Strips of lau hala are used as the center core to which flowers, leaves and fruits are attached in the wili (winding), kui (stringing), and humu-papa (sew-to-a-foundation) methods of lei making (Krauss 1993; McDonald 1981). (The fruit of the hala are also used in lei making, and ancient Hawaiians would string the "keys" lengthwise through the center (McDonald 1981).) Lau hala serve a dual-purpose in canoe making; ancient Hawaiians burned the leaves to form a charcoal that was then added to the black paint mixture applied to the canoe's hull, and lau hala is the primary material used to create the canoe's sails (Abbott 1992). The plaiting craft (ulana) extensively utilized lau hala to make a variety of products, including mats, pillows, baskets, fans, and even kites; today, lau hala is generally used to make objects smaller than floor mats due to the inaccessibility

of a multitude of hala trees (Hiroa 1957; Abbott 1992). Another important use of lau hala was as thatch, where the leaves formed an inner lining for the thatch which was applied over the lining of the outside of houses (Hiroa 1957).

The fruits and flowers of hala trees were also used for a variety of reasons. The fragrant male flowers were utilized as a method for perfuming finished kapa, and the tips of mature hala fruits were used to create semicircle and dot designs on kapa pieces (Krauss 1993; Abbott 1992). Dried hala “keys” were cleaned and trimmed to create brushes for stenciling and free-hand lining, as the hard outer end of the decayed fruit served as a convenient handle and the inner end had the optimal exposed fibers required for painting (Krauss 1993; Hiroa 1957). Hala fruits were also consumed by ancient Hawaiians during times of drought when other food sources were unavailable, so hala was not a popular dietary source. In addition, the flowers of the hala tree were used for medicinal purposes as a mild laxative, and they were included in recipes that relived chest pains (Abbott 1992). The multitude of purposes served by the hala tree in Hawaiian culture are only briefly listed here and the impact of this indigenous tree to the Hawaiian people and their way of life is immeasurable.

vi. Pōpolo

Pōpolo, commonly referred to as the glossy nightshade, grow in a variety of habitats and can reach heights of three feet (one meter). This plant produces white flowers and purplish-black berries that were used for multiple purposes in ancient Hawaiian culture. According to legend, pōpolo is a visible embodiment of the god Kāne and the following prayer was recited when obtaining it: “I come to you, Kāne Pōpolo for a leaf of your body, as medicine for...” (Abbott 1992: 99). Pōpolo is regarded as one of the most important, if not *the* most important, Hawaiian medicinal plants. The leaves were juiced to apply to sore tendons, muscles, and joints as these areas were sunned, and the juiced leaves were often mixed with the berries to treat disorders of the respiratory tract, skin eruptions, and cuts and wounds (when mixed with salt) (Abbott 1992). The young leaves were eaten during meals to prevent bloating and compresses were made of the mashed leaves to apply to inflamed eyes. In addition to medicinal purposes, the berries and leaves of pōpolo were consumed, the latter during times of food scarcity. The purplish-black coloring of the berries were also occasionally used in

creating dye for kapa (Krauss 1993).

vii. 'Uhaloa

'Uhaloa is an indigenous plant found within the petition area without a wide range of cultural uses. It is a body form of Kamapua'a and is primarily a medicinal plant. The leaves, stems and roots were pounded, strained and used as a gargle for sore throats, which is a practice that continues today (Abbott 1992). 'Uhaloa was also combined with other plants to create a tonic for young and older children and occasionally adults. Canoe builders would also occasionally add the sap of 'uhaloa to a concoction used as a paint for the hulls (Krauss 1993). This native weed remains abundant throughout the Hawaiian Islands and is still treasured as a natural and safe tonic for bodily ailments today.

viii. Kā'e'e

The last indigenous species located in the petition area is kā'e'e, more commonly known as the sea bean. This native vine produces yellow-green flowers and is found on the major Hawaiian Islands. Kā'e'e was and is primarily used in the construction of permanent lei, as seeds and beans are non-perishable plant products. Kā'e'e did not need to be polished before stringing, which made it a favored seed in the early practice of lei hua (seed lei) construction (McDonald 1981). Outside of lei making, kā'e'e seeds were occasionally used as a purgative due to its toxicity (Neal 1965). Other cultures outside of Hawai'i appear to have used this species more frequently, while ancient Hawaiians focused on its applicability to lei making and, occasionally, medicine.

c. Polynesian-Introduced Species

All seven of the Polynesian-introduced species identified within the petition area are extremely important to Hawaiian culture, even more so than many endemic and indigenous species. These seven species include kalo (*Colocasia esculenta*), tī (*Cordyline fruticosa*), kukui (*Aleurites moluccana*), niu or coconut (*Cocos nucifera*), mai'a or banana (*Musa sp.*), noni (*Morinda citrifolia*), and hau (*Hibiscus tiliaceus*). These seven plants were instrumental in practically all aspects of daily Hawaiian life, from diet and medicine to religion and recreation. These Polynesian-introduced species have very widespread distribution on the Hawaiian

Islands and beyond and are not threatened or in danger of extinction.

i. Kalo

Of the hundreds of plants used by the ancient Hawaiians, none were as important for dietary and cultural reasons as kalo, commonly known as taro. This crop consists of a cluster of heart-shaped leaves (*lau kalo*) and grows from an underground corm (*kalo*) to heights of one foot or more. The kalo flesh ranges in colors from white, yellow, lilac-purple, and pink to red (Krauss 1993). Kalo could be planted in both dry and wet conditions and the latter varieties are situated in irrigated terraces termed *lo'i*. Kalo cultivated in dry conditions are commonly planted on upland slopes and forest clearings in mulch formed of rotting leaves (Hiroa 1957). Research indicates that this staple crop was introduced by Polynesians in no more than a dozen varieties, but expanded to well over three hundred varieties in precontact days (Krauss 1993).

The origin of kalo has an interesting lore surrounding it; the following fragmented account is taken from David Malo's *Hawaiian Antiquities*:

The first-born son of Wakea was of premature birth (*keiki alualu*) and was given the name of Haloa-naka. The little thing died, however, and its body was buried in the ground at one end of the house. After a while, from the child's body, shot up a *taro* plant, the leaf of which was named *lau-kapa-lili*, quivering leaf; but the stem was given the name Haloa.

After that, another child was born to them whom they called Haloa, from the stalk of the taro. He is the progenitor of all the people of the earth (Malo 1951: 244).

Mary Kawena Pukui further explained the Haloa tradition:

The first Haloa, born to Wakea and Ho'ohoku-ka-lani, became a taro plant. His younger brother, also named Haloa, became the ancestor of the people. In this way, taro was the elder brother and men the younger – both being children of the same parents.

Because our chiefs were of the senior line, they were referred to in respect and affection as “*kalo kanu ‘o ka ‘aina*” (the taro grown in the homeland) by the junior branches of the family (quoted in Handy and Handy 1972: 80).

According to these accounts, *kalo* is considered the first-born and therefore superior to man, the second-born. The care and reverence paid to *kalo* by the ancient Hawaiians to the present certainly attest to this mindset. In addition to this origin story, *kalo* is also the *kino lau* of Kāne, the primordial god of procreative life. For this reason, the work of planting and cultivating *kalo* was the responsibility of men because of a *kapu* (taboo) to women placed upon this sacred plant of Kāne (Abbott 1992). Additionally, the term *‘ohana* (family) is derived from the *‘ōha* of *kalo*, which is the the offspring attached to the underground corm (Krauss 1993).

The primary use of *kalo* to ancient Hawaiians was as a crop and all parts of this plant were used, most notably the corm. The corm was steamed in an *imu* (underground oven) and peeled, then broken into pieces and mashed with a stone pounder (*pōhaku ku‘i ‘ai*) on a hollowed out board termed *papa ku‘i ‘ai*; the *kalo* would be pounded until a paste was formed called *pa‘i ‘ai* (Krauss 1993). The *pa‘i ‘ai* would be further mixed with water to make *poi*, the most important starch food source of the ancient Hawaiians; fresh *poi* was usually reserved for babies, while adults preferred the fermented *poi* and its “sour” taste. *Poi* was routinely eaten at every meal, similar to the abundance of rice and bread during meals today. The cooked *kalo* corm was also used in *kūlolo*, a dessert dish mixed with coconut cream or shredded coconut meat in ancient times (Abbott 1992). *Kalo* leaves (*lū‘au*) were consumed as greens and steamed in an *imu* with fish and pork to make *laulau* (Krauss 1993). Other parts of the *kalo* plant like the *hā* (leaf stalk) and spadix of the flowers were cooked and eaten as vegetables (Krauss 1993).

Apart from the dietary benefits, *kalo* was also used for variety of reasons in ancient Hawaiian culture. When creating food bowls, the process for eliminating the bitterness from the wood would often involve *kalo*; an uneaten portion of the corm was placed in the bowl and left to ferment for a week, then replaced with another corm repeatedly. Fermented *poi* was used to hasten the sweetening of the wood, and the bowl would need to pass the “*poi test*,” where

the poi that stuck to the sides of the bowl no longer tasted bitter, to be considered usable (Hiroa 1957). Fishermen would often use kalo as bait on bait sticks called lā'au melomelo (Abbott 1992). The young kalo leaves also provided medicinal value, as the leaves were mixed with kukui-nut kernels and various fronds to be eaten as a tonic for a patient recovering from a recent serious illness. In terms of religion, kalo would be a common offering in rituals to call upon a god's aid and laid upon the kuahu (shrine) (Krauss 1993). Additionally, the kalo leaves would be used in the deification of a king after his death; the body was wrapped in leaves of banana, paper mulberry and kalo, a process termed kapa lau (garment of leaves) (Hiroa 1957). The extreme importance of the kalo to the ancient Hawaiians is only briefly detailed above, as the true extent of its reach and significance is difficult to fully explain.

ii. Tī

The tī plant is primarily used for its leaves, but all parts of this plant have been essential to Hawaiian culture and daily life. Tī predominantly grows in open forest at lower elevations but has been cultivated near buildings and on the banks of taro patches; the stems are thrust into the ground where desired for propagation. Tī plants typically grow to heights of three to ten or more feet and have oblong leaves that can grow up to four feet long and four to six inches wide (Krauss 1993). Prior to Western contact, only green-leafed tī grew on the Hawaiians Islands, and this variety is the one that is continued to be most commonly used in Hawaiian customs (Abbott 1992). Ancient Hawaiians believed that tī plants warded against evil spirits and had the power to heal, leading to their planting around houses and the leaves' use in rituals of cleansing and healing. During a woman's period of menstruation, they were confined to the hale pe'a compounds in isolation; the women were said to wear lei of tī to protect them from uncleanness and would carry these lei with them when travelling to summon the protection of the volcano goddess Pele (McDonald 1981). Today, the tī leaf continues to be regarded as a sacred symbol of the gods and an emblem of protection against evil spirits.

Only the leaves of the tī plant are used in lei making practices, as the flowers and fruits are not optimal for stringing or winding into lei. Tī leaves are used in lei lā'ī, which are worn

open-ended in a horseshoe fashion around the neck, in the haku (arrange-in-a-braid) method as the center plait, and the wili method as the center core to which flowers and fruits are attached (McDonald 1981; Krauss 1993). Aside from being used in the lei, tī leaves also comprise pū'olo lā'i, which are used to store and carry perishable lei because the cool leaves prevent the fresh flowers from drying and withering; pū'olo lā'i continues to be the best receptacle in which to store lei today. Lei of tī were worn by hula dancers, and the leaves of tī were essential in decorating the altar of Laka in the hālau hula (McDonald 1981).

Tī leaves were a vital part of ancient Hawaiian cooking techniques. Tī leaves were the equivalent of plastic wrap, waxed paper, cloth wrappers and aluminum foil in the kitchen, as they served to keep the food clean, segregate different foods, serve as wrappers, and provide moisture for easy steaming in both pūlehu and imu cooking. Before cooking, some foods were wrapped in tī leaves using the lāwalu (principally for fish) and laulau (for a combination of foods) techniques to protect the food from burning or drying out. After cooking was completed, the Hawaiians would eat the food with their fingers directly from tī leaves, which also functioned as plates. Ancient Hawaiians did not typically consume the tī plant, except during times of famine when other crops had failed (Abbott 1992). The root of the tī plant contains fructose, which would caramelize when steamed in an imu; both children and adults could consume sections of the cooked root as a sweet, but this was not an everyday occurrence (Krauss 1993). Fisherman also used tī leaves in hukilau nets to lead fish into the center of the net, and in bait traps and lures (Abbott 1992; Hiroa 1957). The tī leaf and root served a purpose in all aspects of the Hawaiian diet, from direct consumption and catching prey, to the preparation and service of the food.

Tī was also an important medicinal plant to the ancient Hawaiians. To reduce a fever, all or part of the body was wrapped in tī leaves to promote sweating (Abbott 1992). Similarly, the leaves were dipped in cold water and laid over foreheads to cool fevers and relieve pain of headaches (Krauss 1993). In addition, hot packs for physical therapy purposes were created by wrapping warm rocks in tī leaves and applied to injured areas (Abbott 1992).

In addition to these essential contributions into Hawaiian culture and life, tī also contributed to apparel and recreation. Rain capes were fashioned from tī leaves to afford protection from

moisture to those who spent extended periods of time in the forests (Abbott 1992). Additionally, tī leaves provided suitable material for comfortable sandals that were occasionally worn over rough coral or lava flows, as ancient Hawaiians typically went barefoot (Krauss 1993). In regard to recreation and sport, the tī plant had many purposes and functions. The root of tī can provide a dark colored dye, which was used to stain surfboards and hulls of canoes (Hiroa 1957; Krauss 1993). More directly, the leaf-head cluster of the tī plant comprised the simplest form of sleds, where individuals sat on the leaves and held the stalk to steer; tī-leaf sliding was called ho'ohē'e kī. In games of darts (pāhi'uhi'u), a tī leaf was used as a target, and the winner was the individual whose dart landed nearest to the tī-leaf goal (Krauss 1993). Lastly, pū lā'i (tī-leaf whistles) were crafted by rolling a tī leaf around itself at one end and then rolling the other end to form a funnel shape; this whistle was not considered a musical instrument, but more of a play-thing (Hiroa 1957). From the functions provided in the preceding paragraphs, the impacts of the tī plant is easily visible, and tī can be regarded as one of the most important plant species of the Hawaiian Islands.

iii. Kukui

Kukui or candlenut trees are another Polynesian-introduced species discovered within the petition area and the cultural significance of this species extends beyond their use in seed lei. Kukui is typically found in the lower mountain zone and is often concentrated to the walls and floors of large valleys and in the ravine-like hanging valleys (Krauss 1993). This large, wide-spreading tree has a very quick germination rate of eighty-five percent; the spread of this species was so rapid after its introduction that it can be classified as a weed and competes with other indigenous and endemic plant species (Abbott 1992). The kukui is currently the official tree of the State of Hawai'i and the lei kukui is representative of the island of Moloka'i.

In regard to wearing apparel and accessories of the ancient Hawaiians, kukui played a monumental role. The most popular usage of kukui is in lei kukui, the best-known lei hua (lei made from seeds and nuts), which are the only truly permanent lei made from plant materials. Each nut is sanded down, polished, punctured on the ends, has the inner meat

removed, and then strung on a cord (McDonald 1981; Krauss 1993). The nuts are typically polished with a piece of tapa dipped in kukui-nut oil, and the finest lei kukui continue to consist of hand polished nuts (McDonald 1981). Kukui contributed to the dye used for kapa, as the fruit husk produces grayish/beige dye, the inner bark trunk produces brownish red dye, and the inner bark root produced reddish brown dye (Krauss 1993). Black dye was also produced by roasting kukui nuts and grinding them into a powder, which was then mixed with kukui oil and applied to the kapa until the color penetrated every fiber (Hiroa 1957). The ancient Hawaiians applied a technique of painting kapa that involved a charcoal bag consisting of piece of kapa filled with roasted and ground kukui nuts, and the “bag” was brushed over the surface of kapa to produce a grayish coloring (Krauss 1993). In addition to clothes, kukui nuts were also used in tattoos. The charcoal of the kukui nut and the kukui fruit juice created black pigmentation; the ancient Hawaiians expressed grief by tattooing a black spot or line on the tongue with a bamboo sliver dipped in these kukui concoctions (Abbott 1992; Krauss 1993).

Kukui was an important feature in fishing, sport, and recreation. Fishing lines were soaked in infusions of the inner bark from the kukui tree trunk, which dyed the lines a reddish-brown color that was imperceptible to the target fish. Fishing spears were filled with roasted kukui nut kernels because when ignited, the nuts emitted a light that attracted the fish (Krauss 1993). Fishermen frequently chewed the kernels of kukui and spat it on the surface of the ocean water; the kernel’s oil smoothed the water’s surface and allowed the fishermen to see the bottom (Hiroa 1957). Lastly, bait sticks were rubbed down with kukui-nut oil every time before use and baked kukui nuts were pounded and wrapped in coconut leaves then attached to the stick; fish were attracted the bait sticks and were scooped up in nets (Krauss 1993). The inner bark of the kukui root was one of the key ingredients in the mixture to create stains and paints, and this paint was applied to the hulls of canoes and surfboards, then dry kukui-nut oil was applied to both the canoes and surfboards in the finishing process (Hiroa 1957). The seats or thwarts of canoes were typically made of kukui wood and shaped to fit snugly in the width of the hull. Kukui-nut oil was also used in sledding, as it was poured over the grass tracks and the runners of the sledge were “greased” to facilitate sliding. Lastly, hū (tops) were made from kukui nuts and bamboo slivers, where two holes were drilled in

the nut and the slivers were put through the holes (Krauss 1993).

Kukui was also an important feature of the ancient Hawaiian home, through dishware, medicine, and house furnishings. The oil of the kukui-nut was used as a polish for the outer surfaces of wooden bowls and coconut bowls and the oil worked perfectly to bring out the grain in the wood while also rendering the wood impervious to water (Hiroa 1957). As a medicine, kukui was the most commonly used laxative or purge in higher doses and all parts of the tree were used for this purpose. Kukui leaves served as bandages for deep bruises and swellings where localized heat and sweating were cures (Abbott 1992). Kukui flowers and sap were utilized in the treatment of the children's disease, 'ea; the sap was rubbed onto the affected areas, while flowers were included in the tonic administered to children three times a day (Krauss 1993). Additionally, kukui nuts were mashed and roasted to cure sores and ulcers, while the shell's charcoal was used for sore throats. Lastly, the common name of kukui is the candlenut tree and this name arose from the use of the nuts for lighting. Kukui kernels were skewered on dry coconut leaf midribs for a weak light (kālī kukui) and the kukui-nut oil was pooled into hollowed stones with wicks of kapa or cordage for stronger light (pōho kukui) (Abbott 1992). The kukui tree was successfully integrated into the everyday lives of the ancient Hawaiians.

iv. Niu

Another Polynesian-introduced species in the petition area is the coconut, termed niu by the Native Hawaiians. Niu trees are capable of reaching heights up to 100 feet and their fronds grow up to 18 feet long. Niu trees produce small flowers and its round fruit (a drupe or nut) ripens in nine to ten months; the inner lining of the nut is a white, edible pulp referred to as the "flesh" or "meat" which surrounds a hollow containing sweet water (Krauss 1993). Ancient Hawaiians revered niu as the body of the god Kū, so the planting was men's work and kapu to women, with a few exceptions (Abbott 1992). There are many legends about the origins of niu to the Hawaiians Islands, one of which is provided below from the island of Hawai'i regarding the tricksters 'Aukele-nui-aiku and Kāne-'Āpua:

"It is Aukele-nui-aiku and his brother (Kane-) Apua who bring the first coconut

to Hawaii. The first time Apua and his brother come from Kahiki they do not bring slips of food plants because they expect to find them growing here. Being almost famished, they return to Kahiki after plantings, and appear off Kaula-(u)ka's place in Kahiki with a load of pretended food in the shape of coral rock. Their not landing is laid to the rough surf. Of each plant they are shown they declare that it 'germinates, sprouts, bears leaves and fruits in Hawaii,' and hold up a piece of coral resembling the shape of the plant. The owners of the food plants cast all away as worthless and the voyagers gather them into the canoes and carry them back to plant in Hawaii. The first coconuts in Hawaii are planted at Kahaualea (where stands the heiau of Waha-ula) and at Kalapana in Puna district, Hawaii" (Beckwith 1970: 432).

Another legend credits the arrival of coconuts to Pōka'i, "an early voyaging chief from Kahiki, who brought and planted [in Pōka'i Bay of Wai'anae] the coconut from which has sprung its grove, famed in song" (Sterling and Summers 1978: 70).

The fronds of niu trees were used extensively in many aspects of Hawaiian culture. Niu leaves occasionally comprised the foundation of head lei made using the humu-papa method and floral material was sewn to the leaf (McDonald 1981). The frond could also be treated as a modern-day cheese cloth, as infusions for dye were strained through the leaf to remove debris before the dyeing process commenced. The sheath was also used when straining medicinal concoctions to be drunk by the inflicted. Fisherman beat the water with coconut fronds when using a net to drive fish into the center, where they were then caught by the gills (Krauss 1993). Hawaiians also used the fronds in plaiting simple fans, but they did not typically plait the niu leaves for floor mats or baskets (Abbott 1992). In addition to these daily necessities, Hawaiians also used the fronds for recreation. The game panapana nī'au was played by children that bent the midribs of the leaflets into a bow, then released it so that it would spring away. Additionally, children would play kīolaola, which was a juggling game played with balls made from the plaited coconut leaves; the children would toss as many as five of these balls at a time (Krauss 1993). A final example of the use of the coconut frond is in the creation of nī'au kani (Jew's harp), an instrument made from the leaflet midrib,

which was stiff and hard when dry (Hiroa 1957).

Although niu fronds proved very useful, the most important part of the niu is the gourd. All parts of the coconut were utilized by ancient Hawaiians in daily activities and the coconut continues to be essential today. The outer part of the shell, termed the husk, is separated from the gourd to create a fibrous material (coir) that Hawaiians used in a variety of ways, particularly for cordage; coir is the twisted fibers that are weaker than sennit, which is the braided rope made from the cordage (Krauss 1993; Abbott 1992). The gourd itself is very strong and sturdy and has a variety of uses. Lei can be created using coconut shells that are cut into various shapes, polished, drilled, and strung together; pendants may also be created from these shells (McDonald 1981). Instruments for hula were crafted from these shells as well, including 'ulī'ulī (gourd rattles), pūniu (coconut knee drums), and 'ūlili (rattles consisting of three gourds pierced by a stick); pahu hula is another drum made for hula, and it was constructed using the base of a coconut trunk rather than the gourd (Abbott 1992; Krauss 1993). Food was typically consumed with the fingers except sweet potato poi, which has a liquid consistency and required scoops made from the niu shell for consumption (Hiroa 1957). Cups made for drinking 'awa and medicine were also crafted from niu shells and more complex cups were reserved for kahuna (priest) use (Abbott 1992). The niu shells also served as the lids for line containers and comprised bait mortars in ancient fishing practices (Hiroa 1957). Lastly, the gourd was used recreationally in kilu, which was a game similar to quoits and played only by ali'i (Krauss 1993).

The examples of niu use in Hawaiian culture presented above are important and significant, but the use of the inner portions of the coconut are the most well-known. The ancient Hawaiians were able to extract oil from the inner meat of the coconut. Niu oil was primarily mixed with the sap of laua'e ferns, and this mixture was then applied to kapa to perfume it. Niu oil was also important in fishing, as it was applied to bait sticks which attracted fish into the fisherman's nets (Krauss 1993). When compared to islands in the south Pacific, Hawaiians did not utilize the coconut for dietary purposes to the same extent and its use for food was minor compared to plants like taro and sweet potato. The liquid contained within the nut is termed wai niu (coconut water), and it was drunk by ancient Hawaiians on long

journeys where fresh water was unavailable; other island nations of Polynesia were documented as drinking wai niu extensively in comparison (Krauss 1993; Hiroa 1957). Hawaiians also prepared coconut cream by grating the inner flesh of the coconut and squeezing it through the fibrous coconut fronds; this cream was and continues to be used to prepare haupia and kūlolo, which are both Hawaiian delicacies (Krauss 1993). The impact of all parts of the niu tree is easily apparent in all aspects of Hawaiian culture.

v. *Mai'a*

Mai'a or banana trees are another Polynesian-introduced species, primarily used for its leaves and fruits. Mai'a were considered kino lau of the god Kanaloa and the kapu surrounding the plant expressed three main beliefs of the Hawaiians people, as explained by Isabella Aiona Abbott:

“First, the gods Kāne and Kanaloa were believed to have originally planted all *mai'a*, so the fruit was offered in the *heiau* and all other houses of gods; second, under certain conditions, specific varieties such as the *maoli* variety could be substituted for a human sacrifice to Kanaloa or to Kāne; and third, according to *mo'olelo* (traditional stories), the sky principle Wakea set aside three kinds of *mai'a* – the varieties *pōpō'ulu*, *iholena*, and *kaualau* – to his opposite, the earth principle Papa, so these were available for women to eat, while all other varieties were forbidden to them” (Abbott 1992: 37).

Mai'a were also used as offerings to luakini and māpele heiau, and they were fed to manō kanaka (deified sharks who were believed to be of human origin) that were regarded as spirits of ancestors. Additionally, mai'a is the subject of a popular 'ōlelo no'ēau used in response to an impatient person: “A'ohe hua o ka mai'a i ka la ho'okahi” (the banana does not fruit in a day) (Hiroa 1957).

Mai'a leaves are used in a variety of lei making techniques, including haku, wili and humu-papa methods. Mai'a leaves and the stalk skin are typically used as the center cord to which the flowers and fruits are added, and cords made from mai'a stalks are also used to secure the lei. Similar to the tī leaf packages (pū'olo lā'i), mai'a leaves also formed hā mai'a

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that are created to carry perishable lei and are excellent in keeping the flowers, leaves and fruit fresh from drying and withering. Lei made with mai'a decorate hālau hula and are often worn by the dancers (McDonald 1981). Hula dancers also wear skirts made from strips of mai'a fiber, among other native plants (Abbott 1992).

The leaves of this Polynesian-introduced plant were also used in an assortment of other Hawaiian customs. Due to their large size, mai'a leaves were capable of covering the processed bark of wauke, which is used to create kapa; the material was placed between layers of mai'a leaves to separate and soften the fibers so that the material would be easier to mold and handle (Abbott 1992). The leaves are also considered a tougher material than many other plant species, so Hawaiians would fashion sandals out of these leaves when necessary (Krauss 1993). Hawaiians developed a unique technique using mai'a leaves for deification of a king after his death: the king's body was wrapped in banana leaves in a process termed kapa lau (garment of leaves) (Hiroa 1957). In terms of cooking preparations, the mai'a leaves were laid over heated rocks to serve as a modern-day pan for food to be laid upon and layers of food were covered with the leaves after being deposited into the imu. Mai'a leaves played an important role in imu and pūlehu cooking, segregating different foods, serving as wrappers, keeping the food clean, and providing moisture so the food could be steamed without drying out. Finally, mai'a leaves served as thatch on the insides of houses; they were especially useful because it was completely impenetrable from rain for a few months (Abbott 1992).

Ancient Hawaiians also used the fruits and flowers of mai'a for certain activities, but not to the extent of the leaves. Mai'a flower buds and inflorescence provided a useful sap for paint and stains; this stain was typically applied to canoes and surfboards to give them a darker color (Hiroa 1957; Krauss 1993). Mai'a was not considered an essential staple food for the ancient Hawaiians, but it was easily accessible and very sweet, thus providing variety to their bland diet (Krauss 1993). Certain varieties of mai'a were kapu to women and reserved for male ali'i and priests. Mai'a could be eaten raw or cooked depending on the variety and mai'a is the main component of the dishes piepiele and poi mai'a, both of which are still prepared today (Abbott 1992).

vi. Noni

Noni, commonly named the Indian mulberry, is a Polynesian-introduced tree that has naturalized in dry and moist areas from sea level to 1,300 feet (400 meters) (Abbott 1992). Noni produces a large, yellow fruit that matures to several inches long with individual fruitlets to give the fruit a “warty” appearance (Krauss 1993). The primary use of noni to ancient Hawaiians was medicinal. The leaves of this tree were used to wrap rheumatic joint or muscles and deep bruises, the leaves were crushed to be applied to boils and sores, and the leaves were also mixed with crushed koa bark and applied to fractures to prevent infection (Abbott 1992; Krauss 1993). Juice could be extracted from the noni roots to treat skin eruptions. The various stages of the fruit could also be used to heal a variety of illnesses. Immature fruit were mashed and applied as a counterirritant over bone breaks and applied to the head in the event of concussion. Half-ripe fruit were effective as poultices for boils and deep cuts. The fruit was also a common ingredient in formulations for menstrual cramps, poor digestion, high blood pressure, arthritis, sprains, and gastric ulcers (Abbott 1992; Krauss 1993).

In addition to medicinal purposes, noni was also used for diet and dye. The bark of the noni tree was used to create a red dye while root produced a yellow dye. Kapa dyed red from noni root were referred to as pukohukohu (Hiroa 1957). When mixed with unburnt lime, the noni root creates a rose shade that is unique to Hawai‘i (Abbott 1992). There are references to ancient Hawaiians consuming the fruit of noni despite its foul smell in times of famine, but this fruit was not preferred nor very palatable.

vii. Hau

Hau is the final Polynesian-introduced plant species identified within the petition area and is typically found in the lowlands, but can also be found at higher elevations. Hau, similar to kukui trees, are so abundant throughout the Hawaiians Islands that they have reached invasive status. Hau grows in dense thickets that are nearly impenetrable along streams and on damp slopes up to an elevation of 1300 feet (400 meters) (Abbott 1992). Hau is primarily used as cordage and tying material, either with or without the bark depending on the usage. Removing the outer bark leaves smooth ribbons that can be braided and twisted, while

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braiding and twisting with the bark attached allowed for stronger cordage that was used to haul large items, like koa logs for canoes. The hau cordage was used in a variety of ways by the ancient Hawaiians, further explored in the following sections. In addition to cordage, the slimy sap extracted from the inner bark of the hau tree was used as a mild laxative, enema, and dry throat reliever for medicinal purposes.

Hau is utilized in the making of wearing apparel, accessories, house furnishings, and recreation. Wili and haku lei do not require stinging materials as other lei techniques and instead are created with winding materials such as hau; fibers of hau are also commonly used as binding threads in feather and hala lei. Hālau were commonly decorated with hau blossoms and hula dancers occasionally wore skirts comprised of strips of hau bark and tī leaves (McDonald 1981). Another form of clothing comprised of hau were sandals, as the tough fibers of hau bark were optimal for navigating rough surfaces like lava fields and coral beds. Accessories such as baskets were also created from the cords of hau. Hau was also a feature of the household in ancient Hawai'i as they were used to create sheets (Hiroa 1957). In regard to recreation, hau was used in a variety of ways. Flying kites were made with a framework of hau wood that was covered in kapa or hala leaves and the hau wood was perfect for this craft as it was easy to bend and very light. String figures were made by children and adults alike and these figures were created with a single cord of hau bast; this art is similar to the present-day cat's cradle (Krauss 1993). Finally, ancient Hawaiians played a peg and ball game, where the ball was comprised of leaves and secured to the stick with hau cordage; the ball would be tossed into the air by flicking the stick and it was caught on the two points of the peg as it fell, similar to the modern day Japanese kendama toy.

Hau also played a key role in ancient Hawaiian sports and fishing activities. Hau wood comprised the majority of the outriggers added to canoes, both in the booms and floats. Hau wood is ideal for the outrigger because it has the lightness and buoyancy required. According to Abbott, the hau wood used for the booms "had to be straight for most of their length (from the starboard side of the canoe across the hull to the port side), but their ends had to curve symmetrically downward to the waterline where the float would ride. The booms were lashed to the gunwales and to the centermost spreaders, reinforcing the hull" (Abbott 1992:

82). In times of war, a kahuna placed a hau branch upright in the ground and it was regarded as a favorable omen for his side in the war; as long as this hau symbol, termed a mīhau, remained standing it meant victory for that side, while the losing side let their mīhau fall. Many ancient weapons were fashioned from hau, including slings and bows. The sling pouch was plaited strips of hau bast, while the strings of bows were made of two-ply hau bast cordage (Krauss 1993). Fishing practices also required the use of hau. Hau wood's buoyancy allowed it to be particularly useful in holding fishing gear, as they floated well if a canoe was overturned or disturbed (Hiroa 1957). Thick ropes of hau were also fashioned for shark nets and hano mālolo (flying fish bag nets). Lastly, hau wood was used in the construction of three different forms of net floats: cylindrical, D-shaped, and wedge-shaped (Krauss 1993).

d. Invasive Species (Laua'e)

Laua'e (*Phymatosorus grossus*) is an introduced fern species sighted throughout the petition area. There are many who believe that this fern is the laua'e referred to in old Hawaiian mo'olelo, but all evidence about this species suggests that *P. grossus* was introduced to the islands in the early 20th century and has spread rapidly throughout the islands since 1922. The name "laua'e" was originally attached to *Microsorium spectrum*, which is an endemic species that is similar in both frond size and scent to *P. grossus*; the laua'e referred to in Hawaiian lore was most likely referring to *M. spectrum* rather than *P. grossus*, but the name "laua'e" has now been firmly attached to *P. grossus* (Palmer 2003). Laua'e is primarily used in perfuming kapa because of its pleasing aroma and the process involves the heating of the fern fronds and pressing out of the fragrant sap, which is mixed with coconut oil and added to the dyes (Krauss 1993). Laua'e is also commonly included in lei combined with flowers and fruits and the gentle fragrance compliments the more pungent scents of flowers such as hala (McDonald 1981). Despite the confusion and discrepancies of this fern species' history, the laua'e is regarded as culturally significant to Native Hawaiians.

Despite the vast and documented cultural uses of the species identified in the petition area, none of the culturally significant species are of conservation or environmental concern. The following table details the aforementioned and described flora of the petition area (Table 6).

