HISTORICAL DOCUMENTARY RESEARCH and ORAL HISTORY INTERVIEWS:

WAIĀKEA CANE LOTS (12, 13, 17, 18, 19, 20 & 20-A)

Land of Waiākea, District of South Hilo, Island of Hawai'i



Stone Terrace, Waiākea Cane Lots (Proposed Pū'āinakō Road Alignment)
State Site 50-10-35-18911, Feature A (Reference Hunt and McDermott 1993:37,42-47)

KUMU PONO ASSOCIATES

Cultural Resources Management Planning, Historical and Archival Documentary Research ,Oral History Studies, Community Outreach, and Interpretive Program Development Hilo, Hawai'i 96720 · (808) 981-0196 · kumupono@hawaii.rr.com

HISTORICAL DOCUMENTARY RESEARCH and ORAL HISTORY INTERVIEWS:

WAIĀKEA CANE LOTS (12, 13, 17, 18, 19, 20 & 20-A)

Ahupua'a of Waiākea, **District of South Hilo,** Island of Hawai'i (TMK:2-4-01,7,10)

BY

Kepā Maly • Cultural Resources Specialist

PREPARED FOR

UHH Hoʻoikaika Club Paulo Burns, Coordinator c/o History Department University of Hawai'i—Hilo Hilo. Hawai'i 96720

JUNE 1996

©1996 Kumu Pono Associates

KUMU PONO ASSOCIATES

Cultural Resources Management Planning, Historical and Archival Documentary Research, Oral History Studies, Community Outreach, and Interpretive Program Development

EXECUTIVE SUMMARY

At the request of Ms. Pat Layton and Mr. Paulo Burns of the Hoʻoikaika Club of the University of Hawaiʻi-Hilo, Cultural Resources Specialist, Kepā Maly (Kumu Pono Associates) conducted a detailed review of archival and historic literature and limited oral history study, for the land of Waiākea, Hilo Hawaiʻi. Of particular interest to the following study, was the investigation of traditions and Hawaiian-and historic-period use of the area included within the former Waiākea Cane Lots Parcels 12, 13, 17, 18, 19, 20, & 20-a (TMK:2-4-01,7,10), now the location of the proposed Pūʻāinakō Road Extension. The study was funded through a grant from the Trustees of the Office of Hawaiian Affairs, for which the Trustees are to be commended—collection of oral histories from kūpuna (elders) is very important if we are to retain rich and personal aspects of our island history for future generations.

During the process of conducting the study (July 1995-March 1996), archival resources from the Hawai'i State Archives, Bureau of Conveyances and State Survey Branch, the Archives of the Bernice Pauahi Bishop Museum, Real Property Tax Office (Honolulu), Moʻokini Library of the University of Hawai'i-Hilo Campus, Hawai'i Sugar Planters Association, and State Library Collection were referenced. The limited oral history component of the study was carried out between October 1995-March 1996, which resulted in the collection of four oral history interviews; two recorded and two for which detailed notes were kept. Follow-up discussions with interviewees, were participated in through June 15, 1996.

Beginning approximately three and one-half years ago, members of the UH-H Hoʻoikaika Club, became concerned about the nature of archaeological features discovered while preparing to clear the way for the proposed Pūʻāinakō Road Extension. The primary goal of this study was to conduct a detailed research and report on land use and the nature of cultural resources within the study area. As a result of conducting this study, specific documentation pertaining to traditional land use in the areas of Kāwili and Pūʻāinakō was located. Also, as had been discussed by several earlier writers, detailed information was collected that confirmed that the environmental zone in which the study area is situated was one of importance to the traditional Hawaiian system of subsistence agriculture. Additionally, testimonies (a form of oral histories) collected by the Boundary Commission in c. 1873, described the existence of trail systems, heiau, and planting localities in the general zone. The research also brought to light, detailed documentation of plantation, dairy and ranch use of the study area lands, showing that land use evolved and continued within the project area through at least the 1960s.

While it is likely that most of the archaeological sites within the study area are representative of later periods of land use (i.e. 1870s-1950s), it is also likely that components of traditional sites were incorporated into the more recent features. Further more, the sites which are situated within and neighboring the study area are of historic value—in excess of 50 years old—and are representative of a period of history which in itself has nearly been erased from the modern landscape. The sites are a unique resource and provide the community with an opportunity to both touch and learn about Hilo's varied past. The challenge here-in is to balance the protection of our past with the desires of the future, and needs of both.