Table 6. Flora of the Petition Area

Scientific Name	Common Name(s)	Endangered?
ENDEMIC		
<i>Acacia koa</i>	Koa	No
<i>Metrosideros polymorpha</i>	‘Ōhi‘a lehua	No
<i>Wikstroemia oahuensis</i> var. <i>oahuensis</i>	‘Ākia	No
INDIGENOUS		
<i>Asplenium nidus</i>	‘Ēkaha; bird’s nest fern	No
<i>Microlepia strigosa</i>	Palapalai; hay-scented fern	No
<i>Mucuna gigantea</i>	Kā‘e‘e; sea bean	No
<i>Pandanus tectorius</i>	Hala; pū hala	No
<i>Psilotum nudum</i>	Moa	No
<i>Solanum americanum</i>	Pōpolo; glossy nightshade	No
<i>Sphenomeris chinensis</i>	Pala‘ā; lace fern	No
<i>Waltheria indica</i>	‘Uhaloa	No
POLYNESIAN-INTRODUCED		
<i>Aleurites moluccana</i>	Kukui; candlenut tree	No
<i>Cocos nucifera</i>	Coconut; niu	No
<i>Colocasia esculenta</i>	Taro; Kalo	No
<i>Cordyline fruticosa</i>	Lau kī; lā‘ī; kī; tī	No
<i>Hibiscus tiliaceus</i>	Hau	No
<i>Morinda citrifolia</i>	Noni; Indian mulberry	No
<i>Musa</i> sp.	Banana; mai‘a	No
INTRODUCED/ALIEN		
<i>Phymatosorus grossus</i>	Laua‘e; introduced maile-scented fern	No

2. Fauna

An avifaunal and mammalian field survey was conducted within the petition area and all species observed and recorded during point counts are not of environmental or cultural concern (David 2017). The only native bird discovered is the Pacific golden-plover or kōlea (*Pluvialis fulva*) in an incidental observation, where this species was transitioning past the existing HMP facilities to the eastern end of the petition area. No other native land birds were discovered because the habitat within the petition area is unsuitable for these birds, including the native pueo (*Asio flammeus sandwichensis*) and ‘amakihi (*Hemignathus flavus*).

Existing Resources

Native waterbirds were also absent from the surveyed area, which was expected due to the lack of suitable wetland habitats; the same conclusion was made about the absence of seabirds, although it is probable that some seabirds may fly above the petition area on occasion. All of the nineteen (19) introduced bird species tallied are not culturally significant in Hawai'i, but those that occurred most commonly throughout the petition area include: the red-vented bulbul (*Pycnonotus cafer*), red-whiskered bulbul (*Pycnonotus jocosus*), and zebra dove (*Geopelia striata*). Mammals discovered during the survey include the Small Indian Mongoose (*Herpestes auro-punctatus*), feral pigs (*Sus scrofa*), and numerous dogs (*Canis familiaris*), all of which are invasive; the surveyors reported that rats (*Rattus* spp.) and mice (*Mus musculus*) undoubtedly reside within the site but were not observed during the study. The survey also states that they used technology to search for the endangered Hawaiian hoary bat or 'ōpe'ape'a (*Lasiurus cinereus semotus*), but none were found (Bruner 2006; David 2017).

The only native avifaunal species discovered within the petition area is the migratory kōlea. The kōlea is a shorebird indigenous to the Hawaiian Islands. This long-distance travelling plover winters on the Main Hawaiian Islands from August through April, then migrates to Siberia and western Alaska to breed from April through early August (Mitchell et al. 2005). In the winter, kōlea resides on a variety of habitats including crop fields, coastal salt marshes, beaches, pastures, and grassy areas on both urban and undeveloped lands, so the petition area may be ideal for the kōlea's habitat needs.

Kōlea, among other birds, play an important role in many myths:

Birds are notably potential gods or spirit beings. In the machinery of romance migratory birds or those which nest in high cliffs are messengers for the high chiefs in the story. Thus plover (kolea), wandering tattler (ulili), tropic bird (koea), turnstone (akekeke, akikeehiale) are sent by the divine chiefs of the story, generally in pairs, to act as scouts or to carry messages from island to island. The plover, accompanied by the tattler, remains in Hawaii or flies on south from August until the following May or June, when it migrates to Alaska for nesting, leaving behind immature birds and cripples (Beckwith 1970: 90).

Existing Resources

The role of kōlea as messengers to the gods and divine chiefs is further outlined in the Kana mo'olelo, where the kōlea and 'ūlili are sent by the Moloka'i chief Kapepe'ekauila to reconnoiter before battle (Beckwith 1970: 464).

Beckwith further explains the cultural importance of kōlea in the myth of Kōlea-moku, “a man of ancient days who was taught the medicinal arts by the gods and was himself deified after death and worshipped in the heiau at Kailua”³ (Beckwith 1970: 119). Beckwith clarifies that Kōlea-moku may be another name for the 'aumākua (family gods) of kōlea birds that are elsewhere referred to as Kumukahi, who “was able to take the form of a man or of a kōlea bird at will” (Beckwith 1970: 120). One mo'olelo details the bird hunter Kumu-hana recklessly killing the kōlea for sport, to which his neighbor, who worships Kumukahi, warns about the sacrilege. Kumu-hana does not heed his neighbor's warning, so Kumu-hana is attacked by a flock of plover, “who enter his house and peck and scratch him to death. The place where he lived is called Ai-a-kōlea to this day” (Beckwith 1970: 137-138).

Kōlea are protected under the Migratory Bird Treaty Act (MBTA), which prohibits the taking, possessing, importing, exporting, transporting, selling, purchasing, bartering or any such offers of parts, nests or eggs of any bird listed under the Act. Although the kōlea occurs within and near the petition area, its extremely large range and population size prevents it from entering Vulnerable status, and the clearing of the petition area and its vast invasive vegetation into lawns will provide more foraging space for the wintering native, migratory bird as opposed to the invasive bird species.

An invertebrate survey was also conducted in the petition area over several months to include both dry and wet conditions; the focus of this survey was to collect data about any endemic and indigenous Hawaiian species rather than common invasive arthropod species (Montgomery 2017). Nine endemic invertebrates were discovered during this survey, one of which is the endangered Blackline Hawaiian Damselfly (*Megalagrion nigrohamatum nigrolineatum*); the eight remaining endemic species are widespread and not federally listed.

³ This heiau referred to by Beckwith is believed to be located in Kailua, Kona on Hawai'i Island rather than the Kailua that lies in the Ko'olapoko District of O'ahu.

No indigenous species were found.

There are approximately 26 species of damselflies in the *Megalagrion* genus endemic to the Hawaiian Islands. The statuses of these damselflies range from species of least concern to vulnerable and critically endangered and one species (*Megalagrion jugorum*) has been classified as extinct (Odonata Specialist Group 1996). Three (3) species present on the island of O‘ahu were added to the list of endangered species in 2012: the oceanic Hawaiian damselfly (*M. oceanicum*), the blackline Hawaiian damselfly (*M. nigrohamatum nigrolineatum*), and the crimson Hawaiian damselfly (*M. leptodemas*) (USFWS 2012). Hawaiian damselflies are relatively small compared to other narrow-winged damselflies and they are weak fliers that hold their wings close to their bodies (Mitchell et al. 2005). The damselfly species in the genus *Megalagrion* reside in a wide range of aquatic habitats like streams, reservoirs, alchialine pools (landlocked brackish ponds located near the shoreline and connected to the ocean by subterranean tunnels), marshes and lowland swamps (Mitchell et al. 2005).

The endemic Blackline Hawaiian Damselfly, or pinao ula, is currently found within the petition area. This endangered species has been noted by surveyors and experts in a storm drain culvert located in the northwest corner of the petition area, but its habitat quality has been reduced by the placement of coconut fronds and tree branches over the water course. Their larvae, termed lohelohe, was used in the consecration of heiau. This damselfly species is often found clinging under stones or hiding in algae masses due to their favor for concealed environments. Surveyors discovered up to eight males during sunny days, while only one to two were present with decreased sunlight. Predation by fish and the rooting activities of the feral pigs present major threats to the survival of this damselfly colony (Montgomery 2017).

The following table summarizes the fauna discovered in the petition area, including bird species, mammals and invertebrates, only one of which is both endemic and endangered (Table 7). The vast majority of the fauna are both introduced and of no conservational or environmental concern.

Table 7. Fauna of the Petition Area

Scientific Name	Common Name(s)	Endangered?
ENDEMIC		
<i>Brachydeutera hebes</i>	Shore Fly	No
<i>Chironomus hawaiiensis</i>	Hawaiian Midge	No
<i>Eudonia</i>	Moss Moth	No
<i>Forcipomyia howarthi</i>	Biting Midge	No
<i>Hyposmocoma</i>	Moth	No
<i>Megalagrion nigrohamatum nigrolineatum</i>	Pinao ula; Blackline Hawaiian Damselfly	Yes
<i>Noctuidae</i>	Miller Moth	No
<i>Nysius terrestris</i>	Seed Bug	No
<i>Trigonotylus hawaiiensis</i>	Leaf Bug	No
INDIGENOUS		
<i>Pluvialis fulva</i>	Kōlea; Pacific Golden-Plover	No; MBTA Protected
INTRODUCED/ALIEN		
Mammals		
<i>Canis familiaris</i>	Dog	No
<i>Herpestes auropunctatus</i>	Small Indian Mongoose	No
<i>Sus scrofa</i>	Pig	No
Birds		
<i>Acridotheres tristis</i>	Common Myna	No
<i>Cardinalis cardinalis</i>	Nothern Cardinal	No
<i>Columba livia</i>	Rock Pigeon	No
<i>Copsychus malabaricus</i>	White-rumped Shama	No
<i>Gallus sp.</i>	Domestic Chicken	No
<i>Garrulax canorus</i>	Chinese Hwamei	No
<i>Geopelia striata</i>	Zebra Dove	No
<i>Haemorhous mexicanus</i>	House Finch	No
<i>Horomis diphone</i>	Japanese Bush-Warbler	No
<i>Leiothrix lutea</i>	Red-billed Leiothrix	No
<i>Lonchura atricapilla</i>	Chestnut Munia	No
<i>Paroaria coronata</i>	Red-crested Cardinal	No
<i>Passer domesticus</i>	House Sparrow	No
<i>Pavo cristatus</i>	Indian Peafowl	
<i>Pycnonotus cafer</i>	Red-vented Bulbul	No
<i>Pycnonotus jocosus</i>	Red-whiskered Bulbul	No
<i>Streptopelia chinensis</i>	Spotted Dove	No
<i>Zosterops japonicus</i>	Japanese White-eye	No
Invertebrates		
<i>Dasyhelea hawaiiensis</i>	Biting Midge	No
<i>Diptera</i>	Flies and Mosquitoes	No

3. Other Environmental Features

a. Rain Names

Akana and Gonzalez in *Hānau Ka Ua: Hawaiian Rain Names* explain the significance of wind and rain in Native Hawaiian culture:

In the mind...of our Hawaiian kūpuna [(ancestors)], every being and every thing in the universe was born. Our kūpuna respected nature because we, as kānaka, are related to all that surrounds us – to plants and creatures, to rocks and sea, to sky and earth, and to natural phenomena, including rain and wind. This worldview is evident in a birth chant for Queen Emma, “Hānau ke ali’i, hānau ka ua me ka makani” (The chiefess was born, the rain and wind, too, were born). Our kūpuna had an intimate relationship with the elements. They were keen observers of their environment, with all of its life-giving and life-taking forces. They had a nuanced understanding of the rains of their home. They knew that one place could have several different rains, and that each rain was distinguishable from another. They knew when a particular rain would fall, its color, duration, intensity, the path it would take, the sound it made on the trees, the scent it carried, and the effect it had on people (Akana and Gonzalez 2015: xv).

To the Native Hawaiians, no two rains are ever the same. Rain can be distinguished based on its intensity, the way it falls, and its duration, among other things. The following are a collection of rains that occur within the Kāne’ohe ahupua’a. Mo’olelo, ‘ōlelo no’eau (traditional sayings), mele, oli, etc., associated with the particular rain name are also provided to give insight into the importance and cultural significance that the different types of rains have to the Native Hawaiian people.

i. ‘Āpuakea Rain

The ‘Āpuakea rain is associated with Hāna, Maui, and with Ko’olaupoko, O’ahu, and is also found in other areas. This rain name is also the name of a place in Kāne’ohe (Akana and Gonzalez 2015: 4).

Rain of Mololani, Kāne‘ohe, O‘ahu

Kila ku‘i i ka ua ‘Āpuakea i Mololani *Majestically the ‘Āpuakea rain reaches up to Mololani*

E hehi ana i ka ‘ōnohi o ke koa *Treading on the leaf buds of the koa trees*

The above selection is from a mele māka‘ika‘i (travel chant) for ‘Emalani Kaleleonālani by her aunt Kama‘iku‘i Young (Nogelmeier 2001: 99).

Auē ku‘u makua kāne ē *Pity for my dear father*

Mai ka ua ‘Āpuakea o Mololani ē *From the ‘Āpuakea rain of Mololani*

Mai ka ua Hōli‘o i ka moana lā *From the Hōli‘o rain over the ocean*

Ke hehi maila i ka ‘ili o ke kai ē *Treading upon the surface of the sea*

This passage is from a kanikau (lament) for Ioseba Nawai (Kamoakeawe 1862; trans. Akana and Gonzalez 2015: 8).

Me ka ua ‘Āpuakea *With the ‘Āpuakea rain*

Ka la‘i a‘o Malulani *The calm of Malulani*

Me kea nu o ke Ko‘olau *And the coolness of the Ko‘olau*

From the song “Kāne‘ohe” by Abbie Kong and Johnny Noble (Wilcox et al. 2003: 110).

He kanikau aloha kēia nou, e B. Mahune *This is an affectionate chant of mourning for you, B. Mahune*

Kū ka ‘uhane, nānā aku ‘o ka ua ‘Āpuakea o Mololani lā *The spirit stands and observes the ‘Āpuakea rain of Mololani*

Ke hehi maila i ka maka o ke kai a luhi *Trampling upon the spray of the sea until weary*

From a kanikau for B. Mahune (Wailea 1862; trans. Akana and Gonzalez 2015: 9).

ii. Kāhikohala Rain

The Kāhikohala rain is associated with Kea‘au, Hawai‘i, and with Kekele, O‘ahu. “Kāhiko hala” means “to adorn the hala trees” (Akana and Gonzalez 2015: 46).

Rain of Kekele, O‘ahu

Ku‘u wahine mai i ka nuku o Nu‘uanu	<i>My darling wife from the Nu‘uanu Gap</i>
Mai ka ua Kāhikohala o Kekele	<i>From the Kāhikohala rain of Kekele</i>

From a kanikau for a woman whose name is rendered “ke Aupuni” in the newspaper (Konaaihele 1862; trans. Akana and Gonzalez 2015: 47).

iii. Kua‘o‘e Rain

The Kua‘o‘e rain is associated with Hawai‘i and O‘ahu and it appears as “Kua-o-e” in an 1862 Hawaiian-language newspaper (Akana and Gonzalez 2015: 125).

Rain of Mololani, Kāne‘ohe, O‘ahu

Ku‘u wahine mai ka ua Kua‘o‘e o Mololani	<i>My beloved wife from the Kua‘o‘e rain of Mololani</i>
Mai ke ko‘a mokumoku o He‘eia	<i>From the broken coral beds of He‘eia</i>
Aloha ia wahi a kāua i hele ai	<i>Fondness for these places where we traveled</i>

From a kanikau for Luakauwahine (Pawai 1862; trans. Akana and Gonzalez 2015: 125).

iv. Mololani Rain

Mololani rain is similar to Lūlehua and it is associated with Ko‘olaupoko, O‘ahu, but is also found at Pana‘ewa, Hawai‘i. Mololani is the name of a wind and of a crater in Kāne‘ohe (Akana and Gonzalez 2015: 177).

Rain of Mololani, Kāne‘ohe, O‘ahu

Rain over a crater of that [same] name on Mōkapu Peninsula, O‘ahu.

From Harold Winfield Kent's *Treasury of Hawaiian Words in One Hundred and One Categories* (1986: 378).

v. *Nihipali Rain*

Nihipali rain is associated with Ka'ū, Hawai'i, and with Moelana, O'ahu, and is also the name of a wind. "Nihi pali" means "to creep along the cliffs" and it is both the name of a specific rain and a generally descriptive term; its various usages are determined by the context (Akana and Gonzalez 2015: 207).

Rain of Moelana, O'ahu

Ioseba Nawai aloha	<i>Beloved Ioseba Nawai</i>
Ku'ū kāne mai ka ua Nihipali ma Moelana ē	<i>My dear husband from the Nihipali rain at Moelana</i>
Lana mai ka mana'o i pā 'ia e ke aloha ē	<i>Buoyant thoughts are struck by love</i>
Ku'ū aloha pau 'ole lā	<i>My endless love</i>

From a kanikau for Ioseba Nawai (Noholoa 1862; trans. Akana and Gonzalez 2015: 207).

Ka ua Nihipali o Moelana.	<i>The [Nihipali] rain that sneaks along the cliffs at Moelana.</i>
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This 'ōlelo no'eau (#1589) compiled by Pukui notes that the Nihipali is "the rain at Moelana, below the Nu'uaniu Pali" (Pukui 1983: 172).

vi. *Pō'ailau'awa Rain*

The Pō'ailau'awa rain is associated with Moelana, O'ahu. "Pō'ai lau 'awa" means "to surround the 'awa leaves" (Akana and Gonzalez 2015: 236).

Rain of He'eia, O'ahu

A ku'ū hoa e noho lā i ka la'i	<i>And my companion who resides in the calm</i>
I walea i ka ua Kaniko'o o He'eia	<i>Relaxing in the Kaniko'o rain of He'eia</i>
I ka ua Pō'ailau'awa o Moelana	<i>In the Pō'ailau'awa rain of Moelana</i>

From a mele by Halemano as he played kilu and recalled the time when he and his wife, Kamalālāwalu, lived in the forests of Moelana in Kekele, O‘ahu (Fornander 1916-20: 255).

vii. Pōpōkapa Rain

Pōpōkapa rain is associated with Nu‘uanu, O‘ahu, but it is also found on other parts of O‘ahu and on Hawai‘i Island. “Pōpō kapa” means “to bundle up kapa” (Akana and Gonzalez 2015: 240).

Rain of Kekele, O‘ahu

Ku‘u hoa mai i ka ua Wa‘ahila o Nu‘uanu *My dear companion from the Wa‘ahila rain of Nu‘uanu*

Mai ka ua Pōpōkapa o Kekele *From the Pōpōkapa rain of Kekele*

From a kanikau for J. Henry (Kahinawe 1862; trans. Akana and Gonzalez 2015: 276).

b. Wind Names

According to ancient Hawaiian legend, the descendants of La‘amaomao, the wind god, used his gourd to control the winds and cause the demise of their enemies. Pāka‘a and his son Kūapāka‘a, La‘amaomao’s descendants, control the winds by chanting the wind name, which recalls that particular wind from the gourd; each wind name is associated with an ahupua‘a or place. Pāka‘a passed on his knowledge of the wind names and the gourd to Kūapāka‘a, who called on all of the winds to destroy the canoe fleet of Pāka‘a’s enemies in the Kaiwi Channel separating O‘ahu and Moloka‘i.

The following is an excerpt from the chant in Moses K. Nakuina’s *The Wind Gourd of La‘amaomao* used to name the winds of O‘ahu, focusing particularly on the wind names of Ko‘olaupoko:

Holopali is of Ka‘a‘awa and Kualoa,

Kiliua is of Waikāne,

Mololani is of Kua‘a‘ohe,

Ulumano is of Kāne‘ohe,

The wind is for Kaholoakeāhole,
Puahiohio is the upland wind of Nu‘uanu,
Malanai is of Kailua,
Limu-li-pu‘upu‘u comes ashore at Waimānalo,
‘Alopali is of Pāhonu,
At Makapu‘u the winds turn,
The Kona winds turn, the Ko‘olau winds turn,

The winds will turn before you and find you,
You’ll be overwhelmed, O deaf ali‘i,
The winds will gather,
The na‘ena‘e leaves will bend,
You’ll be swept ashore at Awāwamalu,
Caught in the fishing net of the head fisherman,
Your thigh bone and upper-arm bond
Will be made into fishhooks,
The catch the pāo‘o and the ‘ōpakapaka,
Your flesh will be without bones,
The black crab, the shearwater will eat your remains,
The life from the parents will be broken off,
Here I am, the ‘aumakua kanaka,
Listen to my life-giving words,
Keawenuia‘umi, come ashore, a storm is coming,
When you sailed yesterday, it was calm (Nakuina 2005: 43-44).

This chant reveals that the wind of Kāne‘ohe is Ulumano, which literally translates to “blowing hard.” The Ulumano wind is characterized as a strong wind blowing from a given direction in each locality, as a strong southeast wind in Ka‘ū and Puna, Hawai‘i, and at Kāne‘ohe, O‘ahu.

D. Intangible Cultural Resources

It is important to note that Honua Consulting's unique methodology divides cultural resources into two categories: biocultural resources and built environment resources. We define biocultural resources as elements that exist naturally in Hawai'i without human contact. These resources and their significance can be shown, proven, and observed through oral histories and literature. We define built environment resources as elements that exist through human interaction with biocultural resources whose existence and history can be defined, examined, and proven through anthropological and archaeological observation. Utilizing this methodology is critical in the preparation of a CIA as many resources, such as those related to akua (Hawaiian gods), do not necessarily result in material evidence, but nonetheless are significant to members of the Native Hawaiian community.

Hawaiian culture views natural and cultural resources as being one and the same: without the resources provided by nature, cultural resources could and would not be procured. From a Hawaiian perspective, all natural and cultural resources are interrelated and all natural and cultural resources are culturally significant. Kepā Maly, ethnographer and Hawaiian language scholar, points out, "In any culturally sensitive discussion on land use in Hawai'i, one must understand that Hawaiian culture evolved in close partnership with its natural environment. Thus, Hawaiian culture does not have a clear dividing line of where culture ends and nature begins" (Maly 2001: 1).

1. 'Ōlelo No'eau

'Ōlelo no'eau are another source of cultural information about the area. 'Ōlelo no'eau literally means "wise saying," and they encompass a wide variety of literary techniques and multiple layers of meaning common in the Hawaiian language. Considered to be the highest form of cultural expression in old Hawai'i, 'ōlelo no'eau bring us closer to understanding the everyday thoughts, customs, and lives of those that created them.

The 'ōlelo no'eau presented here relate to Kāne'ohe, Ko'olaupoko, and the place names within the ahupua'a. These 'ōlelo no'eau are found in Pukui's *'Ōlelo No'eau: Hawaiian Proverbs & Poetical Sayings* (1983). The number preceding each saying is provided.

550 He au Ko'olau aku ia.

That is Ko'olau weather.

The Ko'olau, or windward, side of an island is often storm-beaten. This expression was first used in a chant to Hi'iaka by Wahine'oma'o, who pleaded with her not to let her wrath lead to destruction. Later used as a warning that headstrong wilfulness leads to distress.

1114 Hopu hewa i ka 'āhui hala o Kekele.

[One] grasps the pandanus cluster of Kekele by mistake.

Said of one who meets with disappointment. A play of *hala* (to miss or to be gone). The *hala* cluster is often used figuratively to refer to the scrotum. Kekele is a grove at the base of Nu'uaniu Pali.

1801 Kini Kailua, mano Kāne'ohe.

Forty thousand in Kailua, four thousand in Kāne'ohe.

A great number. Said by a woman named Kawaiho'olana whose grandson was ruthlessly murdered by someone from either Kailua or Kāne'ohe. She declared that this many would perish by sorcery to avenge him. Another version credits Keohokauouli, a kahuna in the time of Kamehameha, for this saying. He suggested sorcery as a means of destroying the conqueror's O'ahu enemies.

2153 Me he lau no ke Ko'olau ke aloha.

Love is liked the ends [fingertips] of the Ko'olau breeze.

Love is like a zephyr – gentle and invisible but present nevertheless.

2211 Na hala o Kekele.

The hala grove of Kekele.

This grove, famous for the variety and fragrance of its *hala*, was found at the foot of Nu'uaniu Pali. Some people declare that although the *hala* trees have been cut down for many years, they can still smell the fragrance in the breeze as they pass at night.

2285 Na pali hāuliuli o ke Ko‘olau.

The dark hills of Ko‘olau.

The hills and cliffs of the windward side of O‘ahu are always dark and beautiful with trees and shrubs.

2. Mele

Honua Consulting completed searches of mele written about the ahupua‘a of Kāne‘ohe and its district of Ko‘olaupoko. Maui historian Inez Ashdown wrote in 1976 about the importance of mele:

The natives of Hawai‘i Ne‘i saw the Creator in everything and the Haku Mele or Music Masters delighted in presenting the chants and songs, mele and oli, to inspire the people. Such mele tell of God’s assistant spirits which, to the imaginative natives, represented the winds, rains, and so on. Each spirit of creation was depicted as male or female and was given a personality and a name indicative of purpose. Hence the name of the volcanic action creating and cleansing the earth. She is beautiful, alluring, desirable. She also is unpredictable because she is temperamental and usually full of fiery emotions. She is an old woman asking help when she lies to test mortals, and woe betide anyone who is rude or inconsiderate of this form of an older person to whom respect and Aloha must be given (Ashdown 1976: 5).

The following mele was written by Louise Hart Hopkins in 1939 to honor her home, Halekou, nestled in the beautiful Ko‘olau mountains.

Aloha Ku‘u Home Kāne‘ohe – by Louise Hart Hopkins

Aloha ku‘u home a i Kāne‘ohe	Greetings to my home in Kāne‘ohe
A me nā pali hāuliuli o nā Ko‘olau	And the green cliffs of the Ko‘olau
Noho aku i ka la‘i ku‘u home	Staying in the peace of my home
‘Upu a‘e ka mana‘o no nā hoaloha	Bringing thoughts of friends

I laila mākou uilani ai	There we find pleasure
A me ka wai noenoe e pipi'i ana	And the misty bubbling waters
Ho'okahi ka mana'o i kualono	One thought in the mountain ranges
A me ka leo aloha e ho'okipa mai	And the beloved voice of hospitality
Ha'ina 'ia mai ana ka puana	Tell the refrain
A me nā pali hāuliuli o nā Ko'olau	Of the green cliffs of the Ko'olau

The following mele was written in the 1930's to commemorate the installation of electricity in Kāne'ohe. This mele also tells of a delightful love affair on the windward side of O'ahu.

Kāne'ohe – by Abbey Kong and Johnny Noble

'Ōlapa ka uila i Kāne'ohe	Light flashes at the Kāne'ohe
Ka hui laulima o 'i Laniwai	Co-operative Society of Laniwai
*(Ka hui lau lima Hi'ilaniwai)	*Co-operative Society of Hi'ilaniwai
Hui:	Chorus:
Me ka ua Apuakea	The Apuakea rain
Ka la'i a'o Malūlani (Mololani)	The peace of Malūlani
Me ka anu o ke Ko'olau	The coolness of the Ko'olau
Kaulana mai nei Ko'olaupoko	Famous is Ko'olaupoko
Ua 'ā ka uila a'i Kāne'ohe	The lights go on at Kāne'ohe
Hanohano Mōkapu i ka 'ehu kai	The glory of Mōkapu is the sea spray
Te tua motumotu a'o He'eia	And the jagged ridge of He'eia
Ho'okahi meahou ma He'eia	The news at He'eia
Ka uwea kelekalepa leo nahenahe	Sweet-voiced telegraph wire
Aia 'ike lihi o ka 'āina	Glimpses of the land
Kahi a ke aloha i walea ai	Where love finds delight

Existing Resources

Walea ana 'oe me ke onaona	Delight with the sweet one
Ku'u lei hulu mamō pili i ke anu	My mamō feather lei in the coolness
Ua ana ho'i au a i kō leo	Delighted by your voice
Kō pane 'ana mai "Pehea au"	You ask, "How am I?"
Ha'ina 'ia mai ana ka puana	Tell the refrain
Ua 'ā ka uila a'i Kāne'ohe	The light goes on at Kāne'ohe
*alteranate stanza	*alternate stanza

The following mele details two lovers who play among the waterfalls in the Ko'olau mountain range of O'ahu's windward coast. According to Szego, "the word '*Silosila*' is ambiguous: it could refer to a specific pool of water where the lovers met or, in a song thick with allusions to intimacy, *Silosila* may have been used to distinguish the name of one of the individuals, a common poetic strategy. Furthermore, the second half of the word, 'sila,' was understood to be a Hawaiianization of the English word 'silly,'... thus '*sila*' was foregrounded in singers' consciousness because of the playful mood it helped portray, its likeness to a familiar English word, and the distinctive use of the /s/ in a phonemic environment that usually did not use sibilants" (Szego 2003: 312).

Nani Ko'olau – by Abbey Kong; translation by Puakea Nogelmeier

Nani Ko'olau, a he pō anu	Beautiful is Ko'olau, and the night is chill
Ka 'iniki welawela o ka Makasila	With the invigorating nip of Makasila rain
I laila kāua e walea ai	It's there that we'll take our delight
Me ka wai o 'ūla la e hō	With the waters of the tropic bird's lofty realm
A hiki kāua i Nu'uauu	And then we reach Nu'uauu
A inu i ka wai o Silosila	And partake of Silosila's waters
I laila kāua i Laniwai	There we two experienced Laniwai
Me ka wai o ka pali Ko'olau	With the waters of the Ko'olau cliffs

I laila aku wau i ka pō nei	I was there myself last night
Ua pa'a kou puka i ka laka 'ia	Your door was closed and locked
Wehe aku au la, 'ole e ka hemo	I tried to open it but it wouldn't budge
Me ka wai o ka 'ūla la e hō	With the waters of the tropic bird's lofty realm
Ha'ina 'ia mai ana ka puana	And so the story shall be told
Ku'u hoa o ka nani o ke Ko'olau	My companion amid the beauty of Ko'olau
Me 'oe ho'i au e ho'oipo ai	It is with you, indeed, that I'll share romance
Me ka wehi o ka ua la'aku	And shall be adorned with the La'aku rain

The following mele was composed by Alice Ku'uleialohapoina'ole Nāmakelua. While vacationing with friends at Punalu'u in the summer of 1958, she was driving along the windward coast en route to Honolulu. As they approached the Pali, it began to rain and the mist hovered overhead and water was running down the road. When the mist lifted, the mountains and waterfalls were spectacular. These beautiful things were the inspiration for this mele composed on December 31, 1959.

Aloha Ko'olau – by Alice Nāmakelua; translation by Puakea Nogelmeier

Aloha ka nohona o ke Ko'olau	I love living at Ko'olau
Huli aku nānā i ke kuahiwi	To turn and look at the mountains
Pi'ina i ka nuku a'o Nu'uauu	Climbing the gap of Nu'uauu
Nounou ē ka ua lā i ka 'ili	The rain pelts the skin
Ka ne'e a ka noe ma mua pono	The creeping of the mist right ahead
A he nani a he nani ke 'ike aku	Is beautiful to see
Hiolo a ka waialele i nā pali	Waterfalls tumble from the cliffs
Ho'opulu i nā pali hāuliuli	To moisten the dark cliffs
Ka ua nounou i ka 'ili	The rain pelts the skin
Me ka 'ohu kau maila i ka piko	And the fog settles on the peak

Existing Resources

Ha'ina ē ka ua o ke Ko'olau	Tell of the rain of Ko'olau
Ho'opulu ana i ku'u pāpālina	Moistening my cheek

The following is a mele hula pahu (mele that accompanies a hula danced to a drum beat). This mele was first performed by the goddess Hi'iaka as she traveled through O'ahu on her way to Kaua'i to fetch Pele's lover, Lohi'au. Among the many obstacles she encountered was the rain at Ko'olaupoko, O'ahu. Only the first six lines are usually performed today.

A Ko'olau Au

A Ko'olau au 'ike i ka ua	From Ko'olau, I watch with the rain
E kokolo a lepo mai ana e ka ua	It comes with swirling dust
E ka'i kū ana ka'i mai ana e ka ua	The rain passed in columns, it passed by
E nū mai ana ka ua i ke kuahiwi	The rain roars in the mountain
E po'i ana e ka ua me he nalu	It sounds like a roar of the surf
E puka, e puka mai ana ka ua	It smites, it smites, now the land
Weli, ke one i ka heli ia e ka ua	The sands were pelted by the rain
Holowai nā kahawai	The creek beds filled, water ran down
Koke wale nā pali	It poured down the hillsides
Hae e ka wai ka ilina he 'ilio	The water became angry and raged like a dog
He 'ilio hae ke nahu nei	The dog rages, he bites to be free

E. Cultural Practices

Prior to contact and modernization, a range of cultural practices took place in the project area. These practices would have been predominantly related to traditional agriculture and aquaculture and were obstructed beginning in the 19th century by western modernization. The presence of the luakini heiau also signifies that cultural practices involving sacrifice and religion occurred in the project area, supported by the various mo'olelo detailing these sacrifices to the gods.

Existing Resources

Contemporaneously, the heiau was primarily maintained for preservation, recreational, and educational purposes. Members of the Ko'olaupoko Hawaiian Civic Club have served as caretakers of the heiau and the surrounding area to the extent possible, but express concerns about the ability to safely access the heiau, as the path requires navigating a steep incline. This can be particularly onerous for kūpuna who would like to visit the site.

Presently, the heiau also requires extensive clearing, as invasive flora, specifically *Albezia*, which are new to the area, have begun to grow rapidly in the site itself, posing considerable risk to the integrity of the structure's walls. If the site can be cleared of the invasive trees and brush, community members would be interested in assisting with maintaining the site. Kumu Hula have been caring for the lā'au in the area for generations, specifically the laua'e, and also pala'ā.

V. Oral Records, Interviews and Consultations

Best practice in this area calls for review of existing research and documentation to see if there are existing oral records that exist on the project area that would be applicable to the current project.