Report Distribution

Through the auspices of Trustees of the Office of Hawaiian Affairs, copies of this study were distributed to: The Trustees of the Office of Hawaiian Affairs (OHA); Ms. Linda Delaney and Ms. Jamie Wong (OHA staff); the Honorable Chair and Members of the County Council of Hawai'i; Department of Land and Natural Resources-State Historic Preservation Division; Director of the Division of Public Works; Director of the Hawai'i State Department of Transportation; Chancellor of the University of Hawai'i-Hilo; the UHH Mo'okini Library; representative of other selected review agencies; and community members who graciously participated in the study.

ACKNOWLEDGMENTS

There is a Hawaiian saying, "A'ohe hana nui ke alu 'ia" — No task is too big when it is done together by all (Pukui 1983:18, No. 142). In the case of this study, it's completion is the result of the efforts of many people — Mahalo nui nō!

The author wishes to thank the following individuals and institutions: (a) Mrs. Josephine Nāwai'ōpua Kama'u-Kunewa, Mrs. Mary Kawahineha'aheo Kama'u-Fragas, Mr. Eugene "Gini" Olivera, Mr. Kenneth Bell, and Mr. John Forbes for their willingness to "talk story," and share some of their recollections about Waiākea; (b) Aunty Pat Layton, Paulo Burns, Michael Larish, Nohea Leong, and members of Hoʻoikaika— concerned, involved, and proactive individuals and communities can help care for the past and help us plan for a better future in Hawai'i; (c) Vicky, Lynn, and Gloria of the Hawai'i State Archives; Betty Kam, Stuart Ching, Desoto Brown, and staff of the Bishop Museum Archives; Junko Nowaki of the University of Hawai'i-Hilo Campus, Moʻokini Library; Ann Marsteller of the HSPA Archives; Marvin Ting of the State Survey Branch; and Ron Tsuji and Glenda of the Real Property Tax Office. These people help to make the archival resources of their various facilities readily accessible; and (d) the Trustees of the Office of Hawaiian Affairs for their willingness to help Hoʻoikaika ensure that the cultural landscape of the study area be adequately understood and properly cared for.

-Kepā Maly

O ka mea maika'i mālama, o ka mea maika'i 'ole kāpae 'ia (Keep that which is good, set that which is not good aside)

Contents

Historical Documentary Research and Oral History Interviews: Waiākea Cane Lots (12, 13, 17, 18, 19, 20 & 20-a), Ahupua'a of Waiākea, District of South Hilo, Island of Hawaii (TMK:2-4-01,7,10)	1	
Background	1	
Overview: Hawaiian Settlement and Population Expansion— Mai Kahiki Mai (Coming from Kahiki)		
An Overview of Hawaiian Land Use Practices and Traditions of the Land	4	
The Land of Kāwili, Waiākea, District of Hilo	6	
"Ahele Manu" (Snaring and Trapping Birds)	6	
Kekahi Mo'olelo no ka 'Āina o Waiākea-Hilo (Historical References to the Lands of Waiākea-Hilo)	8	
Kekahi Mo'olelo 'Āina e a'e (Another Story of the Land)	10	
Ka'ao Ho'oniua Pu'uwai no Ka-Miki	10	
Selected Place Names and Narratives from the Legend: Ka'ao Ho'oniua Pu'uwai no Ka-Miki	11	
A Chronology of Selected Early Historic References to Waiākea-Hilo	14	
Waiākea (1824-1850): A Hawaiian Community Changes	16	
The Māhele-Land Division of 1848	19	
Boundary Commission Testimonies-1873	23	
Sugar Cane: Development of Plantations in Hilo		
Overview: Waiākea Mill Company 1879-1948 and Hilo Railroad Company–Hawaii Consolidated Railway, Ltd., 1899-1946	26	
Land Tenure: The Waiākea Mill and Homesteads	27	
Tsunami of April 1 , 1946	29	
Overview: Hilo Railroad Company and Hawaii Consolidated Railway, Ltd. 1899-1946	30	
Pineapple and Canec-Hawaiian Cane Products	30	
Waiakea Mill Company: Recorded Uses of Cane Lots 13, 17, 18, 19,20, & 20-a		
Fairview Dairy and William Kama'u Grazing Leases	36	