A. Existing Oral Records

In 2008, HHF Planers commissioned an AIS and CIA from Cultural Surveys Hawaii (CSH) for a 66-acre project area of which approximately 56.6 acres were included in the former petition area. Most of the current petition area was included in the previous petition area. Oral histories previous gathered are summarized in the following table (Table 8).

Table 8. Summarization of Previously Gathered Oral Histories

Name and Affiliation	Summary
William Ailā ,Hui Mālama I Nā Kū O Hawai‘i Nei	In a 2007 email to CSH, it was recommended: 1. As complete as possible a AIS be conducted; 2. Any burials found be preserved in situ unless they are in the path of utilized that cannot be rerouted; 3. No architectural plans be finalized until AIS is finalized; this will allow for redesign.
Steve Brown, Hawaiian Trail and Mountain Club	In a 2007 email, Mr. Brown wrote: Mr. Brown confirmed that the club does conduct recreational hikes in the area.
Charles Burrows, ‘Ahahui Mālama I Ka Lōkahi	In his 2007 interview: Dr. Burrows explained that the reason this site was chosen for a <i>heiau</i> was most likely the <i>pūnāwai</i> or fresh water springs found at the base of the <i>heiau</i> and used by the early <i>kāhuna</i> (priests) for ritual purposes, drinking and irrigation of their <i>lo‘i kalo</i> (taro pond fields): There are very few <i>heiau</i> associated with <i>lo‘i kalo</i> and the growing of other ethnobotanical crops. Below the <i>heiau</i> complex and into the

Name and Affiliation	Summary
<p>Charles Burrow (continued)</p>	<p>marsh, extending to Maunawili Valley, was grown with taro. The dryland slopes were cultivated with the growing of sweet potato, banana, breadfruit and sugarcane. One part of the marsh, about 450 acres, was constructed as an inland <i>loko i'a</i> (fishpond), the largest of its kind in the Hawaiian Islands at that time.</p> <p>Dr. Burrows pointed out <i>'auwai</i> (irrigation ditches) and other cultural sites that can be seen from the Ulupō Heiau such as the Pahukini Heiau, across the marsh on the slopes of Kapa'a, and Holomakani Heiau -- two of five <i>heiau</i>, including Kāwa'ewa'e Heiau, purported to have been built by the high chief 'Olopana. The Pahukini Heiau once overlooked the site of an ancient Hawaiian adze quarry. Pahukini Heiau, also in Kailua Ahupua'a, is approximately 1.02 miles east-south-east of the project area (Figure 39). Dr. Burrows described the Ulupō Heiau in pre- Contact times and now:</p> <p>When you think about Ulupō Heiau, it is more than what you see here...more than just the <i>heiau</i>. It's a whole complex where present buildings, houses, churches, roadways have been constructed during the historic and modern periods. There was a <i>kahuna</i> and <i>konohiki</i> (<i>ahupua'a</i> land manager) who lived in the <i>heiau</i> complex who took care of the <i>heiau</i> and managed the growing of food crops and other useful plants not only for the rituals that took place at the <i>heiau</i> but also for the community's food subsistence. In the Ulupō Heiau state property of 28 acres are the last remnants of the ancient Hawaiian archaeological and historic sites still existing and serves as a cultural <i>kīpuka</i> [island, buffer zone] for future generations. A cultural <i>kīpuka</i> in Kailua serves as seeds for new growth that perpetuates the Hawaiian and historic cultures but also for the restoration of its biological ecosystems. It provides the seeds for renewal, culturally and ecologically and is at once our past, present and future.</p> <p>Regarding the Kāwa'ewa'e Heiau and the proposed HMP expansion</p>

Name and Affiliation	Summary
<p>Charles Burrows (continued)</p>	<p>project, Dr. Burrows is particularly concerned about the archaeological sites in the project area, possibly associated with the <i>heiau</i>. “Sewer lines [and other aspects of the development], especially where the subdivision is planned, could impact the sites.” He suggested that CSH also try and contact “Buddy” Earl Neller, and offered the following recommendations:</p> <ol style="list-style-type: none"> 1. The project should be reviewed by the Office of Hawaiian Affairs’ Native Hawaiian Historic Preservation Council (NHHPC) which serves to advise the OHA trustees on matters pertaining to Hawaiian archaeological sites and also the OHA Administrator (see Clyde Nāmu’o, OHA in Table 4). Dr. Burrows sits on the NHHPC and noted that the Council would be interested in seeing a survey of all the archaeological sites in and around the project area “right up to the ridge line”. 2. In designing a plan for protecting the sites, the owner should consult and work directly with the Queen Emma Hawaiian Civic Club and the Ko’olaupoko Hawaiian Civic Club. 3. There should be cultural monitoring during all phases of the planned development.
<p>Donna Ann Kameha’iku Camvel, Ko’olaupoko Hawaiian Civic Club</p> <p>Wali Camvel, Ka ‘Ailehua</p> <p>With Mahealani Cypher, Ko’olaupoko Hawaiian Civic Club</p>	<p>Based on a 2007 visit to the area, the following impressions were recorded:</p> <p>The group first visited CSH 2 (SIHP-4681). The general consensus of Mahealani Cypher, Donna Camvel and Wali Camvel was that the terraces and other features of the landscape did not represent an agricultural complex, but has a distinct spiritual feel to it. The site must be viewed in relationship to the Kāwa’ewa’e Heiau, as part of the <i>heiau</i> complex. Two large stones on a small rise above the shelter were noted, and it was suggested that they may be <i>pōhaku kia’i</i> or, stone</p>

Name and Affiliation	Summary
<p>Donna Ann Kameha‘iku Camvel, Wali Camvel, and Mahealani Cypher (continued)</p>	<p>guardians (Figures 23 and 24). One rock appears to be in the shape of a dog’s head (see Figure 24), and Mahealani Cypher suggested that perhaps it was there to represent the Hawaiian god, Kāne. According to the group, together, the 2 <i>pōhaku kia’i</i> appear to guard the area which may have been used by chiefs and their retinue for preparation, prayer and/or sacrifice.</p> <p>The point was emphasized that all the sites near the Kāwa‘ewa‘e Heiau must be viewed in relationship to the <i>heiau</i> as part of a complex. Mahealani Cypher offered that CSH 2 (SIHP- 4681), or features nearby, may have been where the Hale o Papa or women’s <i>heiau</i>, and/or the Luakini, or men’s prayer complex, associated with the Kāwa‘ewa‘e Heiau may have been located. Hale o Papa were temples where the female chiefs worshiped. The Hale o Papa was located next or adjacent to the Luakini for the purposes of conducting ritual ceremony. Luakini were used by the ruling chiefs for prayer, human sacrifices and to perform temple work.</p> <p>The group did not have many comments about CSH 5 (SIHP-4684), though noted that a large rock between sites 2 and 5 may also be a <i>pōhaku</i>. Wali Camvel expressed <i>mana’o</i> that perhaps this location could have been the house site for the <i>kahu</i> or caretaker of Kāwa‘ewa‘e Heiau. He suggested the group follow the ridgeline for its proximity to the site. The group then followed the ridgeline extending from above CSH 5 (SIHP -4684) to Kāwa‘ewa‘e Heiau. The group members shared stories of the <i>heiau</i>, particularly ‘Olopana’s attempt to sacrifice Kamapua‘a and the hog- god’s brilliant escape through chicanery (see one version of the story in Section 3). Mahealani Cypher shared a version of the <i>mo’olelo</i> she learned from a translation provided by historian Dr. Lilikala Kame‘eleihiwa in her book, “Kamapua‘a”. The point was made that there are several versions of the Kamapua‘a legend, as well as stories about the origin of the Kāwa‘ewa‘e Heiau. The group also mentioned that there is a <i>hōlua</i> (referring to the sled or sled</p>

Name and Affiliation	Summary
<p>Donna Ann Kameha‘iku Camvel, Wali Camvel, and Mahealani Cypher (continued)</p>	<p>course, used on mountain slopes) associated with the <i>heiau</i>, presumably on the ridges near the <i>heiau</i>. They were uncertain of the precise location of the <i>hōlua</i> and wondered if CSH has found archaeological evidence of the slides.</p> <p>The final site visited by the group was CSH 11/12 (SIHP-6929), immediately south of Pōhai Nani Retirement Home where participants viewed the <i>pōhaku</i> and noted the arrangement of old <i>kī</i> or <i>tī</i> (<i>Cordyline fruticosa</i>) planted around the <i>pōhaku</i> (Figure 25) and explored the small rock quarry upstream. Mahealani Cypher remarked that the area around the <i>pōhaku</i> had a number of mango trees and shared her theory that <i>kūpuna</i> long ago may have planted mango trees to mark sacred sites for future generations. She bases her belief on the observation that many sacred areas she has visited around the Hawaiian Islands have had mango trees planted around the sites. Around the 1820s (the time of the introduction of the mango to Hawai‘i), pressure from Caucasian missionaries to Christianize Hawaiians, coupled with the overthrow of the <i>kapu</i> system by ruling chief Liholiho (Kamehameha II) in 1819, drove many Hawaiians to practice their native religion underground. She believes that clandestine practitioners of the indigenous religion, noticing the size and longevity of mango trees, decided to plant trees in sacred areas as indicators of religious sites for their descendants. Wali Camvel shared that that the walled structures located at this site could have included a <i>kuahu</i> (altar) and further added that the <i>ahu</i> might have been dedicated to the god Kāne.</p> <p>Representatives from the Ko‘olaupoko Hawaiian Civic Club and Ka ‘Ailehua who visited the project area and vicinity made the following recommendations:</p> <ol style="list-style-type: none"> 1. All the above sites – including the <i>pōhaku</i> between CSH 2 (SIHP-4681) and 5 – should be preserved and protected through the creation

Name and Affiliation	Summary
<p>Donna Ann Kameha‘iku Camvel, Wali Camvel, and Mahealani Cypher (continued)</p>	<p>of <i>kīpuka</i>, referring to a calm or clear place, or oasis, in this case a protected area and buffer zone.</p> <p>2. Identification and preservation of the <i>hōlua</i> (sled course).</p> <p>3. The group looks forward to working with the planners and owner to establish a collaborative agreement for the care of the Kāwa‘ewa‘e Heiau and associated sites.</p>
<p>Linda Chang,⁴ Hula practitioner, kupuna and kama‘āina of Kāne‘ohe</p>	<p>In a 2007 interview:</p> <p>Mrs. Linda Chang, a <i>lei</i>-maker, <i>hula</i> practitioner and longtime resident of Kāne‘ohe, discussed her background and knowledge of the project area. Mrs. Chang recently moved with her husband to Hilo, Hawai‘i for the quiet and lush environment that is ideal for growing and gathering <i>lei</i> plants. Formerly, her family lived on Nāmoku Street, a few blocks away from the proposed HMP expansion project area, since 1978. She has danced <i>hula</i> for the last 15 years and has been associated with floral arrangements, <i>lei</i> making, and native plants for over 40 years. She has conducted <i>lei</i> making classes/workshops, and has made many of the adornments for the <i>hālau hula</i> she danced with for over 14 years, Hālau Hula ‘O Nāpunahēleonāpua. Mrs. Chang developed her <i>lei</i>-making skills through this experience and has been producing <i>lei</i>(s) and adornments professionally for the last 12 years. She has also participated as a judge for several years in the City of Honolulu's Lei Day Contest.</p> <p>Mrs. Chang stressed the importance of the proposed project area for collection of the <i>hula</i> plant <i>laua‘e</i> (<i>Phymatosorus grossus</i>) because of its superior color, thickness and <i>maile</i>-like scent, and noted that the closest area where <i>laua‘e</i> of this quality can be found is on a trail at the</p>

⁴ Ms. Chang had moved away from the area at the time the 2007 interview occurred.

Name and Affiliation	Summary
Linda Chang (continued)	<p>top of the Pali, but that it is difficult to access. Mrs. Chang has also been involved in cultural education through her <i>hālau hula</i>. She noted that the <i>hālau hula</i> always takes responsibility for tending the areas from which plants are collected and commented, “The <i>hālau</i> realizes the importance of preserving the native flora for future generations to enjoy. How we have done this and continue to do this, is by taking the <i>haumāna</i> [students] to sites where our <i>kumu</i> and <i>kōkua</i> have gone to harvest the <i>laua’e</i>, and the <i>palapalai</i> [native fern, <i>Microlepia setosa</i>] and we teach them how to look for the mature branches and how to pick the stems without damaging the plant. They are also cautioned to take only what they need and not to over-harvest, not to waste.”</p> <p>Mrs. Chang emphasized that in Hawaiian culture, culture and environment are “intertwined”. She shared her <i>mana’o</i> and cultural-conservation concerns about the proposed project area:</p> <p>The [proposed project area] is a place to find respite. How many parcels will be destroyed before the last greenbelt is all gone? Where will we be able to go to listen to the wind blow through the trees? Dollars speak louder than the grace and beauty of a place. We take children in the <i>hālau</i> to see the context of <i>hula</i> plants. Going to a park is not the same as taking them to the natural environment [in which <i>hula</i> plants are gathered]. The context of <i>hula</i> plants is very important.</p> <p>Mrs. Chang recommended CSH contact Kumu Hula Frank Kawaikapuokalani Hewett and Aunty Alice Hewett.</p>
Melanie Chinen, State Historic Preservation Division	No response
Randy Ching, Sierra Club	Referred to Jim and Cindy Waddington

Name and Affiliation	Summary
<p>Mahealani Cypher, Ko'olaupoko Hawaiian Civic Club</p>	<p>Additional information provided by Mahealani Cypher in 2007:</p> <ol style="list-style-type: none"> 1. Kāwa'ewa'e Heiau [is] a religious site sacred to native Hawaiians... [T]he surrounding area would also have religious significance as part of the heiau complex. With a luakini heiau as prominent as Kāwa'ewa'e, there is little doubt that there would have been associated sections of the property nearby that 2. Pōhaku:...[M]y understanding is that stand-alone pōhaku that had religious significance were usually known as "pōhaku o Kāne", which we consider to be religious shrines and places of worship. At the site referred to as "CSH 5"... [the] stone by itself...is likely to have been a "pōhaku o Kāne". I am not sure it would have marked the location of a caretaker's hale or the home of the kāhuna (priests), but that is possible. But Pōhaku o Kāne were generally just outside the door of many hale, serving as a family protector or shrine. In the case of the two pōhaku seen at the area designated as "CSH 2", I concur with Donna Camvel's thinking that these serve as guardians and hence would be "pōhaku kia'i". The proximity of the two stones in a site which appears to have multi-level platforms, the size and shape of the two stones, indicated to me (and possibly to Donna Camvel) that this was a very important site. These pōhaku kia'i may even have guarded the women of the hale o Papa, as the chiefess would have lived there and had the elevated status to warrant placement of such stones near her worship area. 3. Mo'olelo about 'Olopana and Kamapua'a: I believe the story I shared with you about Kamapua'a overcoming 'Olopana at Kāwa'ewa'e was learned from a translation provided by historian Dr. Lilikalā Kame'eleihiwa in her book, "Kamapua'a". 4. Hōlua slides: I recall I pointed out to you the two slopes, covered with trees and brush, just mauka of Kāwa'ewa'e, where I believe the hōlua slides once were used by the chiefs for recreation. If the brush

Name and Affiliation	Summary
<p>Mahealani Cypher (continued)</p>	<p>and trees were cleared and soft grasses re-planted on those slopes, they would adequately serve as fine hōlua slide areas. It is likely the nearby cemetery land once contained springs and tī leaf groves, and could have been the source of water needed to wet the slopes.</p> <p>5. Location and Relationship to broader Kāne’ohe ahupua’a and other heiau: Standing upon Kāwa’ewa’e Heiau, it is clear that the heiau was constructed strategically to be in the sight-line with Kukuiokāne Heiau, the largest and most important heiau in the Kāne’ohe region. Also clearly visible from Kāwa’ewa’e are the peaks of Pu’u Mā’eli’eli and ‘Ōhulehule, and the island known as Moku o Lo’e (Coconut Island). Also clear from this site are the peaks of Konahuanui and Keahiakahoe, all of which bring stronger mana to elevate the spiritual and religious strength or power of Kāwa’ewa’e. Our mo’olelo tells us that the great chief ‘Olopana (and others) occupied or visited at Kāwa’ewa’e for some time; hence, it would have been a place where the po’e kahiko (people of ancient times) brought their pleas for kōkua, for resolution of disputes, or other requests for help. A great chief’s presence indicates the complex had to be quite extensive to support his entourage, his retainers and those who served the chief. Food had to be gathered by the kahuna and others from the surrounding area, and these goods had to be managed by the priests and their helpers at Kāwa’ewa’e. It was a thriving mini-community of its own within the ‘ili of Kāwa’ewa’e. Therefore, the location, prominence and connection with other major sites, and the historical record of ‘Olopana’s presence, tell me that the heiau was not limited to the rock lined walls atop the ridge of Kāwa’ewa’e, but had to contain an entire complex of associated structures and dwellings that housed and accommodated all who would be needed for a heiau of this prominence.</p> <p>6. Mango trees: I still maintain that the mango trees were chosen by some kahuna to mark important religious sites. This occurred after the heiau were torn down or burned by the Priest Hewahewa following</p>

Name and Affiliation	Summary
<p>Mahealani Cypher (continued)</p>	<p>the breaking of the kapu system....It's not just the planting of the trees that was interesting; but how the trees were planted, often in a circle around what may have been the piko, or center of mana in that heiau. I recall in the mid-1980s, I took a group of kūpuna (elders) from Kāne'ohē to see Kukuiokāne Heiau. We stood in the fern-covered open center of a grove of large old mango trees that seemed to have been planted in this oval orientation, down the slope of Punalu`u mauka (some say it was 'ili Kihāpai). After our pule (prayers) were said, the kūpuna stood quietly, observant and calm. Later, they told me they felt the mana of the heiau was strongest here, in the piko, in the center of this circular grove of ancient mango trees. Although the mango is an alien species here on O'ahu, its appearance here a few short years after the heiau were destroyed would have been convenient and desirable to those kahuna wishing to mark their sacred sites with a tree that they were told would survive for a very long time.</p> <p>7. Recommendation: It is my recommendation that the landowner consider integrating its plans with the religious significance of the area surrounding Kāwa'ewa'e Heiau's walled enclosure, ensuring that the more obvious and significant cultural properties are buffered and protected from any roadways, bulldozing or other intrusive activity. In all likelihood, there are burials in the area, probably pre-Contact, and this should be addressed through other research. Although the area in modern times was used for farming and urban activities, the radius in the currently undeveloped landscape adjacent to the walled section of Kāwa'ewa'e is relatively undisturbed (except from dirt-bikers and others) and was probably kept that way for a good reason. I request to be further consulted, should you proceed with additional research for the current or expanded project area.</p> <p>She subsequently sent in the following information:</p> <p>In paragraph 4, with reference to the location of the hōlua slides, I am</p>

Name and Affiliation	Summary
<p>Mahealani Cypher (continued)</p>	<p>not too uncertain [sic] as to the location of the slopes they used. If you are in the center of the walled Kāwa‘ewa‘e Heiau looking mauka, you can see the slopes very clearly, albeit covered with brush and trees. It is a logical location. Further research, if necessary, could confirm or reject my observation. I was trying to look at this through the eyes of my ancestors, the kupuna who lived and worked in the area.</p> <p>In paragraph 6, sub-section #1, I am a little concerned about whether paved roadways would be appropriate through the undeveloped area we visited, all of which may be part of the heiau complex. On the day of our field trip, it was explained to us that the landowner wishes to build roadways in this area for the cemetery expansion. I would like to emphasize that this may be problematic.</p>
<p>Elizabeth Dunn, Hawaii Chapter of the Sierra Club</p>	<p>Referred to Randy Ching</p>
<p>Sam Gonn, The Natural Conservancy</p>	<p>Said he could provide no substantive comments</p>
<p>Alice Hewett, kupuna and kama‘āina of Kāne‘ohe</p>	<p>Was unable to reach after initial contact</p>
<p>Frank Kawaikapuokalani Hewett, Kumu Hula</p>	<p>No response</p>
<p>Gary Hiramatsu</p>	<p>Unable to contact</p>
<p>Elizabeth Lau,⁵ Ko‘olaupoko Hawaiian Civic Club</p>	<p>In her 2007 interview, she provided the following information:</p> <p>Mrs. Lau described the project area vicinity in the pre-World War II years, “There used to be pineapple down from the Pali...where the golf course is now....Below where Pōhai Nani [Retirement Home] is now there were dairies like Souza’s and Freitas’s Dairy....The Souza dairy</p>

⁵ Aunty Elizabeth has passed away in the years since this interview was completed.

Name and Affiliation	Summary
<p>Elizabeth Lau (continued)</p>	<p>would use the Kāwa‘ewa‘e Heiau as a cattle pen”. Mrs. Lau recalled the collaboration between farming families; two of the dairy families in the area shared cows, “the Ruiz family owned the cow and the De Costa family milked the cow!” When she was a child, her father was a butcher. He would share meat and butter with the Portuguese families in exchange for Portuguese bread. There was also an egg farm. She and her brother worked there “candling eggs”, referring to the process of holding a strong light above or below the egg to observe the embryo and any cracks in the egg. Mrs. Lau mentioned that there also was a heiau near the egg farm, but was uncertain of the name or exact location. “Souza’s Dairy and others closed when the war came because they had to go to war.” Her family had a “piggery down on Waikalua Road. During the war the area was turned into an Italian prisoner of war camp and the prisoners would work in the laundry across the street”.</p> <p>According to Mrs. Lau, the Pōhai Nani Retirement Home was built on top of a heiau. She reported that when Pōhai Nani was still new the elevator would mysteriously go up and down, and the doors in the apartments would open and shut on their own.</p> <p>Mrs. Lau has no specific cultural concerns about the proposed cemetery expansion project. She commented that the memorial park is a “beautiful place for the [Kāwa‘ewa‘e] heiau”, but expressed her concern about the possible subdivision proposed for land adjacent to the Pōhai Nani Retirement Home, “Better a cemetery than housing. If you have housing, that would damage the heiau. The cemetery [referring to the current Hawaiian Memorial Park] is beautiful. If the cemetery [is expanded] they [Hawaiian Memorial Park] would have to care for the heiau. This would be educational for our younger people [and provide] a place to exercise, and a pretty place to sit and eat lunch.”</p>

Name and Affiliation	Summary
Marian Leong	No comments
Aaron Mahi ⁶	Reserved comments
Chinky Mahoe, Kumu Hula	No response
Jace McQuivey	Referred to Aaron Mahi
Mahealani Merryman	Referred to Charli Ogata and Chuch Burrows
Daniel Motohiro, Koolaupoko Lion’s Club	In a phone conversation in 2007, he stated that the club used to be involved in the restoration of the heiau and he attempted to reach the Ko’olaupoko chapter of the club without success. It was noted that the chapter was inactive. He had no other comments.
Earl “Buddy” Neller, Archaeologist	<p>In a 2007 email to CSH, Mr. Neller offered the following:</p> <p>“Thanks for contacting me, and for asking me about sites in the area of Kāwa’ewa’e Heiau. I have been to the area many times, generally related to my job as an archaeologist for the State of Hawaii.</p> <p>To my knowledge, the boundaries of Kawa’ewa’e Heiau are unknown. Generally, people think of the large stone wall forming a rectangular enclosure as the boundaries of the site, but it is known that there are visible stone features on the ground that extend beyond the enclosure, as described in Gilbert McAllister's report "Archaeology of Oahu" (1933), and as seen by myself and others during visits to the heiau. Understanding the boundaries of the heiau is important, because there may be features in your project area which could be relevant to the archaeological study and modern day use of the heiau.</p> <p>One of the problems with visiting Kawa’ewa’e Heiau is that there is no good access: no good parking area, no good trail.</p> <p>The current configuration of the heiau results partially from its use as a cattle enclosure, and partially from other activities during the</p>

⁶ Due to Uncle Aaron’s current role on the State Land Use Commission, he was not contacted for an interview for the current CIA.

Name and Affiliation	Summary
<p>Earl “Buddy” Neller (continued)</p>	<p>historic period, such as the probable removal of rock for nearby construction. It is entirely possible that at some time in the past the heiau grounds were much larger than the rectangular enclosure (and appendages) that we easily see today. The extent of the heiau throughout its history is an archaeological question that has never been investigated.</p> <p>People talk about a heiau site as if the visible stone ruins were a heiau, rather than being the ruins of a heiau with much of the original structure gone. People talk about a heiau as if its boundaries are determined by the limits of the visible stone pavings and rock alignments, as if landscape features such as springs, gardens and other landscape features such as akua represented by pohaku were not an integral part of the historic and cultural site. At the heiau site of Halulu [on Lāna‘i], for instance, the pōhaku known as Lohe is a part of the cultural tradition at the site, but it is located outside the boundaries of the enclosing walls and terraces, near the ko‘a in the valley below. Plants, such as tī, are an integral part of heiau traditions, but they are generally not mentioned in archaeological surveys. Don’t overlook the importance of Hawaiian plants growing in the project area. Tī is often found at heiau sites, and in Hawaiian gardens of old, and the leaves are still used in many ways. At Kalaupapa I used the ti leaves in my garden when I made kūlolo [Pudding made of baked or steamed taro and coconut cream]. I have never had the chance to eat the baked roots of ti plants, but I look forward to it.</p> <p>Archaeology of O‘ahu lists a heiau that should be in this land parcel, although it may not be in the project area, Site 356, Pu‘u Makani Heiau. The stones were taken to build a cattle enclosure down slope from the heiau. The stone-walled corral is shown on an 1876 map of Kāne‘ohe, reg. map no. 585, DAGS Survey Division Archives. This heiau was probably located on the small hill delineated by the 400-420 foot</p>

Name and Affiliation	Summary
<p>Earl “Buddy” Neller (continued)</p>	<p>contours on the topographic map. The remains of this destroyed heiau should be located.</p> <p>While looking for Pu‘u Makani Heiau many years ago, I found two sites on this parcel which should be noted. On the ridge above Kawa‘ewa‘e Heiau, along the boundary between Kailua and Kāne‘ohe, I found the remains of a small, terraced heiau. The terraces were small, and there was not much stone to be seen. It seems possible that it was the site of Pu‘u Makani Heiau. I do not believe it is big enough to provide the stone that must have been used to make the cattle corral below, nor is the location the same as that indicated by McAllister in <i>Archaeology of O‘ahu</i>.</p> <p>Also, on the ridge leading down from the ahupua‘a boundary (and above the small knoll where Pu‘u Makani Heiau was probably located) I crossed a steeply sloping dirt ramp (covered in dense vegetation) that seemed to be man made, and I thought it may have served as a hōlua in ancient times. One of the interesting things about hōlua in this area is that they are described as earthen troughs, rather than sloping stone platforms.”</p>
<p>Charlie Ogata,⁷ Queen Emma Hawaiian Civic Club</p>	<p>Mr. Ogata provided the following information about the area and heiau:</p> <p>Mr. Ogata’s family moved to the Pikoiloa neighborhood in the late 1970s. His son, Kalani, and other kids from the neighborhood used to explore the mountainside behind the homes. His son reported finding a “pile of rocks” or rock wall in the understory. He took his father to the site, and later one of his teachers who expressed interest in seeing the site after Mr. Ogata’s son wrote an essay about the <i>heiau</i> for summer school. The teacher (Dr. Donald Kilolani Mitchell of</p>

⁷ Mr. Ogata had moved from the area at the time the 2007 interview occurred.

Name and Affiliation	Summary
<p>Charlie Ogata (continued)</p>	<p>Kamehameha Schools) having read about the Hawaiian sites of the area, ascertained the authenticity of the Kāwa’ewa’e Heiau. Mr. Ogata recalls that this (re)discovery of the <i>heiau</i> was about 1978. “Do you remember in the 1970s there was a Hawaiian Renaissance? I became very interested in Hawaiian culture and language and started taking classes at the university.” Mr. Ogata became a devoted student of Hawaiian history and pre-history, and in particular, the Kāwa’ewa’e Heiau. His model (Figure 24) and illustrations (Figure 25) depict his re-creation of how the <i>heiau</i> might have looked and functioned in ancient Hawaiian times.</p> <p>“When my son found the <i>heiau</i> it was all grown over. I would come up here and cut the trees with my handsaw to clear the area. Eventually, I got help from others...with power tools.” Mr. Ogata spoke of the many years of volunteerism that went into the restoration of the <i>heiau</i>. The history of the <i>heiau</i> and the public effort to restore and protect the <i>heiau</i> is provided in a presentation Mr. Ogata made in 1986 to various organizations (Figure 26). Mr. Ogata learned that the Kawa’ewa’e Heiau was a <i>luakini</i>, a <i>heiau</i> of the largest class used for prayer and sacrificial offerings. According to his readings, the <i>heiau</i> was built by <i>menehune</i> (a legendary race of small people who worked at night, building temples, etc.) and rebuilt by Kahiki’ula for his brother ‘Olopana who was the the <i>ali’i nui</i> (high chief) of Ko’olaupoko.</p> <p>“‘Lua’ means ‘hole’ and ‘kini’ means ‘40,000’ or ‘many.’” He explained that the <i>lua</i>, holes or pits found inside and outside the <i>heiau</i>, were used to bury the bones of those sacrificed (Figures 27 and 28). “Human sacrifices were usually done outside of the <i>heiau</i>. [The priests] didn’t like blood in the <i>heiau</i> (blood was considered unclean) so they made the sacrifice on the big rocks outside of the <i>heiau</i>. You see that there are big rocks around the <i>heiau</i>? These were probably used to <i>hana make</i> (kill) the person or animal being sacrificed and then they were cleaned and placed on the <i>lele</i> platform in the <i>heiau</i>. The human</p>

Name and Affiliation	Summary
<p>Charlie Ogata (continued)</p>	<p>sacrifices were usually law breakers...someone who had broken a <i>kapu</i>, or enemy warriors. But sometimes people would be tricked into breaking a <i>kapu</i>. They [the priests] would call people out after dark when a <i>kapu</i> was on and then catch them for sacrifice. Or sometimes, if they couldn't find a human to sacrifice, they would use an <i>ulua</i> [certain species of crevalle, jack, or pompano fish] as a substitute probably because the name <i>ulua</i> also means 'man'. Sometimes when they made a human sacrifice they would put a <i>maunu'ia</i> [fish hook] in the person's mouth."</p> <p>Walking up to the <i>heiau</i> Mr. Ogata noted that some <i>hula hālau</i> often come to the area to collect <i>hula</i> ferns. He pointed out a <i>koa</i> tree (<i>Acacia koa</i>) beside the trail he planted to commemorate his son's wedding. He also planted a <i>kukui</i> (<i>Aleurites moluccana</i>) and a coconut tree at the north end of the <i>heiau</i>, near what is now the entrance. "I noticed that there was no opening in the rock walls for an entrance. Well there is an opening now but I found out that this was made [more recently] by ranchers who used the <i>heiau</i> as a cattle pen. I asked myself, 'how did the ancients get into the <i>heiau</i>?', and saw the pile of rocks [pointing to rocks on the northeast side of the <i>heiau</i>] I think was used as a ramp up to the wall of the <i>heiau</i>" (Figure 29). Entering from the north opening of the <i>heiau</i>, Mr. Ogata explained that there were three levels to a <i>lananu'u mamao</i> (oracle tower): the <i>lana</i> or the lowest platform of the oracle tower where offerings were placed; the <i>nu'u</i> or the second platform in the tower; and, the <i>mamao</i> or the highest platform of the <i>lananu'u mamao</i>, where the high priest conducted services (Figures 32 to 32). He believes that the rocks that still carpet the upper, north end of the <i>heiau</i> are remnants of the rock platform and noted that the <i>tī</i> or <i>kī</i> (<i>Cordyline terminalis</i>) plants scattered in and around the <i>heiau</i> were there when Mr. Ogata and his son first visited the site. Walking over the west wall of the <i>heiau</i>, he pointed to a flat grassy area over the wall he believes may have been the site of the Hale o Papa, or the women's</p>

Name and Affiliation	Summary
<p>Charlie Ogata (continued)</p>	<p><i>heiau</i> (Figures 33 and 34). Moving to the center of the <i>heiau</i>, Mr. Ogata pointed out the lines of rocks that formed four terraces across the width of the <i>heiau</i> (Figure 24). He wonders if one purpose the rock terraces may have served was as a stadium for watching sledding competitions on the ridge directly south of the <i>heiau</i>, “After all, a <i>heiau</i> is only sacred during certain times of the year”. Looking towards the ridge (Figure 35), he explained how Hawaiians created <i>hōlua</i> (sled course) by making a rock track, covering it with grasses, and wetting it down for speed. At the lower (south) end of the <i>heiau</i>, Mr. Ogata pointed out the <i>lua</i> adding that he has found another 2 <i>lua</i> outside of the <i>heiau</i> and believes there are more. He concluded his discussion of the features inside the <i>heiau</i> with a brief telling of the <i>mo’olelo</i> about Kamupua’a’s chicken thievery and subsequent capture and escape from Olopana’s attempt to sacrifice him at the Kawa’ewa’e Heiau (see Section 3).</p> <p>Mr. Ogata mentioned, and in some cases identified for CSH, a number of sites outside of the Kāwa’ewa’e Heiau and stated his regret that a more detailed archaeological survey has yet to be done on the features immediately adjacent, or in proximity, to the <i>heiau</i>. In addition to finding at least one other <i>lua</i> for the disposal of sacrificial bones (located approximately 25 yards north and <i>mauka</i> of the <i>heiau</i>), he found: a stone alignment extending about 50 yards on the north side of the <i>heiau</i>; a site that may be a human burial also north of the <i>heiau</i>; and what he thinks may be stairs or a stone pathway leading up to the <i>heiau</i> on the north and west/<i>makai</i> side (Figures 36 and 37) and a rectangular rock enclosure (Figure 38). He wonders if the latter was a burial site or a <i>kuahu</i> (altar). Mr. Ogata stressed that these sites should be viewed in relationship to the Kāwa’ewa’e Heiau. Also, the Kāwa’ewa’e Heiau should be considered in relationship to the other four <i>heiau</i> built by or for ‘Olopana in the Ko’olaupoko area. Mr. Ogata theorizes that there is meaning, perhaps astrological or astronomical,</p>