	Archaeo	logical Studies of the Early 20th Century	38		
		ion Collected as a Result ral History Interviews (1995-1996)	40		
	Back	ground Research and Informant Selection	40		
	Inforr	mant Interviews	40		
	Data Repository and Access				
	Informant Interviews (October 1995-March 1996)				
	Interv	view 1. Eugene "Kini" Olivera - October 9, 1995	41		
	Interv	view 2. Mary Kawahineha'aheo Kama'u-Fragas October 13, 1995 (with photograph)	42		
	Interv	view 3. Josephine Nāwai'ōpua Kama'u-Kunewa November 9, 1995 (with photograph)	47		
	Interv	view 4. Kenneth Bell December 4, 1995 (with photograph)	55		
Conclus	ions and l	Recommendations	61		
Reference	ces Cited		64		
Figures					
i iguico	Figure 1.	Study Area-Portion of the Proposed Pūʻāinakō Road Extension (Waiākea, Hilo, Hawaiʻi)	2		
	Figure 2.	Portion of Register Map 1561 (State Survey Branch)	21		
	Figure 3.	Waiakea Pasture Land (Land Court Application 1205); Showing Study Area and Neighboring Waiakea Cane Lots and LCA 2663 and 2402	35		
	Figure 4.	Portion of Railway and Flume Right of Ways Through Waiakea Homestead Lots and Government Land	37		
	Figure 5.	Sketch Map of Plantation Store, Old Manager's House and Vicinity	55		
Appendi		A O series O diserted Weither Occupied			
	Appendix	 Question Outline for Waiākea Cane Lots Oral History Interviews 	1		
	Appendix	2. Personal Release of Interview Records	1		

LIMITED INDEX TO SELECTED TOPICS OR REFERENCES

A	R
Archaeological Sites: 1, 38, 62, 63 Heiau: 9, 24, 38, 39, 59, 61, 62	Railroad & Railway System: 26, 29, 30, 32, 34, 36, 40, 41, 42, 50, 55, 56, 57, 58, 59, 60, 61, 62
В	
Bell, Kenneth: 29, 30, 38, 47, 50, 51, 54, 55, 56 59, 60, 62	S Stone Mounds & Walls: 25, 38, 41, 42, 57, 58, 59, 60, 62
C	0 0 15 10 5 1 0 4 5 40 40
Canec: 26, 30, 31 Flintkote: 31	Sugarcane – Cultivated & Fields: 3, 4, 5, 16, 18, 25, 26, 27, 28, 30, 32, 33, 34, 38, 41, 43, 50, 54, 55, 56, 57, 58, 59, 60, 61, 62
Fragos Mary Komo'u 26 42 54 54 62	Sugar Plantation Fields and Operations: 25, 26
Fragas, Mary Kamaʻu: 36, 42, 51, 54, 62 Forbes, John: 29	Sugar Plantation–Fields and Operations: 25, 26, 27,28, 29, 30, 32, 38, 43, 51, 57, 58, 59, 62
	Т
Н	Trails: 9, 10, 11, 17, 23, 24, 34, 39, 62
Hawaiian Agricultural Resources and Practices Fields: 3, 14, 14, 20, 22, 38	
Forest plantations: 3, 5 Gardens: 4, 5, 18, 25, 61, 62	W Waiākea Cane Lots: 1, 25, 27, 28, 30, 32, 33,
Homestead (Waiākea): 6, 26, 27, 28, 29, 32, 33,	34, 36, 41, 42, 47, 56, 57, 58, 60, 62
34, 36, 42, 47, 49	
K	Waiākea in Legendary & Historical
Kāwili (Kawili),	References: 3, 4, 5, 6, 8, 9, 10, 11, 13, 14, 15, 16, 17, 20, 22, 23, 24, 25,
Land of: 5, 6, 7, 8, 9, 11,	26 (see also Waiākea Mill)
Street: 6, 36, 44, 46, 51, 52, 53 Kealoha, Mina: 60	Waiākea Mill: 20, 26, 27, 28, 29, 30, 31, 32, 33, 34, 36, 38, 40, 50, 51, 55, 56, 57,
Kunewa, Josephine Kamaʻu: 36, 41, 47, 57	58, 59, 60, 62
N Nowaki, Junko Higa: 36, 60	
Saburo Higa: 60	
& Hajime Miyamoto: 60	
O 'Ōla'a Sugar Campany: 20, 60	
'Ōla'a Sugar Company: 30, 60 Olivera, Eugene (Gene): 36, 41, 47, 52, 63	
Р	
Pana'ewa: 3, 4, 5, 7, 8, 9, 11	
Pineapple: 30, 57 Pū'āinakō (Puainako)–	
House lots: 36, 42	
Land of: 5, 20, 22, 23	
Street/Road: 1, 25, 36, 41, 43, 47, 50, 54, 55, 57, 59, 60, 62	
Puna Sugar Company: 30	