Name and Affiliation	Summary
<p>Charlie Ogata (continued)</p>	<p>to the alignment of the <i>heiau</i> around Ko‘olaupoko and wondered aloud if anybody has explored the spatial relationships of these <i>heiau</i>?</p> <p>Mr. Ogata spoke of the threat to the Kāwa‘ewa‘e Heiau since the early 1800s when Kamehameha I died (1819), the American Protestant missionaries first started arriving in Hawai‘i (1820) and began Christianizing Hawaiians, and Kamehameha II (Liholiho) ascended the throne (1819) and discontinued the <i>kapu</i> system. Referring to Kamehameha I’s wife, the mother of Liholiho, and Queen Ka‘ahumanu, Mr. Ogata explained “Ka‘ahumanu said destroy the <i>heiau</i>!” The Kāwa‘ewa‘e Heiau was not destroyed, but was abandoned by Christianized Hawaiians who, in Mr. Ogata’s words, “became very superstitious and fearful of the ancient sites”. Mr. Ogata also mentioned the general disregard for Hawaiian cultural properties until the late 1970s when historic preservation laws were legislated in Hawai‘i (Figure 26). Even so, many sites were destroyed because they were not recognized as significant. “There was another <i>heiau</i> built by ‘Olopana where the [HMP] cemetery is now. The <i>heiau</i> was taken apart to build the cemetery and some of the rocks from the <i>heiau</i> were possibly used to construct a waterfall.” Mr. Ogata continued, “I know [nowadays] they won’t touch the <i>heiau</i>. But I am worried about the other sites that may not be considered significant to the cemetery [HMP]. Are they going to destroy the <i>hōlua</i> slide, the <i>ahu</i>...? Not too many people know about the <i>heiau</i> anymore...I’d like to see the archaeological sites excavated...and to [locate] and excavate all of the <i>lua</i>.”</p> <p>Mr. Ogata commented that he hopes that the conservation land will not be developed “especially where they want to build the subdivision” and expressed cultural concerns regarding the Kawa‘ewa‘e Heiau and surrounding project area and offered the following recommendations:</p> <ol style="list-style-type: none"> 1. An archaeology inventory survey of sites associated with the

Name and Affiliation	Summary
<p>Charlie Ogata (continued)</p>	<p>Kāwa‘ewa‘e Heiau, particularly rock features immediately adjacent to or in proximity to the Kāwa‘ewa‘e Heiau that may not have been covered in earlier works, should be conducted. The sites should be excavated (especially where <i>lua</i> are found) and preserved.</p> <p>2. Other cultural properties in the project area, such as the <i>hōlua</i> (sled course) on the ridge line immediately south of the Kawa‘ewa‘e Heiau, should be preserved.</p> <p>3. On-going cultural practices, such as the gathering of <i>hula</i> and medicinal plants, should be recognized and accommodated.</p> <p>4. Hawaiians and people of Kāne‘ohe gather and voice their opinions about the proposed project in a public hearing. Site should be verified to see if it is (still) on the state and/or federal register.</p>
<p>Kimo Steinwascher, Kāne‘ohe Ranch Management</p>	<p>Noted that there was no archival information on the area from the ranch.</p>
<p>Susan Wada, Queen Lili‘uokalani Children’s Center</p>	<p>No response</p>
<p>Jim Waddington, Sierra Club</p>	<p>In a 2007 email Mr. Waddington wrote:</p> <p>“Sierra Club has not done regular service trips to Kawaewae Heiau for a couple of years, so I haven't been to the site in quite some time. The attachments to your email, however, are disturbing... especially the map which shows a road almost adjacent to one corner of the heiau. The upkeep of the heiau has been adopted by the Queen Emma Hawaiian Civic Club (QEHCC)... Sierra Club just provided some manpower for them. Two individuals who should definitely be contacted regarding the proposal and who could address your</p>

Name and Affiliation	Summary
<p>Jim Waddington (continued)</p>	<p>questions more aptly than I would be Cassina Waterman, president of QEHCC, and Charlie Ogata, a member of QEHCC who spear-headed the heiau's restoration.”</p>
<p>Casina K. Waterman, Queen Emma Hawaiian Civic Club</p>	<p>In 2007, Ms. Waterman said to CSH:</p> <p>“The QEHCC goes to mālama [caretake] the Kawa‘ewa‘e Heiau about 3 to 4 times a year. Charlie Ogata was our kahu [caretaker] but he is in his 90s now. There have been cultural practices up there and there are archaeological sites back there. Hula hālau [hula groups] go and collect plants in the area. The group never got to GPS by the luakini [large heiau where ruling chiefs prayed and human sacrifices were offered]. There were sacrifices there. There could be iwi [human remains, bones] in the area. If you look at the dimensions of the heiau, it is a pretty large heiau luakini. On the ‘Ewa side of the heiau there is a stone path and possibly a few homes [archaeological habitation sites]. Many years ago there was a family that used the heiau for a cattle pen (can’t remember their name, maybe it was the Medieros family). There would be an impact if [the proposed project] comes close to the heiau. I am concerned that there are good buffer zones around the heiau and around the <u>other</u> sites. We need to mālama [all the sites]. A 100 foot buffer zone is not enough for the heiau. Would the buffer zone be 100 feet from [outside or inside] the walls of the heiau or from the center? One part of the heiau is higher. I think the north wall is 17 feet...16 feet on the Kailua side. One part is flat and goes down and then comes back up. At the boundary of one of the walls there is a terrace and houses [habitation sites] and not too far beyond that is where Charlie’s property was. You can look up the dimensions of the heiau... The weather has changed over the years. There used to be more moisture. There is a native bird that is an endangered species that lives in the area. I’m not sure of name. Have you seen the old drawings of the Ko‘olau Bluff [project]? It was a [subdivision] with million dollar</p>

Name and Affiliation	Summary
Casina K. Waterman (continued)	homes done in the late 1980s. The community stopped that because they were scared of run-off and other logistical [problems].”

1. Additional Comments

CSH also interviewed an individual from Ko’olaupoko Civic Club with concerns about the project. The individual asked to remain anonymous, so there was no way of following up with that individual for this project. Honua Consulting presented to the Ko’olaupoko Hawaiian Civic Club in 2017 and the Club voted to support the new project. Additionally, new interviews were conduct with club leadership (see below).

CSH also conducted an interview with an individual who identified his/herself as a Kāne’ohe Kama’āina and Hula Practitioner who was a member with Hālau Hula ‘O Nāpunahleonāpua. Again, as the individual asked to be anonymous, there was no means of follow-up. Honua Consulting alternatively interviewed the Kumu Hula of Hālau Hula ‘O Nāpunahleonāpua, Rich Padrina and his Kumu, Chinky Mahoe.

Finally, CSH interviewed an individual identified as a Kāne’ohe Kama’āina and Kumu Hula. Yet, in the description of the individual, s/he is referred to as a “hula instructor”. This conflict of terms is important to highlight, because a Kumu Hula is much more than simply a hula instructor. Anyone can be a hula instructor. Yet, to become a Kumu Hula, it implies that one has undergone years of vigorous cultural training under the supervision of a cultural master. The individual provided the following comment:

We feel that it is important for Hawaiian cultural practices that this area is preserved. We collect *laua’e* [in and near the petition area]. *Laua’e* is picked in honor of Laka, the god of *hula*. This area is important for *laua’e*: 1) although you can find *laua’e* throughout the island, this is one of the few places you can find it in abundance. If you need *lei(s)* for 25 people, you can go to this one place [rather than having to go to more than one site to pick enough] and 2) the quality of the *laua’e* ferns are better – the ferns are mature, darker green in color, firm, and have no bumps [spores], preferred for *hula lei* and other

adornments.

It is challenging to address these concerns without additional information and context. Coupled with the additional information from other Kumu Hula completed for this CIA, this information has better context.

B. New Ethnographies

Based on expertise and recommendations from members of the community and in an effort to focus on Native Hawaiian cultural masters with whom CSH was unable to consult in 2007, 11 individuals were successfully interviewed or re-interviewed for this study. The primary focus was to identify and interview cultural practitioners, specifically Kumu Hula, who accessed or have knowledge regarding the area’s resources. The goal being to ensure that extensive and thorough information is being gathered to give the state enough material to do a proper *Ka Pa’akai* analysis and meet their obligations under that decision. The following table summarizes the interviewees and their affiliations (Table 9).

Table 9. Ethnographies of New Interviewees

Name	Affiliation	Interviewed
Alice Hewett	President, Ko’olaupoko Hawaiian Civic Club	February 19, 2018
Leialoha “Rocky” Kaluhiwa	Practitioner / Member Ko’olaupoko Hawaiian Civic Club	February 19, 2018
Mahealani Cypher	Practitioner / Member Ko’olaupoko Hawaiian Civic Club	February 19, 2018
Mae Kamamalu Klein	Kumu Hula	January 18, 2018
Keolalaulani Dalire	Kumu Hula	January 23, 2018
Kauai Dalire	Kumu Hula	January 12, 2018
Howell “Chinky” Mahoe Jr.	Kumu Hula	January 12, 2018
Richard Pedrina	Kumu Hula	January 11, 2018
Anthony Kawenaulaokala Mann	Kumu Hula	January 10, 2018
Kawaikapuokalani Hewett	Lehua Hula	February 6, 2018
Dr. Lianne Chang	Practitioner	March 7, 2018

Additionally, an advertisement was placed in the Office of Hawaiian Affairs's *Ka Wai Ola*, in which Honua Consulting requested information about possible resources in the project area. A copy of the advertisement is pictured below:

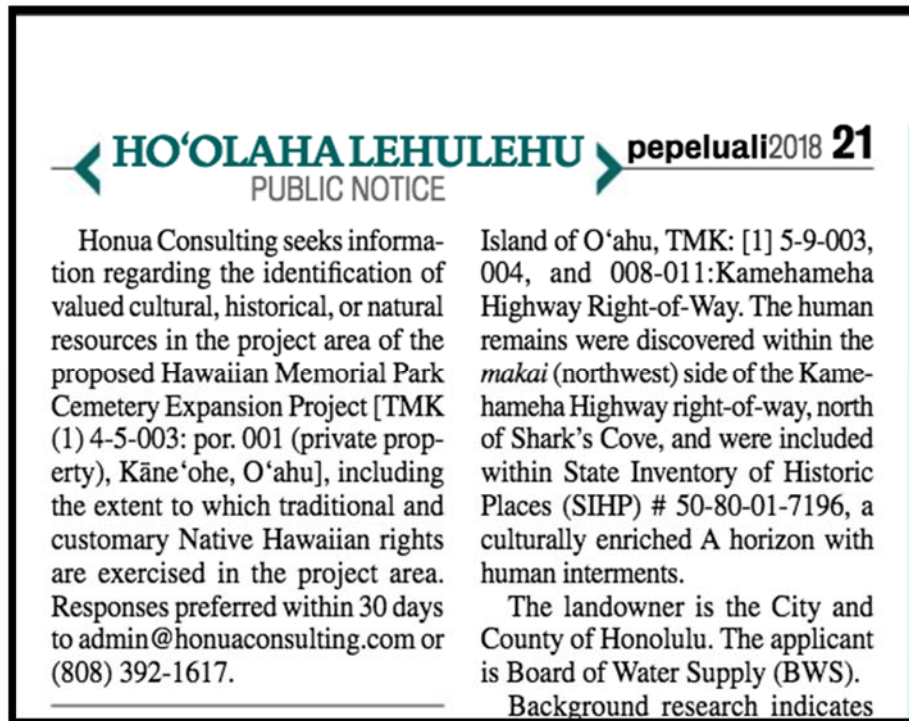


Figure 10. Advertisement placed in OHA's *Ka Wai Ola* requesting public input.

C. Interviews and Consultations

In preparation for project plans in parcel TMK [1] 4-5-033:001, Honua Consulting was tasked with interviewing individuals with lineal and cultural ties to the ahupua'a of Kāne'ohe and its surrounding area with regard to regional biocultural resources, potential impact to these biocultural resources, and mitigation measures to minimize and/or avoid these impacts.

A summary of each interview has been completed and has been included in Honua Consulting's DRAFT Cultural Impact Assessment report. The statements were further considered in the assessment analyses. The CIA is part of the full EIS.

1. Interview with Alice Pualeilani Hewett

Date of interview: February 19, 2018

Interviewee: Alice Pualeilani Hewett

Interviewer: Trisha Kehaulani Watson

a. Biography

Alice Pualeilani Hewett was born and raised in He'eia, O'ahu and currently resides on Nāmoku Street, near the project area. Ms. Hewett is widely known throughout the Windward O'ahu community for her many contributions and leadership of its people; she was recognized by the Kāne'ohe Rotary Club with the Paul Harris Fellow Award in 2009, which is an honor bestowed upon a Kāne'ohe resident who best exemplifies the giving spirit within the community. Ms. Hewett worked with the city Department of Parks and Recreation for two decades to help keep local parks such as 'Āhuimanu, Kahalu'u and Kualoa clean and she also served on the Clean Water Act Commission under City Councilwoman Barbara Marshall. Ms. Hewett's volunteer work with various sporting leagues for children led to the Honolulu City Council dedicating the He'eia Neighborhood Park in her name. Now retired, Ms. Hewett serves as the president of the Ko'olaupoko Hawaiian Civic Club.

b. General Discussion

When asked about her memories associated with the project area, Ms. Hewett recounted the stories that she heard from her kupuna about the Nightmarchers that called to the children of the area to join them. Ms. Hewett's mother forbid her and her siblings from entering the site because heiau are not "playgrounds," and Ms. Hewett has continued to avoid heiau around the island for this very reason. Ms. Hewett recalled seeing a pair of eyes looking out at her from the darkness within the forests surrounding the project area. Ms. Hewett also stated that her grandchildren would occasionally have paintball fights in the area surrounding the project area, but she reprimanded and forbid them from doing it again.

Ms. Hewett shared information regarding the dairy farms located in the Kāne'ohe ahupua'a. The dairies like Santos, Souza, and Freitas were some of the few that she recalled. A cousin of Ms. Hewett eventually married the son of the Santos Dairy owner. Ms. Hewett also recalled

the presence of an “army camp” near the project area, which she stated was a major contributor to the maintenance of the vegetation of the area.

Ms. Hewett did not classify herself as a cultural practitioner, because she does not identify with the “practitioner” portion of the title. Ms. Hewett defined a cultural practitioner as someone who must have a deep understanding of culture before teaching it to others and she emphasized that this person should be given their knowledge from ancestors. Ms. Hewett stated that she does not believe many people on the Islands who classify themselves as cultural practitioners actually deserve the title.

Ms. Hewett stated that the project area needs to be cleared and cleaned, because it has been completely overrun by invasive plant species, such as *Albizia*.

When Ms. Hewett would frequent the area, she would enter through Līpalu Street because it had the best access, but she stated that she has not been able to go to the site in a long time due to injury.

c. Biocultural Resources

When asked about the cultural resources of the project area, Ms. Hewett described the Kāwa’ewa’e heiau, laua’e, tī, and a flower that was used for medical practices, although she could not recall the name of this flower. In regard to traditions and customs associated with the project area, Ms. Hewett stated that practitioners utilize the local flora for hula and medicine.

d. Impacts

Ms. Hewett did not know of any resources, traditions, or customs that would be impacted by this project.

e. Mitigation Measures

Ms. Hewett stated that the planners need to ensure that the area is safe for entry and use, because she did not want anyone to get hurt while there. She also stated that people need to know what they are doing when they go there, because the terrain can be very dangerous.

2. Interview with Leialoha “Rocky” Kaluhiwa and Mahelani Cypher

Date of interview: February 19, 2018

Interviewees: Leialoha “Rocky” Kaluhiwa and Mahealani Cypher

Interviewer: Trisha Kehaulani Watson

a. Biographies

Leialoha “Rocky” Kaluhiwa was born and raised in He‘eia, the ahupua‘a in which her family has resided for over 200 years. Ms. Kaluhiwa is an advocate and cultural practitioner of Native Hawaiian history and mo‘olelo that has been passed from her kūpuna. Ms. Kaluhiwa currently serves as the first Vice-President of the Ko‘olaupoko Hawaiian Civic Club.

Mahelani Cypher was born and raised in Kāne‘ohe, Ko‘olaupoko, O‘ahu, where she continues to reside today. Ms. Cypher defines her profession as “satisfying the calling of her kūpuna to do what she can.” Ms. Cypher is a cultural practitioner, specifically of Kāne‘ohe, with a focus on mo‘olelo and history, all of which was learned from her kūpuna. Ms. Cypher is a longtime member of the Ko‘olaupoko Hawaiian Civic Club and formerly served as the club’s president.

b. General Discussion

When asked about the memories associated with the project area, Ms. Kaluhiwa recounted that her husband worked with Gunners’ Dairy, which provided free homes for its employees. Her husband would state that he felt vibes from the heiau in the area and would advise the employers to keep the cattle and horses away from the area; he could identify the rocks that were once a part of the heiau. Ms. Kaluhiwa’s husband also pointed out to her that the peaks of the mountains surrounding them should be noted as being connected to the heiau because everything is connected. Ms. Kaluhiwa also noted that if one looks at the area, they will notice that it is a perfect triangle. Ms. Cypher recounted the numerous times that she would go the area to help with the cleaning and clearing in the 1990s, a job which was taken up by the Ko‘olaupoko Civic club for many years. She recalled walking the site with Hal Hammatt years ago and spotting flat areas that Dr. Hammatt notes as significant, while she did not feel the cultural or spiritual significance of those particular areas. The sites which she identified as

significant were not noted by Dr. Hammatt likewise due to lack of midden deposits. Ms. Cypher recalled feeling disappointment after this encounter.

When asked what defines a cultural practitioner, Ms. Kaluhiwa stated that it is a person knowledgeable in their own moku and ahupua'a and learn the skills of their kūpuna. She shared the story that her grandmother was once Haiku's kahuna lā'au lapa'au, who are individuals that grow herbs and utilize them for medical practices. Ms. Kaluhiwa stated that learning from individuals like this is what makes a true practitioner. Ms. Cypher shared that Kawaikapu Hewett once stated that a cultural practitioner is someone that the community recognizes as a practitioner for that area, a statement with which she also identifies. She furthered this statement by saying that cultural practitioners have their ancestors speaking through them and it is impossible to be a practitioner without that genealogy.

Ms. Kaluhiwa shared that she has a spiritual connection with a bird that resides in the project area, partly due to the fact that her 'aumakua are birds. Ms. Kaluhiwa communicates with the birds, where she whistles to them and they respond in kind.

When prompted about the access into the project area, Ms. Kaluhiwa shared that she first entered the site when was young, and she rode into the area on horseback. She would enter through the cemetery before it was a cemetery, when there was no traffic or streetlights. Ms. Cypher shared that she first entered the site in the mid 1990s and would access the site through Līpalu Street because there is no other access point. She stated that she would not like to go through the neighborhood anymore. Ms. Cypher shared the story that a group of planners wanted her to give them a tour of the historic sites of Kāne'ohe and she asked for them all to meet at Līpalu Street; the planners arrived on a large tour bus that blocked access on the residential street and remained running while the planners were touring the sites. The resident became irate and forced the bus to move to Nāmoku Street and the bus was subsequently forced to move to Mokulele Street. Ms. Cypher recalled that she has tried to be sensitive to the community, especially after these events.

Ms. Cypher shared the story about a circle of stones where people could once sit in ancient times while waiting to make appeals to the chief. She stated that the stones have since been

moved around because they are no longer in a circle and they were located near Līpalu Street at the exit of a trail.

c. Biocultural Resources

With regards to the cultural resources in the project area, Ms. Cypher identified laua'e and the complex of heiau as particularly significant; she stated that the mana of Kāwa'ewa'e is very strong. When asked about the natural resources of the project area with cultural significance, Ms. Cypher stated that there are many plant species used for cultural practices contained within the project area, including laua'e and coconut trees.

When asked about the traditions and customs associated with the project area, Ms. Cypher discussed the hōlua slides that can be seen from the luakini heiau. She stated that she could imagine 'Olopana and his entourage enjoying the slide with the tī leaves of the area. She has no knowledge of any hula practiced in the area, but is aware of the hula practitioners gathering laua'e and plants for their performances.

d. Impacts

When asked about the resources that could be impacted by this project, Ms. Cypher shared that there is a stream bed that she is worried about located in the project area. Ms. Cypher also had concerns about whether continued cultural access would be allowed, which could impact the traditions and customs that utilize the project area.

e. Mitigation Measures

Ms. Cypher was adamant that continued consultation with Native Hawaiians, especially those who regularly access the area for cultural purposes, was crucial for this project. Ms. Cypher also asked that the planners look from the cemetery side of the heiau to see the ridges in the mountains and understand the connection and planning that went into building this site.

3. Interview with Mae Kamāmalu Klein

Date of interview: January 18, 2018

Interviewee: Mae Kamāmalu Klein

Interviewer: Matthew Sproat

a. Biography

Mae Kamāmalu Klein is a retired Kumu Hula currently residing at the Queen Emma Gardens. She was born and raised in Honolulu and lived in Kāneʻohe from 1956-2012. Ms. Klein’s hālau, Kukalehuaikaohu (The Lehua that Stands in the Mist), was located in Kāneʻohe where she trained students of the late hula master Margaret Maiki Souza Aiu Lake to become kumu hula. Ms. Klein is a cultural practitioner in the art of hula who was trained to become a kumu hula (a process known as ‘ūniki) under Kumu Hula Maiki Lake in August of 1973.

b. General Discussion

Ms. Klein defined a cultural practitioner as someone “who eats, drinks and sleeps hula,” but also educates their students in the art of gathering and constructing lei. She identified herself as one such person.

Ms. Klein shared that her interaction with the project area were very peaceful and tranquil, as she had visited the area when it was relatively unknown and unoccupied. When asked about cultural or natural resources within the project area, Ms. Klein shared that she has no knowledge of any such resources aside from vegetation like palaʻā that is used in hula. Ms. Klein also disclosed that she was unaware of any traditions or customs that take place within the project area. Her memories of the project area before HMP’s construction was an abundance of vegetation and she did not reside in the area during the presence of the dairies.

Ms. Klein shared that the project area was once “wild” and it was a prime location to gather plants and materials for hula and lei, but it was imperative for those who gathered to know the correct practices to do so. She disclosed that she had not been to the area since the 1950s and 1960s, but she would enter the project area approximately once a month when she lived there.

Ms. Klein did not know of any stories associated with the project area. She recommended that Mahelani Cypher should be interviewed, because she knows many stories regarding Kāneʻohe and possibly this particular area.

c. Biocultural Resources

The only resources that Ms. Klein could recall within the project area included hula plants such as palaʻā; she did not recall any other cultural and/or natural resources within this area.

d. Impacts

Ms. Klein stated that she did not know of any resources, traditions, or customs that would be impacted by this project.

e. Mitigation Measures

Ms. Klein did not state any particular recommendations for best management practices, but she did state that there should be preservation once the project has been completed. She questioned exactly how preservation would be achieved of the Kāwaʻewaʻe Heiau and the hula plants and how the gathering rights would be controlled.

4. Interview with Keolalaulani Dalire

Date of interview: January 23, 2018

Interviewee: Keolalaulani Dalire

Interviewer: Matthew Sproat

a. Biography

Keolalaulani Dalire is the third and youngest daughter of Kumu Hula Aloha Dalire and she has been the Kumu Hula of Keolalaulani Hālau 'Ōlapa O Laka since her mother's passing in 2014. Ms. Dalire was born and raised on the island of O'ahu in the ahupua'a of He'eia, where she still resides. Ms. Dalire became Miss Aloha Hula in 1999 at the age of 18 as a senior at Kamehameha Schools. Ms. Dalire began teaching hula alongside her mother when she was 10 years old and advanced her teaching from basic hula steps to choreographing for the competition level classes. Her 'ūniki took place on August 28, 2008 under Kumu Hula Aloha Dalire; she has continued her mother's teachings today.

b. General Discussion

Ms. Dalire stated that she does not have many memories associated with the project area specifically, but she recalls visiting Souzas Dairy Park as a child, which is near the area. The dairy farms predated her time period so she does not have memories of them, but she can remember its prominence. Ms. Dalire does not believe that she has any personal association with the project area.

Ms. Dalire defined a cultural practitioner with the term "kuleana." She elaborated that from an early age, these practitioners were taught and learned that certain aspects of life are always around them and it chooses them, not the other way around. Ms. Dalire has identified herself as a cultural practitioner in the art of hula. Ms. Dalire also provided her ancestry and declared that her ancestors were some of the original settlers of Kāne'ohe from the Komomua line.

Ms. Dalire shared that she was unaware that Kāwa'ewa'e Heiau was a luakini, and she was unsure about whether she wanted it protected because of the human sacrifices that occurred

within the structure.

Ms. Dalire stated that she did not enter the project area but had lived down the street from its location for her entire life. She did not have any stories to share regarding the project area. Ms. Dalire also shared that she did not know of any cultural practitioners currently using the area, but she recommended interviewing Tracie and Keawe Lopes, who have ties to the Kāneʻohe area.

c. Biocultural Resources

Ms. Dalire was unaware of any cultural resources or customs/traditions that are located within the project area or are otherwise associated with the project area. When asked about natural resources, she recalled that there were three rivers within this area in earlier history.

d. Impacts

Ms. Dalire was unaware of any resources, traditions, or customs that would be impacted by this project.

e. Mitigation Measures

When asked about any recommendations or conditions for best management practices, Ms. Dalire recommended that the land on which Kāwaʻewaʻe heiau sits should be donated to the people of the land. She stated that those who can identify sites as culturally significant to them should be given the rights to that land so that they can give their approval for the desecration of the land surrounding these sites.

5. Interview with Kauai Dalire

Date of interview: January 12, 2018

Interviewee: Kauai Dalire

Interviewers: Matthew Sproat

a. Biography

Kauai Dalire is the second daughter of the late Kumu Hula Aloha Dalire and was born and raised in Kāneʻohe, where she still resides. Kauai Dalire earned the title of Miss Aloha Hula in 1992 at the Annual Merrie Monarch Festival. Ms. Dalire has followed in her mother's footsteps by becoming a Kumu Hula and cultural practitioner of hula, culture, language and arts; her 'ūniki took place under Aloha Dalire in 2009. Ms. Dalire is the Kumu Hula to Hālau Ka Lihilihilehua 'O Hōpoe Kuikanani, which has locations in Hawai'i, Mexico, Australia, Arizona, Seattle, California, and Japan (Shibuya and Okinawa). Kauai Dalire, along with Mailani Makainai, founded Hā Enterprises, which specializes in artist management and production while continuing to perpetuate Hawaiian music and culture around the world.

b. General Discussion

Ms. Dalire defined a cultural practitioner as someone who is responsible for preserving and perpetuating the way of their people and she identifies as one such person. She identified her cultural lineage and genealogy as stemming from the Komomua line.

Ms. Dalire shared that she believes Kāneʻohe has already been overdeveloped prior to this current project and she is against further development. She stated that Kāneʻohe is known for its lush green environment and the relationships of the families with their land. Developers have already cut away the mountains, polluted the bays, and depleted the natural resources; she would prefer if development ceased and her neighborhood was left alone.

c. Biocultural Resources

Ms. Dalire did not identify any cultural resources within the project area, but she stated that land, vegetation, and plants that specifically flourish in the Kāneʻohe area were natural resources within the project area that have cultural significance. Ms. Dalire stated that the

destruction of the land and plants as well as strain on resources have been customary within the project area.

d. Impacts

The water, land, and plants were identified by Ms. Dalire as being possible impacts of this project. She also identified gathering and meditation as traditions/customs that would be impacted by the development of this area.

e. Mitigation Measures

Ms. Dalire's recommendation for avoiding the impacts of this project would be to put an end to it and to not develop the area whatsoever.

6. Interview with Howell “Chinky” Māhoe, Jr.

Date of interview: January 12, 2018

Interviewee: Howell “Chinky” Māhoe, Jr.

Interviewer: Matthew Sproat

a. Biography

Chinky Māhoe was born in Honolulu and raised in Kailua, where he currently resides. Mr. Māhoe is the Kumu Hula of Hālau Kawaili‘ulā, which is also based in Kailua. Mr. Māhoe is a cultural practitioner in the art of hula, Hawaiian culture, crafts (both ancient and modern), mele, oli, and the history that comes with these practices. Mr. Māhoe is a fourth-generation descendant of Kailua. His ‘ūniki took place in November of 1980 under the direction of Kumu Hula Darrell ‘Ihi‘ihilauākea Lupenui.

b. General Discussion

Mr. Māhoe shared that his definition of a cultural practitioner is one who continues to do and teach the lifestyle of the past, which is learned from kūpuna. Children are taught to pa‘i ‘ai, fish, throw/patch nets, cook, etc. These practices are not forgotten by cultural practitioners, who continue to live this lifestyle and then teach what they have learned and lived.

Mr. Māhoe shared that he and his hālau would gather laua‘e from the location where the Veteran’s Cemetery is now, but he no longer goes to this area. He and his hālau gather laua‘e from patches to the left of the Veteran’s Cemetery and they access this area by cutting through the neighborhood on Līpalu Street. They hike into the valley together and frequent this area roughly three to four times a year for gathering.

Mr. Māhoe stated that a lack of care for resources will result in their loss. He explained that across the highway from HMP are two golf courses that stand on the ground which was once the largest hala grove. He expressed concern and outrage that hala, which is still used for cultural practices and crafts, was so easily removed from this location for “entertainment purposes.”

Mr. Māhoe also shared that he has many family buried in HMP and he has noticed that the park seems too large for the staff to maintain and upkeep. Mr. Māhoe stated that expansion always seems to be the answer to problems, rather than searching for different solutions. He went on to state that land and water are resources and continued expansion has relegated these resources as unimportant for preservation.

c. Biocultural Resources

Mr. Māhoe did not list any cultural or natural resources in or near the project area.

d. Impacts

Mr. Māhoe did not list any resources that would be impacted by this project.

e. Mitigation Measures

Although Mr. Māhoe does not include any recommendations for best management practices, he expressed concerns about continuing expansion to the cemetery, questioning when enough was enough.

7. Interview with Richard Pedrina

Date of interview: January 11, 2018

Interviewee: Richard Pedrina

Interviewer: Matthew Sproat

a. Biography

Richard Pedrina is a Kumu Hula for Hālau Hula 'O Nāpunahēleonāpua, which has studios located in Kāne'ōhe, Hilo, Las Vegas, Japan, Wisconsin and Minnesota. Mr. Pedrina was born and raised in Maunawili, Kailua, O'ahu, but he now resides in Papakōlea, Punchbowl. Mr. Pedrina identifies as a cultural practitioner of hula and Hawaiian culture. He received his 'ūniki from Master Kumu Hula Kimo Alama-Keaulana and from the hā or blessings of Kumu Hula Chinky Māhoe. Kumu Hula George Kananiakeakua Holokai served as Mr. Pedrina's third kumu, from whom he learned a great deal of his knowledge and experience in oli and use of implements.

b. General Discussion

Mr. Pedrina defined a cultural practitioner as someone that has knowledge of areas or certain things that they malama and pass on; they study and research and whatever they have learned for their kumu is passed on from generation to generation. He stated that it is important to keep that information within a lineage.

Mr. Pedrina explained that his connection with the project area started in 1983, when he learned about the laua'e and hula plants through his Kumu Chinky Māhoe; they would gather laua'e for performances from this location. Mr. Pedrina's hālau was founded in 1993 and he continues Mr. Māhoe's practice by gathering from that location today, most recently in December of 2017. Mr. Pedrina and his hālau enter the grounds through Līpalu Street because it has the best access, although he admitted that it is somewhat difficult to transverse during rainy days because of mud.

Mr. Pedrina stated that overgrown and invasive plants have overtaken the area, which makes it difficult for native plants like laua'e and palapalai to flourish as they once did. He wants to

see an abundance of these plant species again.

Mr. Pedrina stated that there are many stories associated with the project area that he learned through the Ko'olaupoko Civic Club. Mahealani Cypher had taken him them and shared the important stories, but he could not recall any of them off the top of his head.

Mr. Pedrina explained that he believes Kumu Hula Chinky Māhoe and Kumu Hula Kawaikapu Hewett utilize the area as cultural practitioners. He recommended that Hōkū Zuttermeister be interviewed because he lived near the project area.

c. Biocultural Resources

Mr. Pedrina stated that he has encountered numerous natural resources with cultural significance such as palapalai and pala'ā, he'e, and niu, among others; he clarified that his main resource taken and cared for from that area is laua'e. Mr. Pedrina also identified the Kāwa'ewa'e Heiau as an important resource in the area. He could not identify any traditions or customs that take place within the project area or are otherwise associated with the project area.

d. Impacts

Mr. Pedrina explains that whenever any resources are taken from the land, there is an impact. He is unsure exactly which resources would be impacted, but he stated that it is most likely laua'e because of its abundance. He explained that there would not be any impacts to traditions and customs as long as there is access to the native plants and the heiau, which has significance to culture and hula.

e. Mitigation Measures

Mr. Pedrina recommended that there be a committee with the kupuna who know about the land, and with their approval, the rest of the people in the community would trust the project. He wants to see a group that agrees upon and works hand and hand with HMP on the project.