Historical Documentary Research and Oral History Interviews: Waiākea Cane Lots (12, 13, 17, 18, 19, 20 & 20-a), Ahupua'a of Waiākea, District of South Hilo Island of Hawai'i (TMK:2-4-01,7,10)

Background

The following study was conducted by Kepā Maly (Kumu Pono Associates) of Hilo at the request of Ms. Pat Layton, Mr. Paulo Burns and members of the UH-H Hoʻoikaika Club, a University of Hawaiʻi– Hilo Campus student organization concerned about the preservation of archaeological sites identified by Hunt and McDermott (1993), within a portion of the Pūʻāinakō Road Extension Corridor (Figure 1.). Major funding for the study was provided to the UHH Hoʻoikaika Club in the form of a grant from the Trustees of the Office of Hawaiian Affairs^{*}. This ethnographic study helps to provide readers with a clearer understanding of the history of land use in the study area and greater Waiākea-Hilo region. The specific area of concern for this study are the Waiākea Cane Lots 12, 13, 17, 18, and 19 (now covered within TMK:2-4-01,7), and Waiākea Cane Lots 20 & 20-A, covered within TMK:2-4-01,10.

This component of the work, done at the request of members of the UHH Hoʻoikaika Club, provides readers with detailed—though not exhaustive—information on Waiākea, Hilo, specifically addressing: (a) settlement patterns and evolution of the localized Hawaiian community; (b) cultural practices and the use of land and ocean resources; (c) the implications of Western contact and associated changes in the environment and land use practices; (d) the rise and fall of sugar cultivation in the Waiākea Cane Lots; and (e) presents information collected through oral history interviews with individuals who have life-long tenancy in the Waiākea area.

The study includes references from the extensive historical researches previously completed for the region around Hilo Town (e.g., Handy and Handy with Pukui 1972, McEldowney 1979, and Kelly, Nakamura, and Barrere 1981); if further detailed information from those studies is desired, the original sources should be reviewed. This study also includes recently available translations of Hawaiian narratives from legendary and ethnographic resources. The excerpts of recently translated Hawaiian legends and ethnographic materials, and the oral history interviews that are included in this study, offer readers a view of the Waiākea-Hilo area through the eyes of its' native tenants and long-time residents. This documentation may help readers better understand the nature of both the ancient and historic communities of the Waiākea-Hilo area.

^{*} It is noted here that the UHH Ho'oikaika Club also contracted Garcia Associates, to conduct additional archaeological field survey work in the study area. The purpose being to ensure that all cultural sites and features had been accurately identified and recorded in the previous archaeological field work (i.e., Hunt and McDermott 1993). At the time of this writing, preparations for the additional field work are underway (The Office of Hawaiian Affairs has authorized an extension of the grant for archaeological services through December 1996).



Figure 1. Study Area—Waiākea, Hilo, Hawaiʻi

Overview: Hawaiian Settlement and Population Expansion— —Mai Kahiki Mai (Coming from Kahiki)

Current theory places Polynesian settlement voyages between Hawaii and Kahiki (the ancestral homelands of the Hawaiian gods and people) in two major periods, AD 300 to 600 and AD 1100 to 1250. The ancestors of the indigenous Hawaiian population are believed to have come primarily from the Marquesas and Society Islands (Emory in Tatar 1982:16-18). E.S.C. Handy, ethnographer and writer on traditional Hawaiian life, speculates that when the first settlers reached the Hawaiian Islands, they found flora much like that of their homelands even though the topography was notably different (Handy and Handy 1972:12). For generations following initial settlement, it is believed that the growing Hawaiian population remained along the windward (koʻolau) shores of the Hawaiian Islands, where there was easy access to water sources and fishing was good (ibid.). It was in this windward environment that agricultural production could become established. Lands surrounding the Hilo Bay are watered by Wailuku river, and smaller streams as Waiolama, 'Alenaio, and Wailoa. Within this setting. Waiākea was noted for its natural and modified fish- and taro-ponds. Also on the shore of Waiākea, Maka-o-Kū, not far from Moku-ola (Coconut Island), was a great fishing koʻa (dedicated aku fishing ground). It is now posited that only after the best areas became populated and perhaps crowded (c. A.D. 800 to 1000), did the Hawaiians begin settling more remote kona (leeward) sides of the islands (cf. Tomonari-Tuggle 1985:15).