8. Interview with Anthony Kawena‘ulaokalā Mann

Date of interview: January 10, 2018

Interviewee: Anthony Kawena‘ulaokalā Mann

Interviewer: Matthew Sproat

a. Biography

Kawena Mann is a Kumu Hula located in Fujisawa, Kanagawa, Japan, although he was born and raised in Kāhala, O‘ahu. Mr. Mann is a cultural practitioner of multiple fields, including hula, oli, lei making, mele, and healing. He makes multiple musical implements for hula. He underwent his ‘ūniki in 2008 under the direction of Kumu Hula Kawaikapuokalani Hewett to become a Kumu Hula himself.

b. General Discussion

Mr. Mann explained that his connection to the project area began under the direction of his Kumu Hula Hewett, who lives near the site. The hālau had many performances near this area at Castle High School and plants used in hula such as laua‘e were gathered here. His association with the project area includes gathering, pule, and oli.

Mr. Mann defined a cultural practitioner as someone who practices Hawaiian culture in a serious, focused, and purposeful way, rather than simply surfing, cooking or talking about Hawaiian values casually. Mr. Mann explained that he is personally working and thinking about these values every day, which makes him a cultural practitioner. He further elaborated that practitioners may have students and a distinguished lineage from which they learned their values and traditions.

Mr. Mann explained that the ability to see the ocean from a specific location was significant to the construction of a heiau. He recalled being able to see the ocean from the project area and remarked that he thought that this made it an important location.

Mr. Mann stated that he first started going to the project area 15 years ago, but he no longer frequents this area. When he accessed the area, Līpalu Street was the preferred method of entrance. He recalled feeling at peace without any negative energy in the area and the hike

was somewhat short.

Mr. Mann did not know of any cultural practitioners currently using the area, but he suggested interviewing Kawaikapuokalani Hewett because he is attuned to the land and its surroundings. He also suggested interviewing Richard Pedrina because he believed that Mr. Pedrina and his hālau cleared the area for easier access to gathering laua'e and other hula plants.

c. Biocultural Resources

Mr. Mann explained that any cultural resources that he is aware of are located far from the project area, but natural resources with cultural significance within the project area include kukui, laua'e, and hau for gathering. Mr. Mann was unaware of any traditions or customs that may take place within the project area.

d. Impacts

Mr. Mann explained that the heiau could be impacted by this project. He questioned how the mountains and hills would be removed for the expansion, which affects the natural landscape. Mr. Mann did not foresee any impacts to traditions and customs.

e. Mitigation Measures

In the event of clearing mountains and hills, Mr. Mann was adamant that the developers do not utilize dynamite for this demolition. He suggested that the developers incorporate the heiau into their plans and preserve it while creating something beautiful.

9. Interview with Kawaikapuokalani Kako'omai'o'iaonālaninuiamāmao Hewett

Date of interview: February 6, 2018

Interviewee: Kawaikapuokalani Hewett

Interviewer: Matthew Sproat

a. Biography

Kawaikapuokalani Hewett is a prominent and well-known kumu hula in the Native Hawaiian community. Mr. Hewett's family traces back 10 generations in Kāne'ōhe and He'eia and he currently resides on Nāmoku Street, near the project area. Mr. Hewett began hula in 1972 under kumu hula Emma DeFries, from whom he would 'ūniki in 1980. Kumu hula DeFries bestowed the title "lehua" and the color red upon him, the former representing that he reached the highest level of study and the latter representing a lot of kapu.

Mr. Hewett is a teacher and practitioner of hula, oli, herbal medicine, 'ōlelo Hawai'i, tradition, and culture. Mr. Hewett graduated from the University of Hawai'i in Hilo in 1978 and began to teach at Windward Community College in the aforementioned practices for 13 years. Mr. Hewett continues to teach hula today. Mr. Hewett also worked at the Waimānalo Health Center for 10 years teaching traditional medicine and working alongside medical doctors.

Mr. Hewett has been a prolific songwriter for many years and was associated with mele 'o Kaho'olawe, the Kaho'olawe movement, and 'Olomana. Many of his compositions have been shared with numerous hālau hula and are the focus of praise throughout the Islands.

b. General Discussion

Mr. Hewett disclosed that he is aware of the Kāwa'ewa'e heiau located within the project area and before the construction of HMP, there was a dairy in its place. He stated that he recalls the dairies there from 1954-1965. There was a long road that led to the Santos' family home that his family used to visit them.

Mr. Hewett claimed that he believes people have removed stones from the heiau and used them in the construction of fireplaces, despite reports that cows and cattle did the damage to the site. Mr. Hewett stated that he is more inclined to believe that community members

that camped around the site used the stones for their fires, rather than cows knocking over the stone walls.

Mr. Hewett shared that his cultural genealogy/lineage descends from 'Olopana, the chief responsible for Kāwa'ewa'e heiau's construction. He also stated that his genealogy can be traced back to Pele and Kamapua'a, which makes him uniquely connected to this heiau and project area.

Mr. Hewett defined a cultural practitioner as a person with personal knowledge of a place or practice. They should have formal training, the correct genealogy, and years of commitment and dedication. Mr. Hewett went on to explain that kupuna have the knowledge and wisdom to pass on to the younger generations and guide them in their studies, while the youth should learn all that they can from their kūpuna to fully become practitioners of their craft. Mr. Hewett did not know of any other cultural practitioners who originated from the town surrounding the project area.

In regard to stories and legends of the project area, Mr. Hewett stated that there were no specific ones that he could recall apart from ghost stories. Mr. Hewett shared that his kūpuna told him stories about people killed by Nightmarchers because they got too close to the heiau, which deterred him from entering the site of all heiau. Kanaka maoli have more respect for sites like these when compared to foreigners.

Mr. Hewett shared that a Japanese man named Charlie – the gentleman's last name was not disclosed – frequented the project area and took on the role of caretaker for the heiau and ensured its restoration and protection. Charlie had since moved away, but while he was there the heiau was well protected and cleaned. Mr. Hewett explained that he and Charlie were close friends, and he would enter the site through Charlie's backyard.

c. Biocultural Resources

When asked about the cultural resources in or near the project area, Mr. Hewett identified Kāwa'ewa'e heiau, but did not list any others. He explained that Kāne'ohe and He'eia area connected, and the legends associated with these ahupua'a concern Wākea, Kāne and

Haumea. Through the interconnection of the ahupua‘a through legend and the gods, Mr. Hewett explained that Kānehekili heiau and Kukuiokāne heiau can also be considered as significant sites in the area.

d. Impacts

Mr. Hewett did not state any specific impacts to cultural/natural resources in the project area, but he did mention that any impacts can be avoided by following the mitigation measures outlined in the following section.

e. Mitigation Measures

Mr. Hewett stated that Hawaiians are the blood relations of heiau, and it is therefore their duty to create protocols to ensure the preservation and perpetuation of the heiau and its surrounding area. Native Hawaiians, as descendants of the ancient gods, are responsible for ensuring that sites are not desecrated. Mr. Hewett stated that if this project has that goal in mind, then he applauds the efforts, but he wants to make sure that everything is done in the right way with the right intent so that the right outcome can be reached.

Mr. Hewett outlined the protocols that visitors should utilize when entering the site of the heiau, which is to mihi (repent/apologize) once arriving to be granted permission to be on the premises by the gods, go on a beautiful tour that educates, then mihi again when leaving to give thanks for the access to the site and to ensure that spirits do not follow one home. Honor and respect for the site are extremely important to Mr. Hewett in the course of the project and continued respect once it is completed.

Mr. Hewett stated that the consultants on this project need to “come from the land” because that will ensure that they have the correct information and culture learned through their kūpuna. The consultants need to be willing to help the community and promote more education of sacred sites and how to approach them.

10. Interview with Dr. Lianne Chang

Date of interview: March 7, 2018

Interviewee: Dr. Lianne Chang

Interviewer: Matthew Sproat

a. Biography

Dr. Lianne Chang is a medical doctor who specializes in pediatrics. Dr. Chang was born and raised in Hawai'i and has lived on the Windward side of O'ahu for over 40 years. She currently resides in Kāne'ohe on Ōhāhā Street, which is near the project area. Dr. Chang graduated from University of Hawai'i John A. Burns School of Medicine and completed her residency at the Kapi'olani Medical Center for Women and Children. She has practiced hula for the majority of her life under numerous kumu hula, including Ma'iki Lake, Alicia Smith, Mapuana DeSilva, Richard Pedrina, and Sonny Ching, the last of which she still dances.

b. General Discussion

As a resident of the area, Dr. Chang explained that her experiences of the project area include the peacefulness and tranquility that accompanies the forests and she can hear the birds chirping and the rustling of the leaves. Dr. Chang stated that she has come to know the area better because she collects laua'e there for the past 20 years. She has memories of the propensity of the hillside to flood when there are heavy rains, which occurs very often on that side of the island. Dr. Chang stated that she is aware of the many cultural sites located within the project area and that many of them form a complex. She expressed her concern about the future of these sites, such as Kāwa'ewa'e heiau and the women's complex.

Dr. Chang stated that she does not have memories of the dairies located near this site because she moved into the area after the construction of HMP, but she had heard stories about the dairies in her research.

Dr. Chang defined herself as a cultural practitioner of hula, in the sense that she has danced hula all of her life with multiple hālau. She stated that her experience as a practitioner also came from her in-depth research, so that she became familiar with the stories, chants, and

protocol for entering the areas of heiau. Her cultural genealogy in hula began when she was five years old, when she danced under two kumu hula in 'Aiea Heights and Kalihi Valley. She danced under Kumu Hula Ma'iki Lake for a few years in the early to mid 1970s and then Kumu Hula Alicia Smith in the late 1970s during her high school years. Before leaving for college, Dr. Chang danced under Kumu Hula Mapuana DeSilva. Upon her return to the Islands, she learned from Kumu Hula Sonny Ching in the early 1990s, during which time she competed in Merrie Monarch. Dr. Chang began to dance under the direction of Kumu Hula Rich Pedrina for a few years before return to Sonny Ching, under whom she continues to hula.

Dr. Chang defined a cultural practitioner as someone who has knowledge of a certain aspect of the culture, whether it be hula, hala weaving, kahuna lapa'au, etc. Cultural practitioners learn the aspects very well and need to know the protocols for each. They would then share it with others when appropriate and if possible.

When asked about any stories that planners should be aware of, Dr. Chang mentioned the legends of Kamapua'a, as it is the focus of many hula.

Dr. Chang explained that she first entered the project area roughly 10-15 years ago when she danced with Rich Pedrina, and she continues to go at least once or twice a year to gather laua'e and other ferns. Most recently, Dr. Chang entered the area with a neighbor so that they could define the boundaries of the CP based on a map obtained from the HMP project managers. She discovered that two of the sites she uses to gather laua'e are not within the boundaries of the CP and she expressed concern that these areas would be impacted by the expansion project.

Dr. Chang stated that she enjoys gathering laua'e from the project area because it is easy to access from the end of Līpalu Street and there are no fences or gates that deter gathering. She admitted that it can be difficult during the rainy seasons when the hills are muddy, but otherwise it is simple to gather what is needed and leave. Dr. Chang stated that as a Native Hawaiian practitioner, she and others have the right to gather what they need for cultural purposes, even if this area is on private property, because the practitioners have great

respect for the area and its resources. She commends the fact that HMP is working to make a CP, but she questioned why it was not an option before now and why they failed to reach out to the community before to organize something to be done for the heiau.

Dr. Chang recalled that individuals would engage in paintball fights in the area, which caused a great mess. She was aghast that there would be such disrespect for the cultural history of the Native Hawaiians.

c. Biocultural Resources

Dr. Chang identified the Kāwa'ewa'e heiau as a cultural resource in the petition area and she shared that she has walked the area around the heiau to become familiar with the boundaries. She also stated that she enjoys gathering the laua'e near the heiau because they are abundant in that area.

The natural resources with cultural significance listed by Dr. Chang include the laua'e and pala'a ferns, the latter of which have smaller patches. She stated that the flora or the area is what is primarily utilized by practitioners.

Dr. Chang was unaware of any traditions or customs that currently take place in or near the project area.

d. Impacts

Dr. Chang's main concern for the expansion project is the potential impact to the laua'e. She described the laua'e in this area as the greenest and sweetest smelling that she has ever encountered. She expressed concern that the expansion would result in the loss of trees that form the canopy above the laua'e patches and the laua'e need the shade and moisture provided by the canopy to successfully flourish and propagate. Dr. Chang explained that a particular laua'e patch that she frequents for gathering has thinned out in recent years, due to the disappearing canopy above the patch.

Dr. Chang expressed concern about the possible chemicals that can enter the soil as a result of the cemetery expansion, as buried bodies are treated with chemicals that can be harmful

for the environment. Dr. Chang explained that there are natural springs in the area that connect to the neighboring homes; when there are heavy rains the springs can seep through the asphalt of driveways. She was concerned about these chemicals entering the neighborhood's property. In addition, Dr. Chang explained that these chemicals can also runoff and affect the connected fishponds and Kāne'ohe Bay as well.

The traditions and customs that take place within the project area that could possibly be impacted is the act of gathering laua'e for hula and the pala'ā to put on altars.

Dr. Chang also voiced her concern about the noise and traffic impacts of such a project. She stated that she can hear the gunshots from the Veterans Cemetery during burials and this expansion project would be just as loud, if not louder. She stated that the residents of that area love it because it is quiet, and this project could potentially disrupt the tranquil and peaceful environment to which they are accustomed.

e. Mitigation Measures

Dr. Chang stated that she is against the expansion because she is concerned about the impacts to the laua'e and in a perfect world there would be no expansion plans. She would like to see HMP as good tenants of the land that help to perpetuate and improve the area around the heiau by assisting in clearing out the invasive plants. She also advised that they reach out to organizations that would like to assist in the clearing along with the Ko'olaupoko Hawaiian Civic Club.

Dr. Chang would prefer not to see the clearing of trees that provide a good canopy for the laua'e to flourish. As a practitioner, she wants reassurance that there will be an area for her and others to gather the pristine laua'e whenever she needs it, without it being trampled by the construction.

VI. Impact Assessment

A. Impacts to Flora

While practitioners expressed concern regarding the impact to flora such as laua'e and pala'a, those impacts can be minimized through the establishment of the CP. There is no indicator that cultural activities occur outside the area designated for the CP. Additionally, the status quo or no action alternative may be the greater threat to the existing flora, as unchecked recreational activities and trespassers pose a regular threat to these resources.

B. Impacts to Fauna

Practitioners identified no traditional and customary practices associated with fauna in the area that would potentially be impacted by the project.

C. Impacts to Historic Sites

Numerous Native Hawaiians expressed concerns about the heiau and surrounding sites and features. Accordingly, a new AIS with a 100% pedestrian survey was repeated. A CP is being established that protects Kawa'ewa'e Heiau and its adjoining cultural landscape that minimizes impact to historic sites.

D. Impacts to Intangible Cultural Resources

The intangible cultural resources in the petition area fall into two categories: historic mo'olelo associated with the heiau and cultural practices. The historic mo'olelo related to 'Olopana and Kamapua'a. These mo'olelo are described above. There are no impacts to these intangible cultural resources as the heiau will be conserved through the CP.

The other intangible cultural resources relate to traditional and customary practices as related to hula. The area designated for protection as a CP has been utilized by Kumu Hula for generations. Laua'e fields, pala'a, ti, kukui, palapalai, and other hula plants grow in the area. Kumu Hula access the area, care for the area and its resources, use these resources to

make lei, dye, medicine, and for other practices. They also teach these practices to their students. The area is important for perpetuating customary practices.

E. Impacts to Cultural Practices

Some of the individuals and groups consulted shared concerns regarding trespassers in the project area. As a result, Hawaiian Memorial Park is considering erecting a fence around the perimeter of the project area (not just the petition area) to keep out squatters, paintball activities, and other users that could harm the sensitive resources in the project area.

Erecting a fence could both positively and negatively impact the valued resources in the project area. The positive impacts would be that it would keep trespassers out, which is very much needed. Fences could also help to keep ungulates out of sensitive areas, like the damselfly habitat. The negative impacts would be that it could also deter cultural practitioners from easily accessing resources they have utilized for many years and generations.

F. Cumulative and Indirect Impacts

Hawaiian Memorial Park is in preliminary discussions with the Hawaiian Islands Land Trust (HILT) to place the entire 164-acre project area within a conservation easement to negate any long-term cumulative and indirect impacts that could possibly arise from this project. This is a highly innovative and thoughtful model use of a conservation easement that could inspire future sustainable low-density development across Hawai'i. If the Land Use Commission (LUC) approves its petition, HMP will be preserving the Kāwa'ewa'e 'ili and cultural landscape through a CP (approximately 14.5 acres), which will be placed in a conservation easement with HILT, ensuring those cultural resources are conserved in perpetuity. HMP would waive any tax benefit and endow the management of the easement. Additionally, there would be a Memorandum of Agreement with the Ko'olaupoko Hawaiian Civic Club for the Management of the CP.

G. Mitigation and Best Management Practices

The Cultural Preserve concept has been established, expanded, and redesigned to provide maximum protections to the most significant historic sites, cultural resources, traditional and customary practices within the project area. The following best management practices have also been recommended to minimize any impacts to historic sites, cultural resources, traditional and customary practices:

- Follow all recommendations in the Archaeological Inventory Study;
- Continue to allow access to practitioners through Līpalu Street;
- Create safe access for kūpuna and practitioners to the heiau while limiting access from trespassers who degrade and harm the site;
- Work with community to allow for regular maintenance of the site again;
- Work with community to development educational and interpretive program;
- Work with practitioners to protect hula and medicinal plants;
- Allow for restoration of living cultural landscape, including but not limited to, ‘auwai system and historic terraces; and
- Develop preservation plan and management plan with cultural advisory group and Ko’olaupoko Hawaiian Civic Club to foster appropriate cultural management of CP with area kūpuna and Kumu Hula.

VII. Conclusion

Contrary to popular practice, it is not the role of the CIA to simply rehash an analysis of historic sites, nor it is the role of the CIA to analyze recreational activities. The role of the CIA is to:

- 1) Identify valued cultural, historical, or natural resources in the project area, including the extent to which traditional and customary Native Hawaiian rights are exercised in the project area.
- 2) Identify the extent to which those resources—including traditional and customary Native Hawaiian rights—will be affected or impaired by the proposed action; and
- 3) Identify feasible action, if any, to be taken to reasonably protect Native Hawaiian rights if they are found to exist.

In order to complete a thorough CIA that complies with statutory and case law, it is necessary to consult with Native Hawaiian cultural practitioners and lineal and cultural descendants from the project area and have meaningful dialogues with them that result in data that speaks to the intent of building a strong cultural impact analysis. Honua Consulting identified multiple Kumu Hula from the area, lineal and cultural descendants, and Hawaiian organizations. From thorough interviews and research, data was extrapolated that provides an unprecedented comprehensive look at the cultural resources on this 'āina, including not only historic sites but the many plant resources that serve as important cultural resources that are critical to the traditional and customary hula practices and lineages in the Ko'olaupoko Moku.

Through that valued input of the practitioners and descendants, the action plan set forth in this analysis for the CP and other actions will effectively protect the Native Hawaiian rights in this area and the cultural resources utilized by cultural practitioners.

It is also critical to note that affirmative steps should be taken to protect the 'ike (knowledge) graciously shared in this document by practitioners and descendants regarding the location of valued hula resources.

Conclusion

As stated in our introductory section, the State of Hawai'i and its agencies, in this case through the State Land Use Commission, have an affirmative obligation to preserve and protect the reasonable exercise of customarily and traditionally exercised rights of Native Hawaiians to the extent feasible. State law further recognizes that the cultural landscapes provide living and valuable cultural resources where Native Hawaiians have and continue to exercise traditional and customary practices, including but not limited to hunting, fishing, gathering, and religious practices. Therefore, under the *Ka Pa'akai* analysis, approval of the applicant's petition would not adversely impact traditional and customary Native Hawaiian rights identified in the project area. The rights of Native Hawaiian cultural practitioners are preserved and protected by avoiding development in any areas identified through the interviews or research as areas utilized for traditional or customary practices. Additionally, the applicant is taking the additional step of placing lands and resources used for traditional or customary practices into a cultural preserve and conservation easement. This will ensure the protection of these resources in perpetuity. The land owner has further agreed to continue to work with practitioners to ensure safe, regular access to the lands and resources for cultural practice.

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Appendix A: Luakini Heiau

The following passage was extracted from David Malo's *Hawaiian Antiquities (Moolelo Hawaii)* (1951) with translation and notes by Nathaniel B. Emerson. While Emerson's translation of *Moolelo Hawaii* is the most widely used English version today, it has its limitations. Various scholars have noted that Emerson lacked the cultural literacy and Hawaiian language skills to do justice to Malo's complex work. While some of Emerson's translations are fitting, others are confusing and could be treated with more care. In the following appendix, bracketed notes have been added to clarify some of the nuances lost in his translation.

CHAPTER 37

CONCERNING THE LUAKINI

1. It was a great undertaking for a king to build a *heiau* of the sort called a *luakini*, to be accomplished only with fatigue and with redness of the eyes from long and wearisome prayers and ceremonies on his part. [Only an ali'i nui (high chief) could have a luakini heiau built. They were of the strictest order and were built only for the highest chiefs. It appears the the construction of a luakini marked the reign of an ali'i nui.]

2. There were two rituals which the king in his eminent station used in the worship of the gods; one was the ritual of Ku, the other that of Lono. The Ku ritual was very strict (*oolea*), the service most arduous (*ikaika*). The priests of this rite were distinct from others and outranked them. They were called priests of the order of Ku, because Ku was the highest god whom the king worshipped in following their ritual. They were also called priests of the order of Kanalu, because that was the name of their first priestly ancestor. These two names were their titles of highest distinction. [Kū is generally understood as the main god connected to war and politics, making him an important deity for high-ranking chiefs. Lono is an agricultural deity, connected to the land's fertility and to peace. Both deities were crucial to the ruling chief and were assigned different times of the year to be worshipped. During the Makahiki, Lono's time of celebration, Kū rites, including all work at the luakini, were put to rest. After the Makahiki, Kū rites were resumed for the remainder of the year.]

3. The Lono ritual was milder, the service more comfortable. Its priests were, however, of a separate order and of an inferior grade. They were said to be of the order of Lono (*moo-Lono*), because Lono was the chief object of the king's worship when he followed the ritual. The priests of this ritual were also said to be of the order of Paliku. [Priests of Lono took on a commanding role during the Makahiki, when Lono is in rule. However, the bulk of the calendar year was under the orders and rites of Kū, making the Lono priesthood a humbler position.]

4. If the king was minded to worship after the rite of Ku, the *heiau* he would build would be a *luakini*. The timbers of the house would be of *ohia*, the thatch of *loulou* palm or of *uki* grass. The fence about the place would be of *ohia* with the bark peeled off.

The *lananuu-mamao*¹ had to be made of *ohia* timber so heavy that it must be hauled down from the mountains. The same heavy *ohia* timber was used in the making of the idols for the *heiau*. [High-ranking chiefs with a desire to spread their rule would always have a *luakini heiau* built. It was a time-consuming endeavor and had to be done according to strict protocol.]

5. The tabu of the place continued for ten days and then was *noa*; but it might be prolonged to such an extent as to require a resting spell, *hoomahanahana*;² and it might be fourteen days before it came to an end. It all depended on whether the *aha*³ was obtained. If the *aha* was not found the *heiau* would not soon be declared *noa*. In case the men took a resting spell, a dispensation was granted and a service of prayer was offered to relax the tabu, after which the *heiau* stood open. [The length of these rites depended on when the materials for the *aha* could be obtained. Until the *aha* was finished, the site remained under various restrictions. This process could not be rushed or forced. Obtaining the *aha* was a sign that the chief would have a successful rule.]

6. The body of priests engaged in the work stripped down the leaves from a banana stalk as a sign that the tabu was relaxed; and when the Ku tabu of the next month came round, the tabu of the *heiau* was again imposed. Thus it was then that, if the *aha* was procured, the services of prayer came to an end; otherwise people and chiefs continued indefinitely under tabu and were not allowed to come to their women folk. [Each of the major four male deities has a ten-day period where their specific *kapu* are enforced. During Kū's *kapu* period, the *luakini* and priests of Kū were put under strict regulations.]

7. The tabu might thus continue in force many months, possibly for years, if the *aha* were not found. It is said that Umi was at work ten years on his *heiau* before the *aha* was found, and only then did they again embrace their wives. This was the manner of building a *heiau-luakini* from the very earliest times; it was *noa* only when the *aha* had been found.

It was indeed an arduous task to make a *luakini*; a human sacrifice was necessary; and it must be an adult, a law-breaker (*lawe-hala*). [The difficulty in obtaining the *aha* added to the *luakini*'s religious significance. Constructing and dedicating this type of *heiau* could not be rushed for any purposes. Rites connected to the *luakini* ensured Kū's favor in war and politics. It required perfect construction according to various religious rules and demanded suitable human sacrifices. Of all *heiau*, *luakini* were some of the most demanding.]

8. If the king worshipped after the rite of Lono, the *heiau* erected would be a *mapele*; or another king was the *unu o Lono*. The timber used in the construction of the house, the fence about the grounds, and in constructing the *lananuu-mamao* was *lama*; and it was thatched with the leaves of the *ti* plant (*cordyline terminalis*). There were also idols. The tabu lasted for three days, after which the place would be *noa*, provided, however, that the *aha* was found. If the *aha* were not found, the same course was taken as in the case of the *luakini*.

9. The *mapele* was a thatched *heiau* in which to ask the god's blessing on the crops.⁴ Human sacrifices were not made at this *heiau*; pigs only were used as offerings. Any chief below the king in rank was at liberty to construct a *mapele heiau*, an *unu o Lono*, or an *aka*, but not a *luakini*. The right to build a *luakini* belonged to the king alone. The *mapele*, however, was the kind of *heiau* in which the chiefs and the king himself prayed most frequently. [As an agricultural deity, Lono was commonly worshiped by all classes of people. His connection to

food sustainability made him extremely important, and as a result his heiau were less restricted. In contrast, a luakini was reserved only for the highest ranking ali'i.]

10. The *luakini* was a war temple, *heiau-wai-kaua*, which the king, in his capacity as ruler over all, build when he was about to make war upon another independent monarch or when he heard that some other king was about to make war against him; also when he wished to make the crops flourish he might build a *luakini*. [Luakini could be used for a variety of reasons, but ultimately ensured the ruling chief had the divine support needed to maintain their rule.]

11. It was the special temple in which the king prayed to his gods to look with favor upon him, and in the services of that *heiau* he obtained assurances of victory over his enemies, or received warnings of defeat at their hands.

12. If all the *aha* of his *luakini* were obtained, then the king felt assured that he would have victory and rout his enemies, and he went into battle with good courage. But if the *aha* were not found, it meant his defeat, and he would not go out to attack the other king.

The building of a *luakini* for the king to worship in was conducted in the following manner. [The constructing of a luakini may have been seen as an omen in and of itself. If a chief was unsuccessful in building their luakini, defeat was interpreted.]

13. The king, in the first place, inquired of his high priest in regard to building a *luakini*; whether he thought the old *luakini* would answer, provided the house and the fence were renewed; whether the old stone wall should be allowed to remain; and whether the old idols should still continue to be used. [This passage reveals the way luakini were seen as animate spaces. As sacred grounds they held certain energies and could achieve certain feats. In constructing a luakini, it had to be determined if the mana of the site was potent enough for the heiau. Luakini could not be built anywhere, and old sites could not be re-used unless they were still potent.]

If the king's proposition was agreed to, the first thing was to perform the ceremony of purification (*huikala*) on the *heiau*, and make it *noa* (i.e., free), to enable the workmen to enter it, that they might put a new fence about it and newly thatch the house with *loulu* palm or with *uki*.

14. If the king, the priests and others agreed that it was best to build an entirely new *luakini*, the *kahuna kuhi-kuhi-puu-one*⁵ was sent for. It was his function to exhibit a plan of the *heiau* to the king, because this class of persons were thoroughly educated in what concerned a *heiau*. They were acquainted with the *heiau* which had been built from the most ancient times, from Hawaii to Kauai, some of which had gone into ruins. These *kuhi-kuhi-puu-one* knew all about these old temples, because they had studied them on the ground, had seen their sites and knew the plans of them all. [Kahuna kuhikuhipu'uone may be understood as religious architects or feng shui masters. They read the energies of places and were trained in constructing various sacred spaces. Each type of heiau has different requirements for construction, such as how far the site is from shore, what direction it faces, and what winds it receives. Kahuna kuhikuhipu'uone ensured these conditions were met in selecting sites for heiau.]

15. They knew the *heiau* which a certain ancient king had built, as a result of which he gained a victory over another king. That was the *heiau*, the plan of which the *kuhi-kuhi-puu-one* explained to the king; and if the king was pleased, he first made a sort of plan of the *heiau* on the ground and exhibited it to the king with an explanation of all its parts, so that he could

see where the fence was to run, where the houses were to stand, and where was the place for the *lanu-nuu-mamao* with the idols.

16. Then a levy was made of people who should build the *heiau* from among those who ate at the king's table—the *aialo*—and the chiefs; and the work of hauling the *ohia* timber for the *lanu-nuu-mamao*, and for making the idols themselves, was begun. [Constructing a luakini required much manual labor, but chiefs did not collect random laborers to do the work. Due to the sacred nature of the construction, only those who ate at the same table as the chief, i.e. his close companions and relatives, could aid in building it. It should be noted that every step of the process was restricted in some way. Each part of the luakini had to be built under a specific moon, accompanied by specific rituals and ceremonies. The following description of the luakini construction gives an idea of the strictness associated with this religious event.]

The work of carving the certain images was assigned to special chiefs. A stone wall was then put up which was to surround all the houses.

17. The plan of the *luakini* was such that, if its front faced west of east, the *lanu-nuu-mamao* would be located at the northern end. If the *heiau* faced north or south, the *lanu-nuu-mamao* would be located at the eastern end; thus putting the audience either in the southern or western part of the *luakini*.

18. Within this *lanu-nuu-mamao* was a pit called a *lua-kini*,⁶ or *lua-pau*. In front of the *lanu-nuu* stood the idols, and in their front, a pavement (*kipapa*) and the *lele* on which the offerings were laid. [It should be noted that Hawaiians understood “idols” or *ki'i* as divine objects. They were not simply carved depictions of the gods; they were the gods themselves.]

19. In front of the *lele* was a pavement of pebbles or a framework on which the offerings were deposited until they were offered up (*hai*), when they were laid upon the *lele*. In front of the *lele* was a house called *hale-pahu*, with its door facing the *lele*, in which the drum was beaten. At the back of the *hale-pahu* stood a larger and longer house, called *mana*, its door also opening towards the *lele*. To the rear again of the *hale-pahu* was another house which stood at the entrance of the *heiau*. In the narrow passage back of the drum house (*hale pahu*) and at the end (*kala*) of the house called *mana* was a small house called *waiea*, where the *aha* cord was stretched.

20. At the other end (*kala*) of the *mana* was a house called *hale-umu*, in which the fires for the *heiau* were made. The space within the *pa*, or enclosure, was the court, or *kahua*, of the *heiau*. Outside of the *pa*, to the north, was a level pavement (*papahola*), and to the south and outside of the *pa*, stood the house of Papa.⁷ At the outer border of the *papahola*, crosses were set in the ground to mark the limits of the *heiau*.

21. After the stone wall of the *heiau* was completed, they proceeded to build the *lananuu*,⁸ first setting up the frame and then binding on the small poles (*aho*); after this they set up the idols, of which there were a good number. Some of them were *makaiwa* images,⁹ of great height. In the midst of these images was left a vacant space, in which to set up the new idol that was to be made, called the *moi*.¹⁰

22. After all these things were done – the erection of the houses being deferred until a tabu was imposed – the *kahuna*, *alii*, and certain other religious persons made preparations to purify themselves, which they did in the following manner.

23. During the days when the waning moon was late in rising over the island, that is during the nights of Laaukukahi, etc., they made for themselves temporary booths called *hale-puu-one*;¹¹ next, booths covered with *pohue* vine; then, an *oe-oe* booth; then, a *palima*;

then, a *hawaii*.¹² Each one of these was consecrated and made tabu, its ceremonies performed, and the place declared *noa* on the self-same day. After doing this the purification of the priests, chiefs and others was completed and they were fit to enter the *heiau*.

24. The next thing was the purify the whole island. On the day Kaloa-ku-kahi, the *mauka* road that extended round the island was cleared of weeds from one end to the other, each man who had land (abutting?) doing his share and all making a day of it about the whole island. They set up an altar of stone at the boundary of every *ahupuaa*.

25. Then they carved a log of *kukui* wood in imitation of a swine's head. This image, called *puaa-kukui*, was placed on the altar, together with some *pai-ai* (i.e., hard *poi*).

26. This done, every man went his way home and the road was left vacant. Then came the priest, smeared with red clay (*alaea*) mixed with water, accompanied by a man who impersonated the deity, and whose hair was done up after the fashion of *niheu*.¹³

27. On coming to the altar, on which was lying the pig's head carved in *kukui*, the priest having uttered a prayer¹⁴ and having bedaubed the carving with *alaea*, they ate the *pai-ai*. The priest then declared the land purified, the tabu removed.

28. Then they left this land and went on to another, bedaubing with *alaea* the carved pigs' heads as they passed from one land to another – all that day and the next day (Kane), and the next (Lono), and still another day (Maui) – until the whole island was purified and this ceremony relating to the *luakini* was performed. The ceremonies that remain were for other priests to perform. [The construction of a *luakini* had effects on the entire island. While the actual construction of the *luakini* was reserved for those with a kinship to the ali'i, all people under the chief's rule had some degree of participation.]

29. On the evening of the next day, Muku, all those who were to attend the *heiau* – king, chiefs and commoners – came together in one place for purification; and when they had all assembled, a special priest whose function it was to perform purification came with a dish of water and a bunch of *pala* fern in his hands and conducted the following service:

30.

Priest:

Lele Uli¹⁵ e! lele wai e!
He Uli, he Uli! He wai, he wai!
A lele au i ke au, e
Kane-mehane o nehe-lani.
Nehe ia pikana ka lani.
A lama, he mu oia.

Fly, O Uli! fly, O water!
Here is Uli, Uli! here is water! water!
I fly to the realm of Kane, the benevolent,
noiseless in the heavens.
Heaven is appeased by the sprinkling.
Light comes, he is gracious.