In "Native Planters in Old Hawaii" Handy and Handy with Pukui (1972) report on their research and work with native Hawaiian residents of Hilo-Waiākea. Of Hilo they write:

Hilo as a major land division of Hawaii included the southeastern part of the windward coast... ...the northern portion, had many scattered settlements above streams running between high, forested kula lands, now planted with sugar cane. From Hilo Bay southeastward to Puna the shore and inland are rather barren and there were few settlements. The population of Hilo was anciently as now concentrated mostly around and out from Hilo Bay... The Hilo Bay region is one of lush tropical verdure and beauty... (Handy and Handy 1972:538).

In striking contrast to the ancestral islands of Kahiki, the broad windward slopes and valleys of Hilo-Hāmākua, and the expansive cultivable mountain slopes of Kona and Kaʻū on Hawaiʻi, permitted the development of a systematic and elaborate planting culture. These large 'āina (food producing lands) fostered the advancement agricultural practices and planting techniques. Agriculture evolved to a higher level in Hawaiʻi than in other Polynesian islands (ibid.:16). When the early Hawaiian settlers came to Hawaiʻi from Kahiki, they also brought with them many materials that were necessary for their survival. Among these "purposeful introductions" were the basic plants (dry- and wet-land taros, sweet potatoes, yams, gourds, breadfruit, coconuts, 'awa, sugar cane, and wauke etc.).

In a specific reference to the upland agricultural fields of Waiākea—the area of concern in this study—Handy and Handy report that:

On the lava strewn plain of Waiakea and on the slopes between Waiakea and Wailuku River, dry taro was formerly planted wherever there was enough soil. There were forest plantations in Pana'ewa and in all the lower fern-forest zone above Hilo town... (Handy and Handy 1972:539).

Citing narratives written by Isabella Bird, who stayed in Hilo in 1873, Handy and Handy record that use of the upland agricultural fields continued through historic times as well. Bird commented:

Above Hilo, broad lands sweeping up cloudwards, with their sugar-cane, kalo, melons, pine-apples, and banana groves suggest the boundless liberality of Nature (Bird 1964:38; IN Handy and Handy 1972:538).

An Overview of Hawaiian Land Use Practices and Traditions of the Land

As ancient Hawaiian land use and resources management evolved, the moku puni or islands were subdivided into land units of varying sizes, and the largest division was the moku-o-loko (district literally: interior island). It appears that the six districts of the island of Hawai'i and the system of developing smaller manageable units of land became formalized by the 16th century, in the reign of 'Umi-a-Līloa (cf. Kamakau 1961 and Tomonari-Tuggle 1985). Hilo is one of the six moku-o-loko of the island of Hawai'i. The large districts were in turn further divided into 'okana or kalana (regions smaller than the moku-o-loko, yet comprising several other units of land). In the legendary account of Ka-Miki, as translated from the Hawaiian language newspaper Ka Hōkū o Hawai'i (Maly Ms. 1992-1993), readers are told that the district of Hilo was divided into three geographical regions or 'okana. These divisions were Hilo Pali-kū (Hilo of the upright cliffs), which extended from Hāmākua side of Wailuku River to Ka'ula gulch on the Hilo-Hāmākua border, Hilo-one (The sandy shoreline zone of Hilo Bay), and Hilo Hanakāhi (Hilo of the chief Hanakāhi), which included the Waiākea-Pana'ewa region of Hilo. The current project area is situated in Hilo Hanakāhi, South Hilo, and because of its rich fishponds, good ocean fishing, and extensive dryland agricultural resources, the area was considered to be a choice land. Waiākea was the location of one of the powerful royal seats on the island of Hawai'i.