People:

He mu¹⁶ oia.

He is gracious.

Priest:

He mu ka ai-ku,
He mu ka aia,
He mu ka ahula,
He mu ka paani,
He mu koko lana.
I koko puaa!
I koko ilio!

Awed into silence are the unceremonious ones,
Awed into silence are the atheists,
Awed into silence are they who gather at the
hula,
Awed into silence are those who sport,
Awed into silence are the hot-blooded ones.
Give the blood of swine!

Appendix A: Luakini Heiau

I koko kanaka make! He mu oia.	Give the blood of dogs! Give the blood of a human sacrifice! These are of godlike power.
People: He mu!	Of godlike power!
<i>Kahuna:</i> Elieli! ¹⁷	Finished!
People: Kapu!	The tabu!
<i>Kahuna:</i> Elieli!	Finished!
People: Noa!	It is free!
<i>Kahuna:</i> Ia e!	O (god) Ia!
People: Noa honua!	Freedom complete and instant!

The priest then sprinkled the water upon all the people and the ceremony of purification was accomplished, after which every man went to his own house.

31. On the evening the next day (Hilo), the first of the month (possibly on Welo), a tabu was laid on the *luakini*, and the king, chiefs, and all the people entered into the temple and were ordered to sit down by ranks and to make no noise.

32. Then another priest came forward to preside at the service, holding in his hand a branch of *ieie*. Standing in the midst of the people, he offered a prayer called *lupa-lupa*.¹⁸ When the priest uttered the words “E ku kaikai na hikia” (Stand up and hold aloft the spears), all the people responded, “Hail!” Then the priest said, “Ia!”¹⁹ and the people responded, “Hail, Hail, O Ku!” (*Ola, Ola, o Ku!*). When this service was over, all the people slept that night in the *heiau* under the restrictions of tabu. Not one, not even an *alii*, was allowed to go out secretly to sleep with his wife. If any one were detected in such conduct, he would be put to death.

33. On the morrow, which was Hoaka, the people were again seated in rows, as in the service led by the *kahuna* on the previous evening, and another *kahuna* stood forth to conduct the service. He repeated a *pule* called *kau-ila-huluhulu* (rough *kauila* stick).

34. That night (Hoaka), still another *kahuna* conducted the service called *malu-koi*, in which they consecrated the axes that were to be used in hewing the timber for the new idols; and laid them over night (in the little house *mana*).²⁰ A fowl was baked for the use of the *kahuna*, another for the king, and a third for the deity; and then they slept for the night.

35. The next morning (Ku-kahi), the king, chiefs, people and the priests, including that priest who conducted the service of *malu-koi*, started to go up into the mountains. The priest who performed the *malu-koi* service with the ax was called *kahuna haku ohia*, because *haku*

ohia was a name applied to the idol which they were about to carve. Another name for the idol was *moi*. That day, the *kahuna haku ohia* began a fast which was to continue for six days.

36. In going up they took with them pigs, bananas, coconuts, a red fish (the *kumu*) and a man who was a criminal, as offerings to the deity.

37. A suitable *ohia* tree had previously been selected – one that had no decay about it, because a perfect tree was required for the making of the *haku ohia* idol – and when they had reached the woods, before they felled the tree, the *kahuna haku ohia* approached the tree by one route and the man who was to cut the tree, by another; and thus they stood on opposite sides of the tree.

38. The *kahuna* having the axe and the king having the pig, the people remained at a respectful distance, commanded to preserve strict silence. The *kahuna* now stood forth and offered the *aha*²¹ prayer called *mau haalelea*.²²

39. On the completion of the prayer, the king uttered the word *amana* (equivalent to amen) and then killed the pig by dashing it against the ground, after which he offered the pig as a sacrifice. This done, the *kahuna* inquired of the king, “How was this *aha* of ours?” If no noise or voice, no disturbance made by the people, had been heard, the king answered, “The *aha* is good.” Then the *kahuna* declared: “To-morrow your adversary will die. The incantation (*aha*) we have just performed for your god was a success. On the death of your adversary, you will possess his lands, provided this business is carried through.”

40. The *kahuna* having first cut a chip out of the tree, the criminal was led forth; and the priest, having taken his life by beheading, offered his body as a sacrifice. The tree was then felled, the pig put into the oven, and the work of carving the idol taken up and carried to a finish by the image carver. The pig, when cooked, was eaten by the king and people; and what remained after they had satisfied their hunger was buried, together with the body of the man, at the root of the tree from which the image had been made. The man used as a sacrifice was called a man from *mau-haalelea*. Thus ended this ceremony.

41. The people then went for *pala* fern, making backloads of it, and they gathered the fruit and flowers of the mountain apple, the *ohia*, until the hands of everyone were filled with the bouquets. Then, some of them bearing the idol, they started on their way down to the ocean with tumultuous noise and shouting.

42. They called out as they went, “O Kuamu.²³ O Kuamumu. O Kuawa. O Kuawa-wa. I go on to victory (*u-o*).” Thus they went on their wild route, shouting as they went; and if any one met them on their way, it was death to him; they took his life. On arriving at the *heiau*, they put the image on the level pavement of the temple court, and having covered it with *ieie* leaves, left it.

43. That evening they measured off the foundation of the house (*mana*) and determined where it should stand, where should be its rear, its front, and its gables. A post was then planted at the back of the *mana*, directly opposite its door of entrance. This upright was termed a *nanahua* post, and it marked the place where the image of Luamu was to be set. A post was also planted between the *makaiwa* – images of Lono – at the spot where the image called *moi* was to be set up. This post was called the pillar of Manu (*ka pou o Manu*).

44. The ensuing night, stakes were driven to mark the four corner posts of the *mana*, after which the king and priest went to carry the measuring line (*e kai i ka aha helehonua*). The priest stood at the corner post of *mana* while he repeated the prayer, and by him stood the king holding the sacrificial pig. When the prayer was over, the *kahuna* stooped down and took the end of the line in his hands...

45. Then he ran from that stake to the next and gave the line a turn about the stake, then to the next and did the same thing there; thence he returned and rejoined the king at the spot where the prayer had been made. Then, having said *amana*, the king dispatched the pig by beating him against the ground.

46. This done, the priest inquired of the king, “how is our incantation – our *aha*?”; and if no voice, no noise, had been heard, the king answered, “the ceremony – the *aha* – was good.” Thereupon the *kahuna* assured the king that his government was firmly established, “because,” said he, “the land-grabbing ceremony (*aha hele honua*) has just been successfully performed.” It was a special priest who officiated at this ceremony.

47. On the next day, Kulu, the people came in multitudes, bringing timber, cord, leaves of the *loulu* palm, and *uki* grass with which to build and thatch the different houses, the drum house, the *waiea*, the *mana*, and the oven house. When the frames of the houses had been set up, the thatching was left to be done after the *kaui* ceremony had been performed.

48. On the day Kulua, the *kaui* celebration took place. It was conducted in this manner: The king and a company of men were stationed a short distance away, at a place called Kalwa, the *kahuna* and the bulk of the people being by themselves and not far away.

49. This was on the level ground (*papahola*) outside of the *heiau*, the whole multitude of people being seated on the ground in rows.

50. Then the keepers of the *kaai* gods came, each one bearing the *kaai* god of his chief (the *kaai* god of the king also was there). The number of these idols was very great. The god Kahoalii, also, was impersonated by a man in a state of nudity.

51. At this juncture, the *kaai* gods being held aloft, each on his spear decorated with a banner, the *kahu* of each sat in front of the god of his charge, waiting for the signal to run in a circle about all the *kaai* gods. If any *kahu*, however, made a mistake in this circuit running he was put to death, and the duty of the running then devolved upon the *alii* to whom belonged the idol.

52. When all the people were ready, the high priest of the temple came forward, arrayed in a large white *malo* and carrying in his hand a bunch of *pala* fern. He was accompanied by a man carrying a human skull containing sea water (*kai*). *Kai-a-pokea* also was the name applied to the prayer which the *kahuna* now repeated – a very long prayer it was.²⁴

53. Silence was ordered and the high priest stood forth to conduct the service; and when he uttered the words, “*A hopu! A hopu!*”²⁵ all the *kahu* of the idols stood up and, taking hold of their idols, held them to their front, standing the while in a well-dressed line.

54. At the same time, Kahoalii, the man god, stood forth in front of the *kaai* gods, his nakedness visible to the whole multitude; and that moment the priest uttered the following words of invocation:

55. Mau hoe e, ihe a Luakapu! ²⁶	Strange paddles, spear of Luakapu!
E Lukaluka e, he mau hoe e!	Robed one, curious are your paddles!
Ihe a Luakapu, e Lukaluka, e Luka,	Spear of Luakapu, O Lukaluka,
O hookama ko haalaele, e Luka!	Adoption will be to you a house, O Luka!

56. Kahoalii then started on the run in all his nakedness, and all the *kaai* gods followed after in regular order. They took a circular course, all the time paying close attention to the prayer of the *kahuna* until he came to the words, “*A mio i ka lani omamalu.*”²⁷

57. Kahoalii then turned to the left, and all the *kaai* gods following turned also and came back. On their return they came to where was standing a man with a staff in his hand who joined their company, and they all came back together.

58. The priest, in his prayer, uttered these words of invocation:

Kukui Kahiko i ka lani,
A uwa i ka make o Manalu.²⁸

Kahiko assails heaven with petitions,
An uproar at the death of Manalu.

Then all the *kaai* gods with their *kahu* halted and stood in well-dressed ranks facing the *kahuna* in profound silence, and the *kahuna* and all the assembly stood facing them.

59. The man whom they had met then took his station in the space between the people and the *kaai* gods, still holding his staff in hand.

60. Then the high priest asked him in the words of the prayer, "To whom belongs the earth? To whom belongs the earth? (*Nowai honua? Nowai honua?*)"

61. "The earth belongs to Ku," answered the priest, "a priest has ratified the transaction" (*hana mai a mana ke kahuna*).²⁹ Then the *kahuna* again asked the question of this man, who was himself a *kahuna*, and he answered, "To Ku belong the small pieces of land" (*no Ku ka hai makaokao*).³⁰

62. The *kahuna* then went through with a long service of the *pule kai*, the full name of which was *kai-o-po-kea*; but on account of its wearisome length, it was nicknamed *unuhi kai o po-kea*. And when their prayer was completed they sat down.

63. After that a priest of the order of Lono stood forth, he was called a *kahuna kuhi-alaea* – the *kahuna* bedaubed with clay. He held in his hand a staff bound with a white cloth called *olo-a*, and recited a service of prayer.

64. This was also a tediously long service, and was called *kai o Kaua-kahi*, salt water of Kaua-kahi. Toward the close of this prayer, the *kahuna* uttered the words, "O Ku! remove our perplexities!" (*E Ku kaikai na hihia!*)³¹

65. At this, the whole assembly exclaimed, "Hail!" The priest then said, "Ia." Thereupon the people responded, "Hail, hail, Ku!" (*Ola! ola! o Ku!*) With these words, came to an end the part taken by this priest, also that portion of the service denominated *kauila* (*kauila ana*).

66. After this, all the chiefs and the people returned to their own houses to refresh themselves with food. The material was now made ready for thatching the houses in the *luakini*, and when the arrangements were all completed, certain men climbed upon the houses, taking with them thatch poles (*aho*) of a special kind called *auau*.

67. While this was going on the priest stood and recited a service for the *aho*, in which he used the expression, *kau na auau*³² (put the thatch poles in place). When all these thatch-sticks were lashed on, the priest concluded his service.

68. The houses were then thatched, the drum house, the oven house, the *waiea*, and the *mana*, after which the people brought presents of pigs, cocoanuts, bananas, red fish, also *oloa* to serve as *malo* for the idols, braided sugar cane for the thatch of the *anuu-mamao* (same as the *lana-nuu-mamao*) as well as for the *mana*. This accomplished, all the people returned to their houses.

69. That same evening, Kulua, the *haku-ohia* idol, was brought in from the paved terrace, *papahola* (section 42), and set in the place which had been specially reserved for it, that being the spot where the pillar of Manu had been planted (section 43).

70. The post hole in which this idol (*haku-ohia*) was set was situated between the *makaiwa*³³ images, directly in front of the *lana-nuu-mamao* and close to the *lele*, on which the offerings were laid. There it stood with no *malo* upon it.

71. At this time none of the idols had *malo* girded upon them; not until the evening, when this image, the *haku-ohia* idol, had been arrayed in a *malo*, would the rest of them be so covered. While in this unclothed state, the expression used of them was, "the wood stands with its nakedness pendent" (*ua ku lewalewa ka laau*).

72. Then a priest stood forth and conducted a service for the setting in its place of this idol, which service was styled *ka poupouana*. A man who was a criminal³⁴ was first killed, and his body thrust into the hole where the idol was to stand. The man was sacrificed in order to propitiate the deity; and when the service was done the chiefs and the priests returned to their houses, keeping in mind the work to be done that night.

73. That evening all the people, commoners and chiefs, made themselves ready to pray to their own special gods for the success of the service, the *aha*, which was to be solemnized that night, being continued until morning.

74. The special burden of their prayers was that it might not rain that night, that there might be no wind or thunder or lightning, that there might be no heavy surf, that no fire should burn, that there should be no sound or outcry from voice of man or beast that whole night until day; for thus would the conduct of the service be perfect. This was the character of the *luakini* service from ancient times down.

75. That night some of the people left their houses and lay in the open air, for the purpose of observing the heavens; and if a cloud appeared in the sky, they prayed that everything that could mar the ceremony of the night might be averted.

76. When the milky way was visible and the sky became clear overhead, if it had perhaps been overcast, and all sounds were hushed...

77. Then the king and the high priest went into the house, the *waiea*, and were there together by themselves to conduct the service, the *aha*. The multitude of the people remained at a distance in front of the *mana*, listening, lest any noise should be heard to make the ceremony nugatory (*o lilo ke kai aha ana*).

78. The king stood and held the pig, and the priest stood and recited the service, which was called *hulahula*.³⁵ Until the close of the service, the king hearkened if every noise was quiet, and then he perceived that the *aha* was perfect.

79. The king then dashed the pig against the ground until it was dead and offered it to the gods, saying, "O Ku! O Kane! and Kanaloa! here is a pig. Keep and preserve me and safeguard the government. Amen. It is free. The tabu flies away."

80. Then the *kahuna* asked the king, "How is the *aha* you and I have performed?" He repeated the question, "How is the *aha* you and I have performed?" Then the king answered, "The *aha* is perfect."

81. The king and priest then went out to the people waiting outside, and the king put the questions to them, "How is our *aha*?"

82. Thereupon they answered, "The *aha* is perfect; we have not heard the smallest sound (*kini*).” Then the whole assembly broke out into a loud shout, "Lele wale ka aha e! Lele wale ka aha e!" with frequent reiteration. "The *aha* is completely successful." (Literally, the *aha* flies away.)

83. Then the news was carried to the people outside of the temple, and everybody rejoiced that the king had obtained his *aha*, and all believed that the government would enjoy great peace and prosperity during the coming years.

84. The next morning, Kukolu, the high priest who had conducted the ceremony of *hulahula*, and who was the head-priest of the *luakini*, took it upon himself to join the priest of the *haku-ohia* idol in a fast (that priest was already doing a fast in honor of the god). So they fasted together during those days.

85. During the days of fasting they sustained themselves on the honey of banana flowers. The high priest was fasting in preparation for the ceremonies still remaining, the *haku-ohia* priest in order to make the idol into a real god (*akua maoli*).³⁶

86. On that same day (Kukolu) a report was made to the king that everything was going well (*hai ka haina*); the people were called together and a feast declared. (This reading is somewhat conjectural.) Four pigs were baked. One pig was laid upon the *lele* as a sacrifice, one was devoted to the use of the *kahuna*, one to the use of the *kahu-akua*, and one to the king and his men. The one for the king was said to be the pig for the *ilili* (for the pavement of pebbles).

87. On that day also a few men climbed up on the roof of the house, the *mana*, taking with them bundles (*makuu*) of white *tapa*, four in number, perhaps, which they fasted to the ridgepole, while all the priests, gathered beneath them, were reciting prayers. These two men were at the same time gesturing in pantomime as if performing a *hula* dance. This ceremony was termed *hoopii na aha limalima*.³⁷

88. Then came the *kahuna* who was to trim the thatch over the door of the *mana*. The name of the service which he recited was *kuwa*. After that an idol named Kahuanuu-nohonio-nio-i-ka-pou-kua was set up in the back part of the house, just opposite the door, at the spot where the post called *nanahua* had been planted, and thus ended this ceremony.

89. That night all the priests assembled at this place to perform a service of prayer, in which they were to continue until morning. This service was of a uniform character throughout. It had been committed to memory, so that, like a *mele*, the prayers and responses were all recited in unison. It was called *kuili*.³⁸

90. That night a large number of hogs, as many as 800 (*elua lau*), were baked; and the priests were separated into two divisions, one on this side and one on that side of the *mana*, each division taking part in the service alternately.

91. The pork also was divided into two portions, 400 of the hogs being assigned to the priests seated at one end of the building and 400 to the priests seated at the other end (*kala*). The priests and their men ate the flesh of the swine and continued their prayers, without sleep, until morning.

92. The next morning, which was Kupau, the *kuili* service was kept up, and continued without intermission all day. That day 400 pigs were served out to the worshippers, 200 (*elima kanaha*) to those at one end of the temple and 200 to those at the other end.

93. The service was still kept up during the ensuing night, 240 pigs being baked and served out – 120 to the priests at this end of the temple and 120 to those of the other end of the temple. The service continued all night.

94. During the next day, Olekukahi, the *kuili* service still went on, and 400 pigs were baked and divided out equally between priests at the two ends of the temple. Only the priests ate of this pork, not the chiefs; and that evening the *kuili* service of the *kahuna* came to a conclusion.

95. In the evening, the king and high priest went, as they had done before, to hold a service (*aha*) called *hoowilimoo*.³⁹ If this *aha* was successful, it was a most fortunate omen for *luakini*. The *kahuna*, having first besought the king for a piece of land for himself, then addressed the king in a hopeful and confident strain, saying:

96. “Your heavenly majesty (*e ko lanī*), you have just asked the deity for a blessing on the government, on yourself and on the people; and, as we see, the god has granted the petition; the *aha* is perfect. After this if you go to war with any one you will defeat him, because your relations to the deity are perfect” (*ua maikai ko ke akua aoao*).

97. That same night a priest conducted a ceremony called *ka-papa-ulua*.⁴⁰ It was in this way: the priest, accompanied by a number of others, went out to sea to fish for *ulua* with hook and line, using squid for bait.

98. If they were unsuccessful and got no *ulua*, they returned to land and went from one house to another, shouting out to the people within and telling them some lie or other and asking them to come outside. If any one did come out, him they killed, and thrusting a hook in his mouth, carried him to the *heiau*. If there were many people in the house, they resisted and thus escaped.

99. The next morning they put a long girdle of braided cocoanut leaves about the belly of the *haku-ohia* idol, calling it the navel cord from its mother.

100. Then the king and the priest came to perform the ceremony of cutting the navel string of the idol; and the priest recited the following prayer:

101. O ka ohe keia o ka piko o ke aiwailani.	This is the bamboo for the navel string of the wonderful idol.
O ka uhae keia o ka ohe o ka piko o ke aiwailani.	This is the splitting of the bamboo for the navel string of the wonderful idol.
O ke oki keia o ka piko o ke aiwailani.	This is the cutting of the navel string of this wonderful idol.
O ka moku keia o ka piko of ke aiwailani.	This is the serving of the navel string of the wonderful idol.

The priest then cut the cord, and having wiped it with a cloth, made the following prayer:

Kupenu ula, kupena lei,	Sop the red blood, wear it as a wreath,
Aka halapa i ke akua i laau waila.	To the grace and strength of this deity.

The king then uttered the *amana* and the service was ended. Compare chapter 35, section 14.

102. The next day, Ouekulua, took place for the great feast. The chiefs contributed of their pigs, as also did the people. The contributions were arranged on the following scale. The high chiefs, who had many people under them, gave ten pigs apiece; the lesser chiefs, with a smaller number of followers, provided fewer.

103. In the same way, the people gave according to their ability. When all the pigs had been contributed and oven-baked, the king and all the priests assembled for the ceremony of girding the *malo* upon the *haku-ohia* idol (*e hoohume i ka malo o ke kii haku ohia*).

104. The whole body of priests recited in unison the *pule malo*, a prayer relating to the *malo* of the deity:

Hume, hume na malo e Lono! Gird on, gird on the *malo*, O Lono!
 Hai ke kaula, hailea, hailono e! Declare war, declare it definitely, proclaim it by messengers!

At the conclusion of the prayer, they arrayed the idol in a *malo* and a new name was given to it, *Moi*, lord of all the idols. After that all the idols were clothed with *malo*, and each one was given a name according to the place in which he stood.

105. When the pigs were baked, a fore-quarter of each pig was set apart for the *kahuna*, which piece was termed *hainaki*. Bundles of *pai-ai* were also set apart for the *kahuna*, that having been the custom from the most ancient times.

106. When the chiefs and the people had finished feasting on the pork, the king made an offering to his gods of 400 pigs, 400 bushels of bananas, 400 cocoanuts, 400 red fish, and 400 pieces of *oloa* cloth; he also offered a sacrifice of human bodies on the *lele*.

107. Before doing this, however, the hair and bristles of the pigs were gathered up and burned and the offal removed; then all the offerings were collected in that part of the court about the *lele* which was laid with pebbles, after which the offerings were piled upon the *lele*.

108. Then the *ka-papa-ulua* priest (section 97) entered the *lana-nuu-mamao* with the *ulua* (this might be the fish, *ulua*, or it might be the man whom the priest had killed in its stead, as previously stated) and recited an *aha* which was of a different rite but belonged to his special service. When he had concluded his service he put to the king the question, "how was our *aha*?" The king answered, "It was excellent." "Most excellent indeed," said the priest to the king; the hook did not break; your government is confirmed." Then the *ulua* was laid as an offering upon the *lele*, and the *kahuna* went his way.

109. After that the *lana-nuu-mamao* was dressed with white *oloa*. That day was called the day of great decoration (*la kopili nui*), because of this decoration of the *lana-nuu-mamao*.

110. Towards evening that same day, the priests and the people, together with Kahoalii and the idols, made an excursion up into the mountains to procure branches of the *koa* tree. In reality, the *koa* branches had been brought to a place not far away. When they had gotten the branches of the *koa* tree, they returned with great noise and uproar,⁴¹ just as when they brought down the *haku-ohia* idol.

111. On their return from the expedition that same evening, they made the *koa* branches into a booth, and at the same time the *papa-ka-hui* was let down. That night, they sacrificed the *puaa hea* for the consecration of the booth of *koa* branches (*hale lala koa*).

112. In the morning, all the people assembled to eat of the *hea* pig. The fragments that were left over when they had finished their eating had to be carefully disposed of. It was not allowable to save them for eating at another time. On this occasion, Kahoalii ate an eye plucked from the man whose body had been laid as an offering on the *lele*, together with the eyes of the pig (*puaa hea*).

113. By the following morning, Olekukolu, these solemn services were concluded, whereupon all the people, priests, chiefs, and commoners went to bathe in the ocean. They took with them the *kaai* gods, which they planted in the beach. When they had finished their bathing they carried with them pieces of coral, which they piled up outside of the *heiau*.

114. On arriving at the *luakini*, a number of pigs were baked and all – chiefs, priests, and people – being seated on the ground in an orderly manner in front of the drum house, they performed the service called *hono*.

115. When everybody was in place, the priest who was to conduct the ritual came forward and stood up to recite the service called *hono*; and when he solemnly uttered the words, “O ka hoaka o ka lima aia iluna” (the palm of the hands are turned upwards), priests, chiefs and people, all obedient to the command, held up their hands and remained motionless, sitting perfectly still. If any one stirred, he was put to death. The service was tediously long, and by the time it was over the pigs were baked; the people accordingly ate of them and then went home to their beds.

116. On the morning of the morrow, which was Olepau, all the female chiefs, relations of the king, came to the temple bringing a *malo* of great length as their present to the idol. All the people assembled at the house of Papa to receive the women of the court. One end of the *malo* was borne into the *heiau* (being held by the priests), while the women chiefs kept hold of the other end; the priest meantime reciting the service of the *malo*, which is termed *kaioloa*.⁴²

117. All the people being seated in rows, the *kahuna* who was to conduct the service (*nana e papa ka pule*) stood forth; and when he uttered the solemn word *elieli* (completed), the people responded with *noa*. The *kahuna* said, “O Ia!” and the people responded with *noa honua* (freedom to the ground). The consecration of the temple was now accomplished, and the tabu was removed from it, it was *noa loa*.

With such rites and ceremonies as these was a *luakini* built and dedicated. The ceremonies and service of the *luakini* were very rigorous and strict. There was a proverb which said the work of the *luakini* is like hauling *ohia* timber, of all labor the most arduous.

118. The tabu of a *luakini* lasted for ten days, being lifted on Huna, the eleventh; and on the evening of the following day, Mohalu, began another service of a milder cult, a *hoomahanahana* service. This continued for three days; and with it terminated the special services of the king.

119. When the people and the priests saw that the services of the *luakini* were well-conducted, they began to have confidence in the stability of the government, and they put up other places of worship, such as the *mapele*, the *kukoea*, and the *hale-o-Lono*. These *heiau* were of the kind known as *hoouluulu* (*hoouluulu ai*, to make food grow) and were to bring rain from heaven and make the crops abundant, bringing wealth to the people, blessing to the government, prosperity to the land.

120. After this, the king must needs make a circuit of the island, building *heiau* and dedicating them with religious services; traveling first with the island on his right hand (*ma ka akau o ka mokupuni e hele mui ai*). This progress was called *ulu akau*, growth to the right. When this circuit was accomplished another one was made, going in the opposite direction, to the left. This was termed *hoi hema*, return on the left. It was likewise conducted with prayers to the gods.

121. All the *alii* below the king worshipped regularly each month and from year to year in their *heiau*.

122. If an *alii ai moku*, the king of an island, was killed in battle, his body was taken to the *luakini* and offered up to the gods by the other king (*hai ai*). [The following description reveals the numerous steps and intricacies involved in setting up a *luakini* such as

Kāwa'ewa'e. These sacred sites were crucial to maintaining religious, social, and political harmony, and were treated with the utmost care.]

123. In such ways as these did the kings and chiefs worship the gods in ancient times, until the time of Liholiho when idol worship came to an end.

NOTES ON CHAPTER 37

¹ Sect. 4. The *lana-nuu-mamao* was a tower-like frame, made of strong timbers, covered with *aho*, i.e., poles, but not thatched. It had three floors, or *kahua*, of which the lowest was named *lana*, the next *nuu*, and the highest *mamao*. The lowest was used for the bestowal of offerings. The second was more sacred; the high priest and his attendants sometimes stood there while conducting religious services. The third was the most sacred place of all. Only the high priest and king were allowed to come to this platform. When worship was being conducted at the *lana-nuu-mamao* all the people prostrated themselves. It seems probable that the structure was used as a sort of oracle.

² Sect. 5. *Hoo-mahana-hana* was a relaxation of the rigor of tabu, a resting spell in which the priests and workmen took it easy and indulged in some informalities. It was analogous to Refreshment Sunday in Lent. The following form of prayer was communicated to me as one that was used in entreating the gods to grant the dispensation for a period of *hoomahanahana*.

E Ku i ka lana mai nuu!	O god Ku, of the sacred altar!
E Ku i ka ohia lele!	O Ku of the scaffolding of <i>ohia</i> timber!
E Ku i ka ohia-lehua!	O Ku carved of the <i>ohia-lehua</i> !
E Ku is ka ohia-ha uli!	O Ku of the flourishing <i>ohia-ha</i> !
E Ku i ka ohia moewai!	O Ku of the water-seasoned <i>ohia</i> timber!
E Ku mai ka lani!	O Ku, come down from heaven!
Ku i ke ao!	O Ku, god of light!
E Ku i ka honua!	O Ku, ruler of the world!
E ka ohia ihi!	O magnificent <i>ohia</i> tree!
E Ku i ka lani-ka-ohia, ka haku-ohia!	O Ku of the <i>ohia</i> tree carved by a king, lord of <i>ohia</i> gods!
A ku, a lele, ua noa.	It lifts, it flies, it is gone.
A noa ia Ku.	The tabu is removed by Ku.
Ua uhi kappa mahana, Hoomahanahana heiau.	Robed are we in warm <i>tapa</i> , A warmth that relaxes the rigors of the <i>heiau</i> .
E noa! e noa!	Freedom! freedom!
Amama wale! Ua noa!	The load is lifted! there is freedom!

³ Sect. 5. *Aha* was often used to mean a prayer, an incantation, a service, or the successful performance of a service; the slabness and goodness of it in the present instance means a cord or mat braided out of a sea tangle found in the deep ocean far out to sea. Coconut fibre was combined with the sea-weed in braiding this *aha*. The sea-weed was perhaps more generally called *ahaaha*. This *aha* was used in the decoration of the shrine of Ku. The finding of the sea tangle with which to make the *aha* was, of course, more or less a matter of good luck. Hence the uncertainty as to the length of the *kapu*.

⁴ Sect. 9. Here is a sample of a prayer used on such an occasion:

Pule Hoouluulu ai, or Pule Hoomau

E Lono, alana mai Kahiki, He pule ku keia ia oe e Lono. E Lono lau ai nui, E ua mai ka lani pili Ka ua houlu ai, Ka ua houlu kappa. Popo kapa wai lehua A Lono i ka lani. E Lono e, kuua mai koko ai, koko ua. Ulua mai. Houlu ia mai ka ai, e Lono! Houlu ia mai ka ia, e Lono! Ka moomoo, kiheahepalaa e Lono! Amana. Ua noa.	O Lono, gift from Tahiti, A prayer direct to you, O Lono. O Lono of the broad leaf, Let the low-hanging cloud pour out its rain To make the crops flourish, Rain to make the <i>tapa</i> plant flourish. Wring out the dark rain clouds Of Lono in the heavens. Of Lono, shake out a net full of food, a net full of rain. Gather them together for us. Accumulate food, O Lono! Collect fish, O Lono! <i>Wauke</i> shoots and the coloring matter for <i>tapa</i> , O Lono! Amen. It is free.
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⁵ Sect. 14. *Kahuna kuhi-kuhi-puu-one* means, literally, the *kahuna* who pointed out the piles of sand. Sand was the material used in making a model, or plan, of a *heiau*.

⁶ Sect. 18. *Lua* means a pit; *kini*, 400,000. This undoubtedly gave the name to this kind of a *heiau*. Into this pit, it is said, the decayed bodies of the offerings were finally thrown. It is a singular thing that the name *luakini* should often be used to mean a Christian church, or temple, whereas the word *heiau* is never, to my knowledge, so applied. It seems to prove, however, that the *luakini* was the highest grade of *heiau*.

⁷ Sect. 20. Papa was a mythical character, wife of Wakea (Chapter 45). The *hale o Papa* was the place where the women chiefs had their services.

⁸ Sect. 21. *Lana-nuu* is the same as *lana-nuu-mamao*.

⁹ Sect 21. Images with eyes of pearl.

¹⁰ Sect 21. *Mo-i*, sovereign, was a word used in the days of the monarchy to designate the king or queen.

¹¹ Sect. 23. So called because it was of the same shape that sand would take if piled evenly in one spot, *i.e.*, of a conical shape, like the old-fashioned Sibley tent used in the army of the Potomac in the early years of the great Civil War.

¹² Sect. 23. The *hawai* was a long, gabled house in which the women priests of the order of Papa assembled with the king and priests to perform a service of purification (*pule huikala*), after which they separated to remain strictly apart until the *luakini* was *noa*. The prayer used on such an occasion was probably of the *moo-Lono* (rite of Lono), as follows:

E Lono i ka oualii, E Lono Uli moe, E Lono-Uli, lani, E Lono ka lana mai nuu, E Lon oi ka makaiwa,	O Lono, tender offshoot of deity, O Lono, consort of Uli, O Lono-Uli, the heavenly pair, O Lono, comforter of this fleshy temple, O Lono, the discerning one,
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E Lono i ke one lau ea, E huli e Lono, E kala e Lono. Kala ia na hala o ke alii kane, E kala i ka hala o ke alii wahine, E kala i ka hala o na kahuna, E kala i ka hala o ka hu, ka makaainanana. He pule kala keia ia oe Lono. Kuaa mai ka ua pono, Ka wai ola, ka alana pono. Pono i kukini ia Lono, Lono-a, ke akua mana. Amana. Ua noa.	O Lono, who abides with ones to the last sand, Turn to us, O Lono, Forgive, O Lono. Pardon the sins of the men chiefs, Pardon the sins of the women chiefs, Pardon the sins of the <i>kahuna</i> , Pardon the sins of the boor, the plebeian (<i>hu</i>). This is a petition to you for pardon, O Lono. Send gracious showers of rain, O Lono, Life-giving rain, a grateful gift, Symbols of Lono's blessing, Lono-a, the mighty god. Amen. It is <i>noa</i> .
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Response:

Ua noa ke kino. Kapu ia kou heiau, e ke akua. Hu a noa. Noa, noa, ua lele. A lele ia Lono, ke akua mana. Amana.	The bodies are purified. Your temple is tabu, oh god. Purification for the multitude. Purification, purification. Salvation by Lono, the mighty god. Amen.
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¹³ Sect. 26. The hair was mixed with red clay (*alaea*) and skewered on top of the head. The hair of another person, it is said, was sometimes added to the natural hair.

¹⁴ Sect. 27. The following is a prayer to purify the land.