The next, and perhaps most important traditional unit of land was the ahupua'a; subdivisions of land whose boundaries were usually marked by an altar with a pig image carved of kukui wood, placed upon it. The ahupua'a may be compared to pie-shaped wedges of land that stretch from the ocean which fronts the land unit, to the islands' interior; like the larger land units, the ahupua'a were also divided into smaller manageable parcels. The 'ili lele were detached parcels with resources in various environmental zones; kīhāpai were gardens; māla were dryland agricultural parcels; and kō'ele were agricultural parcels worked by commoners for the chiefs, and these small land units are among those which were identified by the ancient Hawaiians. These smaller parcels were inhabited and managed by the maka'āinana (people of the land) and their extended families. In each ahupua'a—from mountain slopes to the ocean—the common people were generally allowed access to all of the various natural resources within a given ahupua'a (cf. Kamakau 1961 and Handy and Handy 1972).

Entire ahupua'a, or portions of the land were generally under the jurisdiction of appointed konohiki or lesser chief-landlords, who answered to an ali'i-'ai-ahupua'a (chief who controlled the ahupua'a resources). The ali'i-'ai-ahupua'a in turn answered to an ali'i 'ai moku (chief who claimed the abundance of the entire district). Thus, ahupua'a resources also supported the royal community of regional and/or island kingdoms. This form of district subdividing was integral to Hawaiian life and was the product of strictly adhered to resources management planning, and, it is in this setting that we find the project area lands of Wai-ākea, generally translated as meaning "Broad or Expansive Waters;" though waiākea is also a native variety of taro, similar to the better known lehua, but with black streaks along the edges of the stalks (pers. comm. Clarence Moku'ōhai Medeiros, May 10, 1996).

In 1979, McEldowney conducted an archaeological and historical literature search for the environs of Hilo town. In this study McEldowney presented a basic pattern for land use according to environmental zones. The current project area is situated within, zone two of her five environmental zones, and closely associated with zone one. Excerpts from McEldowney's 1979 study provides readers with the following comments relating to activities which happened within the general project area zone(s):

Zone I Coastal Settlement

The highest number of people in the early historic period, and subsequently the highest site probabilities, are found in this zone from sea level to roughly 20 to 50 ft elevation or 1/2 mile inland. Early descriptions, as well as the distribution of known sites, suggests that structures representing both permanent and/or temporary use occur along the entire coast.

In 1823, Ellis estimated that 2,000 people lived in 400 houses or huts along Hilo bay. Consistently, this village was described as a nearly continuous complex of native huts and garden plots interspersed with shady groves of trees, predominantly breadfruit (Artocarpus altilis) and coconut (Cocos nuciferas)... Gardens, outlined by windbreaks or small plantations of banana (Musa hybrids), sugarcane (Saccharum officinarum), and wauke (Broussonetia papyrifera) were primarily planted with dryland taro, mixed with sweet potatoes (Ipomoea batatas) and minor vegetable crops. Other economically valuable trees, mostly Polynesian introductions (e.g., Eugenia malaccensis, Pandanus odoratissimus, Thespesia populnea, Aleurites moluccana) grew singularly or as components of these groves (McEldowney 1979:15-16).

Zone II Upland Agricultural Zone [includes the lands of the present study area]

The extent of this zone varies in early journals, but most confirm that an expanse of unwooded grasslands or a "plain" behind Hilo town extended up to approximately the 1,500 ft elevation (i.e., the edge of the forest). Scattered huts, emphasized by adjacent garden plots and small groves of economically beneficial tree species, dotted this expanse.

The cumulative effects of shifting agricultural practices (i.e., slash-and-burn or swidden), prevalent among Polynesian and Pacific peoples, probably created and maintained this open grassland mixed with pioneering species and species that tolerate light and regenerate after a fire... With remarkable consistency, early visitors to Hilo Bay describe an open parkland gently sloping to the base of the woods. This open but verdant expanse, broken by widely spaced "cottages" or huts, neatly tended gardens, and small clusters of trees... Estimates as to the extent of the extent of this unwooded expanse ranged from between five and six miles (Goodrich 1826:4) to between three and four miles (Coan 1882:29) above the coast or village, with most falling between four or five miles.

The constituents of gardens and tree crops in the village basically continued in the upland except that dry-land taro was planted more extensively and bananas were more numerous... This same pattern occurred between Waiākea Pond and the Pana'ewa Forest in the four or five miles of open country dominated by tall grasses. Here stands of kukui (Aleurites mouccana), pandanus, and mountain apple became more conspicuous, with large areas of dryland taro planted in rocky crevices on the younger Mauna Loa flows... (McEldowney 1979:18-20).