E Lono ma ka uli lani, Eia ka ai, eia ka ia, He alana, he mohai, He nuhanuha, he alana ia oe e Lono! Houlu ia ka ai i keia ahupuaa, E ulu a maka-ole ke kalo, A eia ka puua, He puua kukui nau e Lono. E kui a ko ahu puua, A palahu ka ai i waena A o kau ola ia e ke akua. E Lono, nana i kou pulapula! Amama. Ua noa.	O Lono of the blue firmament, Here are vegetables, here is meat, An offering of prayer, a sacrifice, An offering of fat things to you, O Lono! Let the crops flourish in this <i>ahupuaa</i> , The <i>taro</i> stay in the ground till its top dies down, And here is the pig, A pig carved in <i>kukui</i> wood for you, O Lono. Let it remain on your district altar Until the vegetables rot in the fields. Such is they blessing, O god. O Lono, look upon your offspring! The burden is lifted! Freedom!
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¹⁵ Sect. 30. Uli was an *aumakua*, the chief agent of the *kahuna anaana*, a goddess often addressed as "Uli nana pono. Uli nana hewa." She was also employed to do other criminal work. In the expression "Lele Uli!" she is appealed to speed on her errand.

¹⁶ Sect. 30. The word *mu* here refers, it would seem, to Kane previously mentioned. The meaning is not very clear; but after sifting the various conjectures that have been offered, I

think the most plausible is that it adheres to the generic meaning of *mu*, as I take it to be “silent,” silence giving consent. In the rest of the verse, the word *mu* is used in a somewhat different sense. I take it that the *ai-ku*, those who eat standing, act unceremoniously; the *ai-a*, infidels, sinners, and all the other bad ones are now quiet, awed into silence. In consulting Hawaiian scholars as to the meaning of this word I found that they either had no opinion about it or that no two of them agreed. I have also found that the same person held a different opinion at different times. It should be added that *mu* also means a gentle murmur, like the buzzing of insects, as in the following extract from “Ka mele o ka Nalu mai Kahiki mai,” which is said to be an old mele revamped by a bard named Manu, who lived in the time of Kalakaua:

Mu olelo ke kai o Kuhia,	Faint murmurs the ocean at Kuhia,
Ke wa mai la la i ka laa-laau,	Spraying upon the shrubs,
A lohe ka huakai hele o Puuloa.	Heard by the travellers to Puuloa.

¹⁷ Sect. 30. *Eli* is to dig. The following instance of its use in a counting out rhyme sometimes used by children was quoted to me:

Eli-eli, ku-pala-la!
Nowai? nowai
Ka lima i hawa-hawa?
No kahupoka.

The above is repeated in connection with a play, or more properly, a trick that is played on some novice. A number of piles of sand are heaped up, in one of which is hidden something foul or disagreeable. To each of the players is assigned a heap of sand, the one containing the filth being given to the green-horn or simple one; at the word, each one sets to digging while one repeats the ditty. When the unfortunate one soils his hands, his name is at once called in the final line.

¹⁸ Sect. 32. *Lupalupa* means full of leaves, shaggy, flourishing; it has reference also to the branch in the hand of the priest.

¹⁹ Sect. 32. Hawaiian authorities are able to throw no light, and conjecture, but little light upon the true meaning of *Ia*. It is evidently the name or appellation of, or stands to represent, some deity. (The only name of a deity corresponding in form to this is the Hebrew JAH. Ps. 68: 4.)

²⁰ Sect. 34. *Malu koi*: After a prayer the axes were laid within the lintels of the door of Mana and a sacrifice was offered to three fowls. The following is a *pule malu koi*:

E Kane uakea,	O Kane, the blond one,
Eia ka alana,	Here is an offering of prayer to you,
He moa ualehu,	A snuff-colored fowl for you,
He moa uakea,	A fowl of a light-yellow color,
He moa ulahiwa.	A fowl of a red color.
He alana keia ia oe Kane,	These are offerings for you, O Kane,
No ke koi kalai,	for the benefit of the carpenter's adz,
Koi kua,	The woodman's adz,
Koi kikoni,	The little adz,

Koi lou,	the reversible adz,
He koi e kai e kalai ai ke kii,	An adz to finish off the image,
He koi ou e Kane, ke akua ola.	The image of you, O Kane, the god of life.
Ke akua mana,	The god of power,
Ke akua noho i ka iuiu,	The god who dwells in the unapproachable heavens,
Ke akua i kea o polohiwa.	The god surrounded with clouds and darkness.
E ike i au ia...	Look upon me,
Ke kahuna kalai kii,	The <i>kahuna kalai-kii</i> ,
A ku ke kii o Lanaikawai,	Until the image of Lanaikawai is set up,
O ka wai ola loa a Kane.	Water of eternal life of Kane,
E Kane eia kou hale la, o Mauiola	O Kane, here is your house, Mauiola.
E ola ia..., ke alii heiau,	
E ola i au ia..., ke kahuna,	
E ola i na kahuna kapu heiau a pau,	
He ai kapu ka moa o ke alii.	
E ai noa ka moa o ke akua me ke kahuna.	
A lele, ua noa.	
A noa i ke akua.	
Amama.	

²¹ Sect. 38. *Pule aha* was one of that class of prayers for the ceremonial perfection of which absolute silence and freedom from disturbance was essential. The worshippers and the spectators, whether within the same enclosure or outside of it, must preserve the most profound silence and attention. The charm of the service would be broken by the crowing of a cock, the barking of a dog, the squeaking of a rat, or the hooting of an owl. The intrusion of a woman was strictly forbidden and was punishable by death. An *aha* prayer was a direct appeal to heaven to indicate by certain signs and phenomena the answer to the petition. Rain, thunder and lightning were generally regarded as unfavorable omens.

²² Sect. 38. *Mau-haa-lelea* means an entire turning away, repentance.

²³ Sect. 42. Kua-mu, Kua-wa and Kua-wao were gods of the woodlands. It was Kua-mu who felled a tree in silence. Kua-wa did it with noise and shouting. Kua-wao, not mentioned in this prayer, felled a tree anywhere and everywhere and as he pleased. The tumultuous and joyous rout down the mountain was a farewell to these woodland deities.

²⁴ Sect. 52. The following is a prayer such as is called *pule o kai-a-pokea*:^a

E Kane, e Lono i ke kai uli,	O Kane, O Lono of the blue sea,
Ke kai kea, ke kai haloiloi,	The white sea, the rough sea,
Ke kai nalu-poi,	The sea with swamping breakers,
Ke kai, e Ku, e lana i Kahiki.	The sea, O Ku, that reaches to Tahiti,
He kai kapu,	The sacred ocean,
He kai a po-kea.	Sea of the bleached skull.
E apo i ka hua	Take of the sea foam
Oia ke kai e lolo ai,	That is the brine wherewithal to consecrate,
Ka ohia, ohia Kua-mu,	Consecrate the <i>ohia, ohia</i> of Kuamu, of the woodland
Kua-wao, Kua-wa, Kua-lana,	deities, Kua-wao, Kua-wa, and Kua-lana,
E kaa ai ke akua kaei	That the <i>kaei</i> god may make his circuit

Appendix A: Luakini Heiau

O ke kahua aha-ula ^b kuhonua,	About the pavement guarded by the <i>aha-ula</i> obedient only to royalty.
O ka ohia haku-ohia, ^c	The <i>ohia</i> , god image of <i>ohia</i> .
Ke kii e lele ai a pau ka aina, land,	God image that shall fly to the conquest of the whole land,
Nana e kulai ka hoa paio.	That shall overthrow all enemies.
E Kane, eia kou kai ola,	O Kane, here is your life-giving brine,
Ai ia, inu ia, penu ia.	To be mixed with food, to be drunk, to be sopped up.
E ola i ke alii, e ola i na kahuna,	Long life to the king, long life to the <i>kahuna</i> ,
E ola i na mea a pau i moe-kapu i ka heiau!	Long life to all true worshippers in the temple!
A lele! A noa!	It is lifted! There is freedom!
Amama! Ua noa!	The load is removed! Freedom!
Noa ia Kane, ke akua ola!	Freedom through Kane, the life-giving one!

^a Probably from *poo kea*, white head, *i.e.*, a bleached skull. The dish that held the brine was a skull.

^b The kind of *aha* here meant is the cord braided with much art, of many colored strands – one of them red, *ula* – which was stretched as a mystic protection about the residence of an *alii* with a *kapu*. It was claimed that if a tabu chief came to it, the *aha* would of itself fall to the ground, out of respect due to the tabu of the chief; but the strength of the chief's tabu must be such as to warrant it. Of course it would be death to anyone who laid unconsecrated hands upon it.

^c *Haku-ohia* was a name applied to the idol called *moi*, spoken of in Section 21, which was carved from *ohia* wood. *Haku* means lord or head.

²⁵ Sect. 53. *Hopu* (seize) was a word of command uttered by the officiating priest, the meaning being, “take gods,” as in a military command, for instance, “carry arms.”

²⁶ Sect. 55. Needless to say, the difficulties of this passage are doubled by the inaccuracy of the etymology and absurdities of punctuation. The language is highly figurative, the key to its meaning being found in the veiled allusions to the nakedness of the man god, Kahoalii. *Ihe* is a euphemism for *membrum virile* of Kahoalii. Luakapu is a synonym of Kahoalii. *Lukaluka* means a fold of the *tapa* cloth worn by priests and others about the loins in a manner similar to the *pa-u* worn by women. *Hookama* is to adopt as a son. *Haalaele* means a house, an archaic word.

²⁷ Sect. 56. After *omamalu* in the native text, Malo omitted *ia* Kahiko. They belong to the verse, I am informed.

²⁸ Sect. 58. In the literal form this is quite meaningless. It should be as follows: “Kukui, kahiko, i ke lani au, wai la make o manalu.” Kahiko was a king of Hawaii in ancient times. Tradition says of him that he was at first a good king. A head showed itself in the heavens and a voice was heard from it asking the question, “What man is there on earth who is just and upright in his life?” (*Owai ke kanaka olalo i pono ka noho ana?*) The people answered “Kahiko.” Later in his reign, when he had taken to evil ways, the same head appeared and asked the question, “What man is there on earth who leads a bad life?” Again the people answered, “Kahiko.” “What is his fault?” asked the voice. “He commits murder; he robs the people of their hair; his life is corrupt, and now he instructs the people to pray to him, that all power is his.” Manalu is said to have been the high priest of Kahiko. He is described as a very selfish person,

not contented to suffer another priest to conduct a service without his interference and impertinent disturbance, grimacing and making insulting gestures. His fellow priests finally raised heaven and earth and besought the king that he might be put to death.

Aprpos of this the following *pule* has been communicated to me:

Make Kane ia hii,	Kane wearies himself to death with care,
Hii luna i ka lani o Kane.	Care for the government of his own heavenly kingdom.
Hii ka honua ia Kane,	The earth is governed by Kane,
Hii kea o opulepule,	Kane cares for the mottled cirrus clouds.
Pule ola i o Kane e.	Pray to Kane for life.
O Kane ke akua ola.	Kane is the god of life.
Amama Kahiko ia Kane.	Kahiko said <i>amama</i> to Kane.
E ola o Kane!	Hail Kane!
Amama. Ua noa.	Amen. It is <i>noa</i> .

Response (?):

Noa o Kane, ke akua o ke kupulau,	The freedom of Kane, god of the shooting herb.
Io welo Kahiko o Kane,	Through Kahiko, successor of Kane,
O Kane i o Manaele.	Darkened were the heavens.
Maelele ka lani,	Kane transmitted it to Manaele.
Ka lani, ka honua, ua kapu no Kane.	The heavens, the earth, are sacred to Kane.
Amama. Ua noa.	Amen. It is <i>noa</i> .

²⁹ Sect. 61. This phrase I have translated, “a priest ratified it,” is so ungrammatically put in the text that some ingenuity is necessary to make any sense at all of it. The writing of the words is in a different hand from the rest of the text. I am told that it was the custom, when land was made over to anyone, for a priest to ratify the transaction by some appeal to heaven.

³⁰ Sect. 61. The response made by the man puts one in mind of the passage, “The earth is the Lord’s, and the fullness thereof.”

³¹ Sect. 64. *Hihia* literally means entanglements. Perhaps in the present instance it might better be translated burdens. The word *kai*, or its reduplicated form *kaikai*, as here, literally means to bear, to carry.

³² Sect. 67. This expression is said to be very old.

The following example of its archaic use was communicated to me:

Aulana auau ka aho,	Above the level of the ground floats the thatch pole,
Hoia kupakupa ka uki wailana!	Lash with a tight loop the <i>uki</i> leaf to this thatch pole!
Lanalana, hauhoa ka aha	Bind and lash the cord firmly
I ke kua o ke oa o ka hale o Lono!	To the back of the rafters of Lono’s house!
E lono, eia ko hale la, o Mauiola!	O Lono, here is a house for you, the house Mauiola!
He hale ka-uki.	A house finished with <i>uki</i> leaf.
E hoano, hoano e Kane!	Consecrate! consecrate, O Kane!
Hoano i ko hale!	Consecrate this house!
He luakini kapu,	A sacred temple,
He ana nau e Kane!	A cave temple for you, O Kane!
E ola! e ola! e ola Kane!	Life! life! life through Kane!

Hoano! Ua noa!

Consecrated! The work is done!

³³ Sect. 70. *Makaiwa* means pearl-eyed, a term descriptive of the images.

³⁴ Sect. 72. That a criminal was chosen for this sacrifice is not to be credited. In order to fulfill this function worthily, the victim must be perfect and blameless. An infant, or an aged person, a female, or one in anywise deformed would not fill the bill.

³⁵ Sect. 78. The following is communicated to me as a *pule hulahula*:

Kai-ku ka lani, kakaa ka honua, alaneo ke kula. ^a	Resplendent the heavens, crystalline the earth, mirror-like earth's plane,
Ua moa kai a, ua alaneo ka lani.	The milky way inclines to the west, refulgent are the heavens.
Hoomamalu ka lani ia.	The heavens are guarded by the milky way.
E Ku! e Kane! e Lono!	O Ku! O Kane! O Lono!
E Lono i ka po lailai,	O Lono of the clear night,
Kuua mai ka alaneo!	Keep the brightness of the heavens undimmed!
Eia la he mohai,	Here is an offering,
He puua no ka aha maka, ^b	A swine sacrificed for this performance in public
He aha hula no ke alii,	The celebration of a <i>hula</i> , a <i>hula</i> in honor of the king,
No ka hale o ke akua.	In honor of the house of the god.
Ea ka lani, ea ka honua,	The king comes forth, the people gather together,
Ea ia Kane ka waiola,	Kane comes with the water of life,
E ola i ke kini o ke akua!	Life through the multitude of the gods!
Hoano! hoano! ua ola! ola!	Life through the king! life through the gods!
Eia ka mohai la, he puua!	Behold the sacrifice, a pig!
A make ka puua, nau e ke akua!	Sacrificed is the pig, it is thine O god!
A noa! Ua ola!	It is done! We are saved!

^a When the heavens were clear and free from clouds it was a good omen.

^b This performance was called *aha maka*, a performance for the eye, *maka*. All previous performances had been in secret and for rehearsal.

³⁶ Sect. 85. The carving of an idol did not produce a real god, *akua maoli*. To accomplish this sacrifice, worship, prayer, *hoomana*, were required. It was a work of time, patience, and faith.

³⁷ Sect. 87. *Linalina* in the native text, but said properly to be *limalima*, so called from the finger-like tassels or points which hung from it. It was a decorative, net-like arrangement of cords, fringed with tassels (*limalima*). This was hung over the ridge-pole. The prayer which was uttered was said to be as follows, and was called *pule kuua*.

E Ku i ka lani!	O Ku in the heavens,
Ke aha o makuu-halala. ^a	Behold the cord done into the all-including knot.
E Ku i kaupaku o Hanalei, makuu oloa,	O Ku of the mystic, wonderful ridge-pole of Hanalei,
E pu, e hikii, e paa ia oloa.	Bind, tie with the knotted <i>oloo</i> .
O oloa hulihia ka mana.	It is the <i>oloo</i> that shall overturn the power.
He mana puki no ka aha oloa.	Power is wrapped up in the <i>oloo</i> cord.
E mana i ke akua.	Let power go forth to the god image.
E oki i ka piko o mana.	Cut now the navel cord of the house <i>mana</i> .
Ua mana, man aka aha linalina	Virtue, virtue resides in the knotted <i>oloo</i> cord

I ka hale o ke akua o Kane.	That decorates the house of god Kane.
Okia ka piko!	Cut now the navel string!
A noa! ua noa!	Done! It is done!

^a S. Percy Smith finds in this a reference to the ancient Maori saying, “Here ki te here o Matuku-tako-tako, te taea te wewete.” (Bind with the binding of Matuku-tako-tako, which cannot be undone.) It is a long story.

³⁸ Sect. 89. *Kuili* means, I am told, that everyone talks, or prays at once. Whether this applies only to the priests or also includes the people, I am not able to say.

PULE KUILI

Kuili ka pule lani o Ku!	Unite not in the prayers of the king to Ku!
E Kane, e Lono i ka ouli lani,	O Kane, O Lono of the portent-showing heavens,
Lani kuwa, e Kane,	Heavens that have been lifted up, O Kane,
Kane ke akua mana,	Kane the god of power,
Mana e hehi ka aha hulahula.	Power to foot it in the assembly of the dancers.
Kuili ia ka leo paa,	Restrain now the voice and suppress it,
Ka leo wi, ka leo ohe,	The voice of hunger, the sound of the bamboo, the
sound	
ka leo ohia	of the <i>ohia</i> trees,
Haku-ohia o uka e.	<i>Ohia</i> god of the mountain forests.
Kuili ia i paa!	Lift up your prayers that they may be approved!
E paa i ka lani!	Approved in the heavens!
A mana i ka lani!	Have power in the heavens!
A ulu i ka lani!	Flourish in the heavens!
A lu i ka lani, lani ku!	Scatter blessings from the heavens, the upper heavens!
Oili ka pule.	The prayer unrolls itself.
Kuili! kuhano!	The prayer is uttered; Kane reigns over all!
He lani pakaua kukahi.	A heaven that is a walled stronghold.
Ua noa! E hui ka pule!	The prayer is finished! Let all pray!

³⁹ Sect. 95. In this ceremony a long line of sinnet made of coconut fibre was hung about the inside of the house *mana*, from which were suspended a number of strips of *tapa* of the sort called *mahuna*. The literal meaning of the phrase *hoowilimoo* is to twist the serpent or lizard. But symbolical expressions that have made departures as far from the original starting point as the serpent land of Asia is from serpent free Hawaii, have as a rule precious little of the original literalism left in their meaning. The following was communicated to me:

PULE HOOWILIMOO

Hauli lani ka aha ka apipi o Kane,	From heaven fell the <i>aha</i> to the spot favored by Kane,
O Kane ulu lani, hakoikoi ka lani,	Kane who arched the heavens, mottled with clouds
	the whole heavens,
Lani ku, ka alana o aha	Gift of the sacred red <i>aha</i> of <i>hoowilimoo</i> of
ula hoowilimoo,	the upper heavens,
Moo lani, moo lani aukuku	Heavenly portent! heavenly portent!

ka honua.	that fills the earth with blessings.
Ua wela ka hoku Kaelo ia Makalii,	The star, Kaelo, blazes in the season of Makalii,
Ka auhuhu paina, O hoowilimoo ka aha nani.	The bitter <i>auhuhu</i> scorched to brittleness, <i>Hoowilimoo</i> is the beautiful service.
Nani Kukulu o Kahiki, Ua nani ka aha,	Beautiful is Tahiti, Favorable are the omens for the service.
Ua moe kaoo ka leo kanaka.	The voice of the multitude is at rest.
E kai ka aha no ke alii, He aha noa, he aha lele, He aha kapu, he aha ku.	Now must we perform the service for the king. An acceptable service, one that reaches its end, A sacred service that shall not fail.
Kulia ka aha no ke alii. A make ka hoa paio.	The assembly stands before the king. His enemies shall melt away before him.
A lu, a ola, ola ka aina Ia oe Kane, ke akua ola!	Pour abundance, life, life to the land Through you, Kane, the god of life!
E ola iau, ia (Mahoe) ke alii!	Life to me, to (Mahoe) the king!
Ua noa! Ua kai ka aha!	It is accepted! The service is accomplished!

⁴⁰ Sect. 97. This peculiar custom, seeming relic, surviving echo perhaps of old-time, south-sea cannibalism, was called by this name because, in going out, the rowers who occupied the forward part of the canoe were in the habit of striking (*ka*) vigorously against the side (*papa*) of the canoe. At the same time the one who held hook and line sat in the stern. The name *ka-papa-ulua* was also applied to the *kahuna* who hooked the human *ulua*. In going through the village the *kahuna* used the same means to wake up and bring out the human prey as he did in the ocean. He struck with his paddle on the door of the house at the same time calling out some blind phrase perhaps, as *haha ulua*, *haha mano*, signifying a big catch of that kind of fish. Then the occupants of the house would, if green, run out to see the sight and thus give the murderous priest his opportunity. A dead man, not a woman, with a hook in his mouth answered very well as an *ulua*. In fact it was more desired by the priests, though it was euphemistically called by the same name.

⁴¹ Sect. 110. The occasion of bringing down the *koa* tree, like that of fetching the *haku-ohia* idol from the mountains, was a scene of riot and tumultuous joy, like the procession of a Bacchic chorus or shouting the harvest-home. The following was communicated to me as a sample of the wild song and chorus shouted by the multitude on such an occasion:

	Stand up in couples!
One: I kuu mau!	It moves, the god begins to run!
All: I ku wa!	Stand at intervals!
One: I ku mau!	Stand in couples!
I ku huluhulu!	Haul with all your might!
I ka lanawao!	Under the mighty trees!
All: I ku wa!	Stand at intervals!
One: I ku lanawao!	Stand up among the tall forest trees!
All: I ku wa!	Stand at intervals!
I ku wa! huki!	Stand at intervals! and pull!
I ku wa! ko!	Stand at intervals! and haul!

I ku wa a mau!	Stand in place! and haul!
A mau ka eulu!	Haul branches and all!
E huki, e!	Haul now!
Kulia!	Stand up my hearties!
Umia ka hanu!	Hold your breath now!
A lana, ua holo ke akua!	It moves, the god begins to run!

⁴² Sect. 116. Any *tapa* that was bleached with sea water was called *kai-oloa*. The following was communicated to me as a *pule kaioloa*:

Malo lani kailoloa, Ka malo o ke akua, o Uli! Uliuli kai, e Hina! Hinaluuloa ka malo o Hina. He ua lele ka malo o Ku, Ku i ka lalani heiau. Aulana ka malo o Lono! Hume! hume ka malo o Lono-kaiolohia! E lei ana ka malo o Lono-honua.	<i>Malo</i> of the king, bleached in the ocean, <i>Malo</i> of god Uli! Dark blue of the sea, O Hina! Bright red the <i>malo</i> of Hina. Lace-like as a mist-scud the <i>malo</i> of Ku, Ku, the god of many temples. Pass between the thighs the <i>malo</i> of Lono! Gird! gird on the <i>malo</i> of Lono, the variegated! They are bearing on their shoulders the <i>malo</i> of Lono-honua.
Honua-ku-kapu ka malo o Io-uli. Ka malo puhano, kukapu, e Kane-auhaka, Hume ia ko malo! Eia la he malo kapu, he oloa! Oloa lani ke ola o na lii wahine. Hikii ia a paa i ka heiau, Heiau ku, heiau lani, No ke alii, no Umi a Liloa. E ola ke alii! E lanakila kee alii a make ka hoapaio! E hume ke kii i ka malo! Ua noa! a noa ka maka, maka aha o ke alii!	Decorated at its end it the <i>malo</i> of the bird god, Io-uli. Leaf embroidered the <i>malo</i> of long-limbed Kane, Gird on your malo! Lo, here is a sacred <i>malo</i> , bleached by the ocean! The sacred <i>malo</i> of the king is life to the women chiefs. Bind it fast to the <i>heiau</i> , An ordinary <i>heiau</i> , a royal <i>heiau</i> , A <i>heiau</i> for the king, for Umi, son of Liloa. Long live the king! May he be victor, and put down all his enemies! Array now the god image in the <i>malo</i> ! It is accepted, the ceremony, the ceremony of the king is accepted!

Appendix B: Mo'ikeha

The following passage is extracted from Fornander's *Collection of Hawaiian Antiquities and Folk-lore*, Vol. IV. This passage details Mo'ikeha, the ali'i nui during the period of 'Olopana's mo'olelo with Kamapua'a.

Mo'ikeha was an ali'i nui (high chief) from Moa'ulanuiakea, Tahiti, where he lived with his wife Kapo. They had a child named La'amaikahiki.¹

When 'Olopana and Lu'ukia arrived in Tahiti,² Mo'ikeha became infatuated with Lu'ukia and soon after took her as his lover. 'Olopana harbored no ill feeling toward Mo'ikeha; in fact, he approved of his friend's affair with his wife. 'Olopana was appointed the highest officer (kuhina nui) of the lands of Tahiti.

At about this time Mua lusted after Lu'ukia, but she discouraged his approaches, even though he pressed his suit with great vigor. When he saw that he was rejected while Mo'ikeha received Lu'ukia's favors, he decided to cause trouble between them and to persuade Lu'ukia to leave Mo'ikeha.

Mo'ikeha was very fond of athletic sports and often joined games such as pahe'e (sliding or skipping a wooden dart for distance) and 'olohu (rolling a stone wheel for distance). At the fields where games were held, people gathered to cheer the winners. Lu'ukia often heard the commotion and cheering. One day Mua happened to be with Lu'ukia when he heard the cheering and said:

"Lu'ukia, do you hear the cheering at the ali'i's games?"

Lu'ukia answered: "Yes, I hear the cheering."

"I don't think the cheering means well for you. No, Mo'ikeha is publicly defaming you."

Lu'ukia believed this lie and grew angry at Mo'ikeha. She decided not to make love with him anymore and ordered her attendants to bind up her private parts (wahi huna) with cord to prevent him from reaching them. Lu'ukia was corded from her waist down to mid-thighs, and the ends of the rope were then hidden in this lashing so it couldn't be undone. This lashing, called the "pa'u of Lu'ukia," is used to secure the covers of water-gourds and also to lash together the parts of single- and double-hulled canoes.

After Mo'ikeha had enjoyed himself in the games, he returned home and met Lu'ukia. Mo'ikeha suspected from Lu'ukia's face that something was wrong, so he began to wonder why she was unhappy.

That night, while preparing to sleep, Mo'ikeha was surprised to find Lu'ukia still wearing her pa'u (skirt), which had not been her habit when they were lovers. He didn't say anything,

Appendix B: Mo'ikeha

however. He bided his time, intending to find out in good time the reason for Lu'ukia's unusual behavior. On the fourth night Lu'ukia still wore the pa'u to sleep. The next night, Mo'ikeha unfastened the pa'u, and saw the lashing over her private parts.

"Why are you bound up like this?" Mo'ikeha asked.

Lu'ukia refused to speak to him. From evening until midnight Mo'ikeha urged her to tell him the reason for this lashing, but she remained silent. All through the rest of the night Mo'ikeha pondered over this recent change in Lu'ukia. He complained: "I don't understand you. Here we were living happily, and now you won't even speak to me. What have I done to make you bind yourself up like this?"

There was no answer.

"Very well then, since you no longer want me, I'll go to elsewhere."³

Mo'ikeha directed his foster-son Kamahualele to make ready a double-hulled canoe. "Let's go to Hawai'i," he said. "Here I'm tormented by my love for Lu'ukia; when the ridge-pole of my house Lanikeha disappears below the horizon, I'll no longer think of Tahiti."

Kamahualele directed the paddlers to get the double-hulled canoe ready. Mo'ikeha planned to take his sisters, Makapu'u and Makaaooa, his two younger brothers, Kumukahi and Ha'eha'e, his priest Mo'okini, and his prominent men (na kanaka koikoi) – navigators (ho'okele), favorite priests (kahuna punahele), and his lookouts (kiu nana), who would spy out land.

Early one morning at dawn, at the rise of the navigation star (ka hoku ho'okelewa'a; possibly Sirius), Mo'ikeha boarded his double-hulled canoe with his fellow voyagers (hoa holo), and left Tahiti.

From the morning of departure until sunrise when they first beheld Hilo all went well (holo pono). Kamahualele stood up and celebrated their arrival in Hawai'i with a mele:

Behold Hawai'i, an island, a man^a
 A man is Hawai'i
 A man is Hawai'i
 A child of Kahiki
 A royal bud from Kapa'ahu^b
 From Moa'ulanuiakea Kanaloa
 A descendant of Kahiko and Kapulanakehau
 Born of Papa,^c
 The daughter of Kukalani'ehu and Kahakauakoko^d
 Sprouts of land in a line
 Placed alike to the East, to the West
 Arranged evenly in a line
 Joined to, joined from Holani

Appendix B: Mo'ikeha

Kaialea, the seer, circumnavigated the islands
 Left Nukuhiwa behind; landed on Borabora
 Kahiko is the source of land
 He divided and separated the islands
 Severed the fish-line of Kaha'ie
 Cut by Ku-Kanaloa
 Divided up was the lands, the islands
 Cut by the sacred bamboo knife of Kanaloa
 Of Haumea Manukahikele
 Mo'ikeha is the chief who will live there
 My chief shall dwell in Hawai'i
 Life! Life! Set life free!
 Long live the chief, the priest,
 Long live the seer, the servant,
 They shall dwell quietly in Hawai'i
 The grandchildren will sing out on Kaua'i
 Kaua'i, the island
 Mo'ikeha, the chief.
 [The Hawaiian text and notes to the chant follow:

Eia Hawai'i, he moku, he kanaka
 He kanaka Hawai'i, e –
 He kanaka Hawai'i
 He kama na Kahiki
 He pua ali'i mai Kapa'ahu
 Mai Moa'ulanuiakea Kanaloa
 He mo'opuna na Kahiko, laua o Kapulanakehau
 Na papa i hanau
 Na ke kamawahine a Kukalani'ehu, laua me Kahakauakoko
 Na pulapula 'aina i paekahi
 I nonoho like i ka Hikina, Komohana
 Pae like ka moku i lalani
 I hui aku, hui mai me Holani
 Puni ka moku o Kaialea ke kilo
 Naha Nu'uhiwa, lele i Polapola
 O Kahiko ke kumu 'aina
 Nana i mahele ka'awale na moku
 Moku ke aho-lawai'a a Kaha'i
 I 'okia e Ku-Kanaloa
 Pauku na 'aina, na moku
 Moku i ka 'ohe kapu a Kanaloa
 O Haumea Manukahikele
 O Mo'ikeha ka lani nana e noho
 Noho ku'u lani ia Hawai'i – a –
 Ola! Ola! O Kalana-ola!
 Ola ke ali'i, ke kahuna;

Appendix B: Mo'ikeha

Ola ke kilo, ke kauwa;
Noho ia Hawai'i a lulana;
A kani mo'opuna i Kaua'i
O Kaua'i ka moku – a –
O Mo'ikeha ke ali'i.

a. Kamahualele's chant is from Fornander, Vol. IV, pp. 20-21.

b. In the story of Opuukahonua, a fisherman named Kapuheeuanui from Kapa'ahu fished up coral rocks, which, after being blessed, named, and thrown back into the water, grew into islands and became chiefs. ("That is a man, a chief...") Thus, were named and formed Hawai'iloa, Maui'iloa, O'ahunuiala'a, and the rest of the islands of Hawai'i. (Fornander, Vol. IV, pp. 20-23; see also Makuakaumana's chant concerning Hawai'i in Pa'ao.)

c. According to some traditions, Kahiko ("Ancient") was the first ancestor, and Kapulanakehau was his wife; Wakea was their son and Papa was his wife. They were born in Kahiki (Malo 4-5).

d. Kukalani'ehu (k) and Kahakauakoko (w) are given as the parents of Papa in the Kumuhonua genealogy (Fornander, Vol. VI, 279); Kukalani'ehu is descended from Hawai'iloa, who, according to the account in Fornander, discovered and settled Hawai'i; Kahakauakoko is "the sixth descendant" of Makali'i, one of Hawai'iloa's navigator.

e. See the Tahitian story of Tafa'i for the tradition of Tafa'i's fishing up the Tuamotus, discovering Hawai'i and attempting to drag the islands of Hawai'i closer to the islands of Tahiti-nui.]

After the canoe landed at Hilo, Kumukahi and Ha'eha'e were charmed by the 'aina (land) and told Mo'ikeha they wanted to remain there, so Mo'ikeha let them off the canoe.

Soon after, Mo'ikeha set sail from Hilo, passing along the north coast of Hawai'i until he arrived at Kohala. Mo'okini and Kaluawilinau wanted to reside at Kohala, so Mo'ikeha put them ashore there. He sailed on to the east coast of Maui and landed at Hana. Honua'ula wanted to reside there, so he was allowed to remain behind. Mo'ikeha sailed on. When he was between Lana'i and Moloka'i, directly off of Kawela, Kamahualele spied a fishing canoe outside Kala'au Point, so he steered Mo'ikeha's canoe there. Arriving at the fishing canoe, he found it belonged to Kakakauhanui, who came there regularly.

When Mo'ikeha saw this large, well-built man, who appeared powerful and fearless, Mo'ikeha befriended him. Mo'ikeha told him: "I'm going to leave you here, but when I find a place for us to live, I'll send someone to bring you to me."

Mo'ikeha and his people continued on their journey. Arriving at O'ahu, Mo'ikeha's sisters Makapu'u and Makaa'oa said: "We wish to reside here, where we can see the cloud drifts of Tahiti."

Appendix B: Mo'ikeha

So Makapu'u and Makaaoa were allowed to remain on O'ahu, thus leaving Mo'ikeha, his foster-son Kamahualele, the two paddlers Kapahi and Moanaikaiawe, Kipuniakamau and his companion, and the two lookouts, Kaukukamunolea and his companion, to continue on the journey.⁴

Mo'ikeha left O'ahu and sailed to Kaua'i, landing at Wailua. It was dark by the time they arrived, so they did not land, instead, mooring their canoe offshore. Early the next morning the people saw this double-hulled canoe floating offshore with the kapu sticks of a chief aboard. The canoe was brought ashore and the travelers got off. Meanwhile the locals were gathering in a crowd to go surf-riding at Ka-makaiwa. Among them were the two daughters of the ali'i nui of Kaua'i, Ho'oipoikamalanai and Hinuu.

Mo'ikeha and his companions saw the crowd and followed along to take part in the morning exercise. Mo'ikeha was a handsome man with dark reddish hair and a tall, commanding figure.

When Ho'oipoikamalanai and her sister saw Mo'ikeha, they immediately fell in love with him, and they decided to take him for their husband. Mo'ikeha in the meantime was also struck with the beauty and grace of the two sisters, and he, too, fell in love with them and decided to take one of them to be his wife. After enjoying the surf for a time, Ho'oipoikamalanai and her sister returned home and told their father about the new arrival and said: "We wish to take that young chief as a husband for one of us." The father approved.

Orders were issued that Mo'ikeha be brought to the house of the two ali'i women. Mo'ikeha and his company were sent for and brought in the presence of the king. The love of these young people being mutual, Ho'oipoikamalanai and Hinuu took Mo'ikeha to be their husband. Mo'ikeha became ali'i nui of Kaua'i after the death of his father-in-law.

Mo'ikeha had five children with Ho'oipoikamalanai and Hinuu, all boys. Ho'oipoikamalanai's children were Umalehu, Kaialea, Kila; Hinuu's children were Kekaihawewe and Laukapalala. In the genealogy from which these names are taken, Mo'ikeha's descendants are given down to the reign of Manookalanipo, who became the ancestor of the chiefs of Kaua'i and Ni'ihau. But none of those who know anything about this genealogy can produce a direct line with any degree of accuracy.⁵

Mo'ikeha worked to make his two wives and five children happy, giving his undivided attention to the bringing up of his boys. He thought no more of Lu'ukia, but after a while, he began to feel a yearning desire to see his son La'amaikahiki, his child by his first wife Kapo. So he called his five sons together and said to them: "I'm thinking of sending one of you boys to bring your elder brother to Hawai'i." His boys became greatly excited, each one shouting: "Let me go! Let me go!!"

When Mo'ikeha saw there would be much contention among his sons, he devised a test to determine who should be chosen to go to Tahiti.

He told his sons: “Let each of you bring a ti-leaf canoe and sail it across the river, one after another. The one whose canoe lands between my thighs shall be the one to go and bring your brother here.”

Then he took the boys to the river in the order of their birth. He proceeded to the opposite bank of the river and sat down at the edge of the water facing the wind. Meanwhile the boys proceeded to a point right across and upwind from their father. The oldest boy set his canoe down in the water and aimed it toward the desired point, but it missed the mark. The second boy set his canoe down in the water and it, too, missed the mark. The third and fourth boys also took their turns and they too failed to hit the mark. Then Kila, the youngest son, took his canoe and set it down in the water and it sailed directly to his father and passed between his thighs. When his brothers saw that their youngest brother had won, they became very angry and from then on they tried to devise some way of killing him.

Sometime after this, Kila’s older brothers invited him to go and play at shooting arrows; but their parents knew that the boys had no love for their youngest brother, so their father did not allow Kila to join them. The older brothers pretended to be kind to Kila in every way possible, but their father still refused to allow him to go.

At last, when it was almost time for Kila to undertake his trip to Tahiti to bring La’amaikahiki to Hawai’i, Mo’ikeha gave Kila permission to join his older brothers: “My son, I’m not going to keep you away from your brothers any longer. The journey you are about to undertake may take you away from them forever, so you may accompany them from now until you leave. In the days following the kapu days of the temple, you shall sail for Tahiti.”

Kila replied: “You must not permit me to accompany my brothers for I might get killed. I think you ought to provide them with a god so that they will fear the god and in that way they will be prevented from killing me. Then I think it will be safe for me to accompany my brothers.”

Mo’ikeha saw the boy’s good judgment in the matter. He called his sons together and told them that they must now have a god. The boys would not consent to this. At this Mo’ikeha approved of Kila’s discretion and refused to allow the youngest to accompany his brothers on their excursions.⁶

Shortly after this Mo’ikeha proceeded to get everything ready for Kila’s voyage to Tahiti. Then Mo’ikeha advised him as follows: “When you sail from here, go by way of O’ahu and call on your aunts; they are living on the windward side of O’ahu, facing Moloka’i. When you call on them, they will recognize you.”

After these words of advice, Mo’ikeha picked out the men who were to accompany Kila on this voyage. Kamahualele, Mo’ikeha’s foster-son, was appointed as his travelling companion (hoa hele). Kapahi and Moanaikaiaiwa were selected as the paddlers (hoewa’a). Kipunuiiakamau and his companion were selected as navigators (ho’okele) and steersmen (kipu, lit. to hold back a canoe with a paddle). In case the canoe was in danger of running aground, Kamahualele would call out: “Kipunuiiakamau, hold on!” Then he and his

companion would hold back water and the canoe would come to a stop. (Thus, these two men were named Kipunui-aiakamau.) Kaukaukamunolea and his companion were selected as pilots (kiu, lit. “to scout or spy out”).

When Kila was about ready to set sail, two Kaua'i people said they wanted to go with him – Hooholoku and his companion. And upon the expressed wish of Kamahualele, Kila took Kuaiwilu and Kauineno, making ten in this company, with Kila and Kamahualele the total was twelve.

When the men were ready, Mo'ikeha ordered the kahuna kilokilo (who studied the signs in the heavens) to see if his son's journey would be safe. After reading the signs they announced that the journey would be safe. The kahuna Wanahili was selected as the thirteenth crew member.

At the dawn of the day the kahuna had designated for departure, just at the rising of the navigation star (hoku-ho'okele-wa'a, possibly Sirius), Kila set sail for O'ahu. Arriving off the shore of windward O'ahu where his aunts were living, he hove to in his canoe and called out: “My greetings to you, Makapu'u and Makaaoa.”

Makapu'u and Makaaoa replied, “Who are you?”

“I am Kila of the uplands, Kila of the lowlands, Kila-pa-Wahineikamalanai. I am the offspring of Mo'ikeha.”

“Is Mo'ikeha still alive then?”

“He is still alive.”

“What is he doing?”

“Dwelling in ease on Kaua'i, the sun rising and setting; the surf of Makaiwa breaking unevenly; the kukui blossoms of Puna changing; the waters of Wailua spreading out. He will live and die on Kaua'i.”

“What brings you here?”

“I am searching for a chief.”

“What chief?”

“La'amaikahiki.”

Then Kila left O'ahu and sailed for Kala'au Point where Mo'ikeha's friend Kakakauhanui was living. Kila again called out as he did to his aunts. Kila visited all the people left by Mo'ikeha, from O'ahu to Hawai'i, then proceeded to Tahiti.

The crew first landed at Moa'ulanuiakea-iki where Kupohihi was living, a human rat [a member of the rat clan], one of Mo'ikeha's uncles.

They called at Kupohihi's because they were out of food. Kila called out to his granduncle in the same manner as when he called on his aunts, and the crew was supplied with food.

Arriving in Tahiti, they saw Lanikeha, the royal house (hale ali'i) of Mo'ikeha. After staying there for a few days, they again set sail for Moa'ulanuiakea-nui and landed on the beach. Kila and Kamahualele set out to call on Lu'ukia. When Kila arrived at Lu'ukia's residence, he called out: "My greetings to you, Lu'ukia."

"Who are you?"

"I am Kila of the uplands, Kila of the lowlands, Kila-pa-Wahineikamalanai. I am the offspring of Mo'ikeha."

"Is Mo'ikeha still alive then?"

"He is still alive."

"What is he doing?"

"Dwelling in ease on Kaua'i, the sun rising and setting; the surf of Makaiwa breaking unevenly; the kukui blossoms of Puna changing; the waters of Wailua spreading out. He will live and die on Kaua'i."

"What brings you here?"

"I am searching for a chief."

"What chief?"

"La'amaikahiki."

"Your brother is hidden on the mountain of Kapa'ahu; we haven't seen him."

After this conversation with Lu'ukia, Kila retired to Lanikeha, Mo'ikeha's residence at Moa'ulanuiakea. Later Kamahualele and Kila looked for La'amaikahiki for many, many days, but couldn't find him. He had been hidden. Finally, Kila gave up and rested.

On the day before the kapu nights, Kila told Kamahualele. "You had better get our double-hulled canoe ready for our return voyage. I've decided to give up the search. Let's go back and tell Mo'ikeha we couldn't find La'amaikahiki. Perhaps Mo'ikeha will send someone else to continue the search."

Kamahualele proceeded to carry out Kila's orders, but he was not willing to give up the search. He thought it over and went to find Kuhelepolani, an aged kahuna of 'Olopana. He brought her to Kila and said to him: "Let's delay our voyage home for a while to see if this old woman can find the chief for us. She is a kahuna to 'Olopana. Perhaps she can direct us to your brother's secret residence."

Kila was gladdened by the prospects of finding his brother, but he was a stranger to such matters and asked Kamahualele: "What is a kahuna? What can she do?" Kamahualele described the character and rites of the priestess. Then Kila insisted that the kahuna help him perform the rites that would allow him to see La'amaikahiki.

Since Kila was so anxious to find his brother, Kuhelepolani explained to him what he should do. "After tomorrow, you will find La'amaikahiki on the mountain of Kapa'ahu. When we hear the beating of the drum Hawea, the drum which belongs to your father, Mo'ikeha, you must place a human sacrifice on the altar at Lanikeha, your father's heiau; then you will be able to see your brother. The drumbeat is a signal for sacrifice during the kapu nights. Tomorrow night is the night of the strictest kapu (kapu loa), and it has always been so from your father's time."

On the evening of the following day, the drum of La'amaikahiki was heard. Hearing the drum, Kamahualele was ordered to find a person for the sacrifice and to place the corpse on the altar according to the instructions of the aged priestess. During this night, when the drum was heard, Kuhelepolani came to Kila and asked him: "Did you hear the drum? The time has come when you will see your brother. Follow me wherever I go."

All that night and the next day Kila followed the aged kahuna. At evening, when they arrived near the place where La'amaikahiki was living, Kuhelepolani told him: "Let us remain here until we hear the drum again. Then you will enter into the mua (the house where people worship within the temple). When we get to the door of the mua, go in and conceal yourself in one of the corners; remain in your hiding place until your brother enters the house. Then be watchful; the one who approaches and strikes the drum is La'amaikahiki; after the priests line up and begin the prayer service (ka'i ka 'aha), call out to him."

Kila and Kuhelepolani remained where they were until they heard the beating of the drum. That evening, after the sun had set, they approached the door of the mua and Kila went in and hid himself. When he entered the mua, Kuhelepolani rose and walked away, as it was the law (kanawai) that women were forbidden to join the priests at the kapu houses. Not very long after Kila had entered the mua, La'amaikahiki came in and went and stood before the drum, where he remained awaiting the arrival of the priests. Shortly thereafter the priests entered. One of them offered a blessing (pule), after which they prepared to begin the prayer service.

At this moment Kila came forth and called out: "My greetings to you, La'amaikahiki."

La'amaikahiki replied: "Who are you?"

Appendix B: Mo'ikeha

"I am Kila of the uplands, Kila of the lowlands, Kila-pa-Wahineikamalanai. I am the offspring of Mo'ikeha."

"Is Mo'ikeha still alive then?"

"He is still alive."

"What is he doing?"

"Dwelling in ease on Kaua'i, the sun rising and setting; the surf of Makaiwa breaking unevenly; the kukui blossoms of Puna changing; the waters of Wailua spreading out. He will live and die on Kaua'i."

"What brings you here?"

"I've been sent by our father to come and take you to him as he is very anxious to see all his children together. I've been looking for you since my arrival here, but I was unable to find you; just as I was about to give up the search and return to Hawai'i, an old woman came to me and told me how to find you."

La'amaikahiki immediately prepared to accompany his brother to Hawai'i, as Mo'ikeha wished. La'amaikahiki took his priests and his god Lonoikaoualii, and set sail for Hawai'i with the men who had come with Kila. When they were approaching Kaua'i, La'amaikahiki began beating his drum. Mo'ikeha heard his drum and ordered everything, the land as well as the house, to be made ready for the reception of the chief La'amaikahiki. Upon the arrival of La'amaikahiki and Kila, the high priest of Kaua'i, Poloahilani took La'amaikahiki and his god Lonoika'ouali'i ("Lono at the Chiefly Supremacy") to the heiau. It is said that La'amaikahiki was the first person to bring a god (akua) to Hawai'i.

La'amaikahiki lived on Kaua'i for a time. Then he moved over to Kahiki-nui on Maui. This place was named for La'amaikahiki's homeland, in honor of him. As the place was too windy, however, La'amaikahiki left for the west coast of the island of Kaho'olawe, where he lived until he finally returned to Tahiti. Because La'amaikahiki lived on Kah'oolawe and set sail for home from that island, the ocean to the west of Kaho'olawe is called Kealaikahiki, "The Road to Tahiti."

After the death of Mo'ikeha, his corpse was taken to the cliffs of Ha'ena where it was deposited. Soon after this Kila assumed the chieftomship in place of Mo'ikeha, according to the wishes of his late father, his mother and aunt, and his mother's father.⁷

After La'amaikahiki arrived back in Tahiti, he heard through Hawena that Mo'ikeha had died; so he decided to return to Hawai'i for the bones of his father. He set sail for Hawai'i and first appeared off the Ka'u coast. By evening of the same day his canoe was moored on the beach at Kailiki'i.

In the evening the people of Ka'u heard the beating of a drum (pahu) accompanied by the notes of a bamboo flute ('ohe ka'eke). The people were startled and rushed out to see where these sounds were coming from. Outside, they saw that the sounds came from aboard a double-hulled canoe and remarked: "It's the canoe of the god Kupulupulu [a god of canoe builders]." When the people heard that it was the canoe of Kupulupulu, they prepared vegetable food and pig as offerings to the god. At dawn of the next day, the canoe and the people on it were seen, and the people ashore cried out: "You makers of the sounds, here are vegetable food and pig; they are offerings for the god."

La'amakahiki did not stay long at Kailiki'i. He set sail again, going up the Kona coast. On this passage from Ka'u to Kona, La'amakahiki continued to beat the drum and play the flute, and he treated as a god by the Kona people, just as he was by the people of Ka'u. It was on this visit that La'amaikahiki introduced hula dancing, accompanied by the drum, to Hawai'i.

After receiving vegetable food and pig from the Kona people, La'amaikahiki continued on his journey to Kaua'i where he met his brother Kila and arranged to take the bones of Mo'ikeha to Tahiti. Soon after, the bones of Mo'ikeha were brought from Ha'ena. La'amaikahiki stayed a long time on Kaua'i teaching the people the art of dancing. From Kaua'i La'amaikahiki visited all the other islands of this group and thus the drum dance (hula ka'eke) spread to the other islands.

After La'amaikahiki returned to Kaua'i from his tour of the other islands, he took his brother Kila and the bones of their father to Tahiti with him. The bones were to be deposited in the mountain of Kapa'ahu, Mo'ikeha's own inheritance. La'amaikahiki and Kila also lived there until their death. Nothing more was heard about these two brothers.⁸

NOTES

This version of the Mo'ikeha story is from Fornander, Vol. IV, pp. 112-128; the story of La'amaikahiki is found on pp. 152-154 of the same volume. Other versions of the Mo'ikeha-Kila-La'amaikahiki story are found in Kamakau's *Tales and Traditions* (105-110) and Kalakaua's *Legends and Myths of Hawaii* ("The Triple Marriage of Laa-mai-kahiki," 117-135).

1. For a discussion of the location of Mo'ikeha's homeland in Tahiti, see Rubellite Kawena Johnson's "From the Gills of the Fish: The Tahitian Homeland of Hawaii's Chief Mo'ikeha." Johnson points out that Fornander favored the island of Ra'iatea as the homeland, while Teuira Henry favored the island of Tahiti-nui. Based on an analysis of Tahitian and Hawaiian place names, Johnson argues for Tahiti-nui as Mo'ikeha's homeland, though "not greater Tahiti-nui as [Henry] suggests...but its peninsula to the south" (51).

2. According to one tradition, 'Olopana and Lu'ukia left Waipi'o after a flood (Beckwith 353); See note 3 below: Kalakaua says 'Olopana migrated to Tahiti after a hurricane and flood devastated Waipi'o. A flood as a cause of a migration is found also in the Easter Island

tradition of Hotu Matua; though the flood in that tradition seems to refer to the rising of the sea level (Barthel 10).

3. According to another tradition recorded by Kamakau, both Mo'ikeha and 'Olopana belonged to Tahiti. Mo'ikeha left Kahiki and came to Hawai'i because he had "opened the food-offering calabash of his older brother 'Olopana and had been caught undoing the chastity belt of 'Olopana's wife Lu'ukia, the 'aha, or sennit cord, binding called Lu'u-a-na-ko'a-i-ka-moana. He was severely criticized and so he went off to sea" (Kamakau 105).

In the Kalakaua version, both 'Olopana and Mo'ikeha belonged to Hawai'i. They were grandsons of Maweke, a native chief of the Nanaulu line and ali'i nui of O'ahu. Maweke had three sons – the eldest, Mulieleali'i, became ali'i nui of the western side of O'ahu; Kalehenui was given land in Ko'olau; Keaunui resided in 'Ewa. Mulieleali'i had three sons – Kumuhonua, who became ali'i nui of O'ahu, and 'Olopana and Mo'ikeha, who were given small holdings. The two younger brothers were dissatisfied with their lots on O'ahu and settled in Waipi'o on the Big Island. 'Olopana married Lu'ukia, a granddaughter of Hikapaloo, ali'i of Kohala. Mo'ikeha did not marry while living in Waipi'o; he adopted a son, La'a, a son of Ahukai and a descendent of Paumakua, the famous voyaging chief of east O'ahu, who "visited all foreign lands then known to the Hawaiians" (119).

In the Kalakaua version, 'Olopana and Mo'ikeha left Hawai'i in five canoes after a hurricane and floods devastated Waipi'o. He and his brother sailed south and landed on Ra'iatea, where they took possession of the land. 'Olopana became the ruler and Mo'ikeha his chief adviser. Mo'ikeha's house and heiau were called Lanikeha ("heavenly resting place" – possibly a variant of Laniakea, the Hawaiian form of the name Ra'iatea?). Mo'ikeha left Ra'iatea to return to Hawai'i after his brother became jealous of his growing prosperity and popularity. A native ali'i named Mua, with ambitions of replacing Mo'ikeha as chief adviser, fueled 'Olopana's jealousy.

4. Some of the names of Mo'ikeha's crew have survived as place names on the islands where they settled: Kumukahi is the easternmost point of Hawai'i; Ha'eha'e is a land division near Kumukahi. Honua'ula is a district of south-central Maui; Makapu'u is the easternmost point of O'ahu.

Kamakau gives the following list of people let off the canoe as it sailed through the Hawaiian Islands from east to west: Moa'ula, who remained at Punalu'u, Hawai'i; Paha'a and Pana'ewa, who remained at Lahaina, Maui; La'amaomao, who remained at Haleolono, Kaluako'i, Moloka'i; Poka'i and Mo'eke, who remained at Wai'anae, O'ahu.

Kalakaua says that Mo'ikeha sailed from the harbor of Opoa on Ra'iatea. The double-hulled canoe was nearly a hundred feet long and the crew was over forty. It included the prophet, poet, and astrologer Kamahualele; the priest Mo'okini; and La'amaomao, the director of the winds.

After an apparently uneventful 2500 miles voyage, Mo'ikeha arrived at Ka'u, where a joyous crowd greeted the canoe and water and provisions were replenished. The canoe then

proceeded to Cape Kumukahi and Kohala on Hawai'i, where it was welcomed by the ali'i nui Kaniuhi; then to Honua'ula on Maui. Mo'ikeha was warned by his priest and seer against going to 'Ewa to visit his father Mulieleali'i, so he sailed north around O'ahu, stopping only at Makapu'u and Makaaoa. He landed on Kaua'i, near Kapa'a.

5. Kamakau's Version of Mo'ikeha's Marriage: Mo'ikeha married one woman whose name was both Ho'oipoikamalanai and Hina-'au-lua. Mo'ikeha's three children were Ho'omali'i, named for the skin of 'Olopana; Haulani-nui-ai-akea for the eyes of 'Olopana; and Kila, for Lu'ukia, the wife of 'Olopana.

Kalakaua's Version of Mo'ikeha's Marriage: Mo'ikeha married Ho'oipo after winning the right to do so in a canoe race devised by Puna, the ali'i of Wailua and the father of Ho'oipo. Puna sent a servant with a palaoa (a carved and consecrated whale-tooth) to the island of Ka'ula (SW of Kaua'i). Nine suitors raced to the island to be the first to bring the whale-tooth back. Mo'ikeha won the race by sailing to Ka'ula with the help of La'amaomao, his director of winds, who had a calabash that contained all the winds of Hawai'i, which he could call forth by chanting their names. In this version, Mo'ikeha had seven sons with Ho'oipo; the third was called Kila.

6. Neither Kamakau nor Kalakaua mention the rivalry of the brothers or the test of the ti-leaf canoes, which is the central incident in the Fornander version. A test involving toy canoes is a motif in Polynesian voyaging traditions. The story of Tafa'i includes a version of this test: the young voyaging hero Tafa'i made a twig canoe that beat the twig canoes of the other boys to shore.

7. The Fornander version of Mo'ikeha continues on with the story of Kila (Vol. IV, 128-152) before telling the story of La'amaikahiki's second visit to Hawai'i.

Kamakau's Version of Kila's Voyage to Tahiti: Mo'ikeha sent all three sons to Tahiti to bring La'a to Hawai'i. Mo'ikeha had designated La'a, the first born, as heir to his lands and titles. The youngest son Kila was placed in command of the canoe, the same one Mo'ikeha himself sailed from Kahiki to Kaua'i. "He first taught Kila the way to sail over the ocean and to study the stars...." After departure, the canoe was becalmed off Malae Point in Wai'anae and Kila and his two brothers met Poka'i and Mo'eke, two of Mo'ikeha crew members from the voyage to Hawai'i. When asked about his father, Kila replied: "He is enjoying surfing at the stream mouth, body surfing from morning to night on the waves of Ka'ohala in the sheltered calm of Waimahanalua – the openness of Kewa and its swayng kalukalu – the two hills that bear Puna like a child in arms – the diving place at Waiehu where the taro grows as big as 'ape – the curling of the waves at Makaiwa – his beautiful wife, my mother Ho'oipo-i-ka-malanai. Mo'ikeha will die on Kaua'i; he will not return to Kahiki lest his feet be wet by the sea."

The canoe proceeded on to Moloka'i, Maui, and Hawai'i, then left from Kalae in Ka'u for Kahiki. In Kahiki, they found 'Olopana was the high chief and Lu'ukia the chiefess, La'a the heir to the kingdom 'Olopana persuaded Kila not to take La'a to Hawai'i. So Kila and his brothers returned to Hawai'i without La'a. After returning, Kila settled on Hawai'i, and became "a chiefly ancestor for the chiefs and commoners of Hawai'i and Maui." The oldest

brother, Ho'okamali'i, settled in 'Ewa on O'ahu. Haulani-nui-ai-akea, the second oldest, settled on Kaua'i and became an ancestor of chiefs and commoners of Kaua'i. After 'Olopana's death, La'a sailed to Hawai'i on his own. (See note 6 for Kamakau's account of this voyage.)

Kalakaua's Version of Kila's Voyage to Tahiti: La'a was Mo'ikeha's adopted son; he was born in Hawai'i (not Tahiti as in Fornanader's and Kamakau's versions), a descendant of the famous O'ahu voyaging chief Paumakua. La'a accompanied his foster-father Mo'ikeha and foster-uncle 'Olopana to Ra'iatea in the Society Islands after their home in Waipi'o Valley was devastated by a flood. La'a remained in Tahiti, not returning with Mo'ikeha to Hawai'i, because La'a had become the heir to 'Olopana, the ruler of Ra'iatea.

In his old age, Mo'ikeha longed to see La'a and ordered his men to repair his canoes. He also had a special gift made – a cloak of mamu feathers: “As but a single small yellow feather of the kind used in a royal mantle is found under each wing of the mamu, the task of securing the many thousands required was by no means a brief or easy service;... As the choicest feathers alone were used, the garment was one of the most brilliant and elaborate ever made on Kaua'i and represented the labor of a hundred persons for a year put Kila in charge of bringing La'a to Hawai'i.”

Mo'ikeha put his third son Kila in charge of the voyage because of Kila's courage and skill as a navigator. Kila was delighted with the prospect of the voyage. He provisioned a fleet of double-hulled canoe in a few days with “dried fish, dried banana and plantains, coconuts, yams and potatoes and poi and paiai, fresh fruits and cooked fowls and pigs for early consumption. Large calabashes of fresh water were also provided, but frequent baths largely diminished the craving for that necessity... Sacrifices were offered, the auguries were pronounced favorable, and the fleet of double canoes set sail for the south.” Kamahualele, the friend and astrologer of Mo'ikeha, went as navigator and counsellor to Kila. Three of Kila's brothers went along. After a smooth voyage, Kila found La'a in Tahiti and presented him with Moikeha's gift, the feather cloak. 'Olopana objected to La'a going to Hawai'i until La'a promised to stay in Hawai'i only a short while, then return to Tahiti. La'a went to Hawai'i, visited Mo'ikeha on Kaua'i, and married three women, returning to Ra'iatea after Mo'ikeha's death. (See note 6 for Kalakaua's account of this voyage.)

8. Kamakau's Version of La'amaikahiki's Visit to Hawai'i: After 'Olopana's death, La'a sailed to Hawai'i, with Ka'ika'i-kupolo, the kahuna (priest); Ku-ke-ao-mihamiha, the kilo (seer); Luhaukapawa, the kuhikuhipu'uone (diviner); Kupa, the ho'oheihei pahu (drummer); Ma'ula-miahea, the kaula (prophet), and forty paddlers. The canoe sighted Maui and Moloka'i first and continued on to O'ahu. There a man named Ha'ikamalama at Hanauma heard Kupa's drumming and rushed to Makapu'u to see where it was coming from. When he saw the canoe heading for Kane'ohe Bay, he rushed there. By the time La'a landed at a place which came to be called Na-one-a-La'a (“The sands of La'a”) in Kane'ohe, Ha'ikamalama had learned Kupa's mele. He performed it by tapping his chest with his fingertips. He pretended he already knew about the drum so he could examine it and later make one himself.

La'a settled at Kualoa and married three ali'i – Hoaka-nui-kapua'i-helu, Waolena, and Mano. All three became pregnant on the same day and gave birth on the same day. La'a “became an

ancestor for chiefs and commoners of O'ahu and also for Hawai'i and Kaua'i. His chiefly descendants are found in the mo'o ku'auhau of Nana'ulu, Puna-i-mua, and Hanala'a-nui."

Kalakaua's Version of La'amaikahiki's Visit to Hawai'i: Once in Hawai'i, La'a visited several places, including Waialua, O'ahu, where his family was from. He visited Mo'ikeha on Kaua'i, then moved to Kualoa on O'ahu and consented to marry three wives, so that the blood line of Paumakua could be carried on in its native land. The wives are the same three mentioned by Kamakau – Hoakanui, daughter of Lonokaeha of Kualoa; Waolena, daughter of a chief of Ka'alaea; and Mano, daughter of a chief of Kane'ohe "The names of the children were Ahukini-a-La'a, Kukona-a-La'a, and Lau-li-a-La'a, from whom in after-generations, the pride and glory of the governing families of O'ahu and Kaua'i trace their lineage. From Ahukini-a-La'a Queen Kapi'olani, wife of Kalakaua, is recorded in descent through a line of chiefs and kings of Kaua'i." After Mo'ikeha's death, La'a returned to Ra'iatea and voyaging between Hawai'i and the southern homeland ceased.

Kamakau's version of the Mo'ikeha tradition continues on with the story of Mo'ikeha's grandson Kaha'i-a-Ho'okamali'i, who sailed to Kahiki to go sightseeing, departing from Kalaeloa, O'ahu. He brought back ulu (breadfruit) from 'Upolu and planted it at Pu'uloa in 'Ewa, O'ahu.

Appendix C: Glossary of Hawaiian Terms

The following list of terms were used frequently throughout this assessment. All definitions were compiled using Pukui and Elbert's *Hawaiian Dictionary* (1986).

'Aha	A prayer or service whose efficacy depended on recitation under taboo and without interruption. The priest was said to carry a cord ('aha).
Ahupua'a	Land division usually extending from the uplands to the sea, so called because the boundary was marked by a heap (ahu) of stones surmounted by an image of a pig (pua'a), or because a pig or other tribute was laid on the altar as tax to the chief.
'Āina	Land, earth.
Akua	1. God, goddess, spirit, ghost. 2. Divine, supernatural, godly.
Ali'i	1. Chief, chiefess, ruler, monarch. 2. Royal, regal. 3. To act as chief, reign.
Ali'i nui	High chief.
'Aumakua	Family or personal gods, deified ancestors who might assume the shape of sharks, owls, hawks, dogs, plants, etc. A symbiotic relationship existed; mortals did not harm or eat them, and the 'aumakua warned or reprimanded mortals in dreams, visions, and calls.
'Aumākua	Plural of 'aumakua.
'Auwai	Irrigation ditch, canal.
'Ea	A general term for infections and infectious diseases; coated tongue, sometimes accompanied by sore throat, the thrush disease of children. Many diseases of miscellaneous nature begin with 'ea.
Haku 'Ōhi'a	'Ōhi'a log to be carved into a canoe; main 'ōhi'a image in a heiau.
Hālau	1. Long house, as for canoes or hula instruction; meeting house. 2. Large, numerous; much.

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Heiau	Pre-Christian place of worship, shrine. Some heiau were elaborately constructed stone platforms, other simple earth terraces.
Hoā ʻāina	Tenant, caretaker, as on a kuleana.
Hula	A Polynesian dance form accompanied by chant or song.
ʻIke	To see, know, feel, greet, recognize, perceive, experience, be aware, understand.
Imu	Underground oven; food cooked in an imu.
Kāhili	Feather standard, symbolic of royalty.
Kahuna	1. Priest, sorcerer, magician, wizard, minister, expert in any profession. 2. Royal advisor.
Kālaʻau	Stick dancing; to stick dance; sometimes this term is applied to fencing instead of the more frequent kākā lāʻau.
Kamaʻāina	1. Native-born, one born in a place, host. 2. Native plant. 3. Acquainted, familiar.
Kanikau	1. Dirge, lamentation, chant of mourning, lament. 2. To chant, wail, mourn.
Kapu	1. Taboo, prohibition. 2. Special privilege or exemption from ordinary taboo. 3. Sacredness, prohibited, forbidden, sacred, holy, consecrated. 4. No trespassing, keep out.
Kino lau	Many forms taken by a supernatural body, as Pele, who could at will become a flame of fire, a young girl, or an old hag.
Koʻa	1. Fishing ground, usually identified by lining up with marks on shore. 2. Shrine, often consisting of circular piles of coral or stone, built along the shore or by ponds or streams, used in ceremonies as to make fish multiply; also built on bird islands, and used in ceremonies to make birds multiply. 3. Coral, coral head.
Kuahu	Altar.
Konohiki	Head man of an ahupuaʻa land division under the chief; land or fishing rights under control of the konohiki; such rights are sometimes called konohiki rights.

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Kumu	Source of a stream, spring.
Kupuna	Grandparent, ancestor, relative or close friend of the grandparent's generation, grandaunt, granduncle.
Kūpuna	Plural of kupuna.
Lā'au	1. Tree, plant, wood, timber, forest, stick, pole, rod, splinter, thicket, club. 2. Medicine, medical.
Lei	Garland, wreath; necklace of flowers, leaves, shells, ivory, feathers, or paper, given as a symbol of affection.
Lo'i	Irrigated terrace, especially for taro, but also for rice and paddy.
Lo'i kalo	Ponds for wetland taro that are enclosed by banks of earth.
Loko i'a	Traditional Hawaiian fishpond.
Luakini heiau	Temple, church, cathedral, tabernacle. Large heiau where ruling chiefs prayed and human sacrifices were offered.
Mana'o	1. Thought, idea, belief, opinion, theory, thesis, intention, meaning, suggestion, mind, desire, want. 2. To think, estimate, anticipate, expect, suppose, mediate, deem, consider.
Mele	1. Song, anthem, or chant of any kind. 2. Poem, poetry. 3. To sing, chant.
Mele māka'ika'i	Travel chant.
Menehune	Legendary race of small people who worked at night, building fish ponds, road, temples. If the work was not finished in one night, it remained unfinished.
Mō'i	King, sovereign, monarch, majesty, ruler, queen.
Moku	1. District, island, islet, section, forest, grove, clump, fragment. 2. To be cut, severed, amputated, broken in two.
Mokupuni	Island.
Mo'o	Lizard, reptile of any kind, dragon, serpent.
Mo'olelo	Story, tale, myth, history, tradition, literature, legend, journal, log, yard, fable, essay, chronicle, record, article.
'Ohana	Family, relative, kin group, related.

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'Ōlelo no'eau	Proverb, wise saying, traditional saying.
Oli	Chant that was not danced to, especially with prolonged phrases chanted in one breath, often with a trill at the end of each phrase; to chant thus.
Pāhoa	Short dagger; sharp stone, especially as used for a weapon.
Pali	Cliff, precipice, steep hill or slope.
Pule	1. Prayer, magic spell, incantation, blessing, grace, church service, church. 2. To pray, worship, say grace, ask a blessing, cast a spell.
Ua	Rain, to rain, rainy.
'Ūniki	Graduation exercises, as for hula, lua fighting, and other ancient arts (probably related to niki, to tie, as the knowledge was bound to the student).
Wa'a	Canoe, canoemen, paddlers.
Wahi pana	A sacred and celebrated/legendary place.
Wao	1. Realm. 2. A general term for inland region usually forested but not precipitous and often uninhabited.