The ahupua'a of Waiākea is one of the largest ahupua'a in all the islands, as such there are many smaller land units such as 'ili known in Waiākea. Among the smaller land divisions of Waiākea are Pana'ewa, Pū'āinakō, Keaukaha, Kāwili, Kalepolepo, Pi'opi'o, Mohouli, and Kalanakāma'a. In the Hawaiian Ethnological Notes (HEN) of the Bernice Pauahi Bishop Museum (BPBM), are various references to place names and site histories. HEN folder I:925 contains information provided by Kaouli Pahio who recorded boundaries of Waiākea as "extending from Leleiwi up to Mauna Loa and from Kalanakamaa to Mawae, 96 thousand acres in all" (Pahio IN HEN I:925).

While researching various ethnographic records of the Bernice Pauahi Bishop Museum (BPBM), the author reviewed Hawaiian language papers (handwritten and typed) collected by island historian,

Theodore Kelsey. Kelsey was born in Hilo in 1891, and spent his entire life (through 1987) speaking with elderly Hawaiian people, collecting their stories, and translating their writings. Among Kelsey's papers were found the following explanation of how the ahupua'a of Waiākea was established:

Kapapala and Waiakea were sub-chiefs who were told by their superior to run around the tracts of land bearing their names (from Tom Cook, surveyor) (BPBM SC Kelsey Box 1.5, July 2, 1921:2).

Kelsey also reported that Mrs. Kamakakuikalani told him that Waiākea was so named "because you could dig any where and find water" (ibid. July 18, 1921).

The Land of Kāwili, Waiākea, District of Hilo

In relationship to this study and questions about traditional practices associated with the lands of the study area, perhaps the most significant of Kelsey's papers was found in BPBM Archives—SC Kelsey; Box 1.5. In this file, Kelsey reports on various aspects of Hawaiian culture including place name origins—documenting place names locations, occurrences, and site histories. Two type written pages of one manuscript are a narrative, titled "Ahele Manu" (Bird snaring or bird trapping). In this text, Kelsey's informant, Reverend Henry Nālimu, explains how the land area of Kāwili, in Hilo, came to be named. Reverend Nālimu was a resident of Waiākea, and was also among the approximately 180 individuals who applied for and received a Waiākea Homestead Cane Lot Lease in 1918 (Lot No. 1209-A).

Today, the ancient land name "Kāwili" is still used, though now it is only remembered as a street which runs through a portion of that land. The University of Hawai'i-Hilo Campus is bounded on its southern side by Kāwili Street. Several interesting points are made in the narratives collected from Nālimu, among them are: (1) the land area of Kāwili was named in commemoration of a technique employed for capturing native forest birds in the area (described below); (2) the story tells us that birds collected in the area provided Hawaiians with both a food source and feathers used for making Hawaiian emblems of royalty; (3) bananas, a crop introduced by the Hawaiians, were grown in upper areas of Kāwili; and (4) the mai'a, or banana fruit also served as a food source for the endemic 'ō'ū (Psittirostra psittacea) birds, which were sometimes snared among the ripe fruit. As noted above, plantations of the mai'a were situated behind populated areas in cooler upland regions, up to around the 1,500 foot elevation.

The following Hawaiian texts are presented verbatim as recorded by Kelsey in about 1921 (including his use of diacritical marks). The English translation of the Hawaiian narratives was done by the author of this study, and reflects the basic tenor of the Hawaiian narratives. It is also noted here, that in the Hawaiian language, occurrences of certain words naturally imply a specific action or statement, the translation below reflects this natural inference.

Ahele Manu (Snaring and Trapping Birds) by H.B. Nalimu

Po'e kia manu o Laa, oia ka po'e ahele manu, kekahi me ka laau a kekahi me ka lehua. O ka mea ahele manu ma ka lehua malaila ka puka e hanai kokoke i ka lehua, he puka paa ke-ia. Kekahi piko o ke kaula ma ka la-la o ka 'ohi'a e paa ai. Elima, eono paha anana ka lo-ihi o ke aho mai ka puka mai a hiki i ka lima o ke kanaka e paa nei i ka piko o ke aho. A o ka puka aia ma kahi kokoke i ka lehua e kiko aku ai ka manu i ka lehua. I ka wa e lele mai ai ka manu lele no a ku maluna o ke-ia puka e kiko aku i ka lehua. A ia manawa e huki ai ke kanaka i ka piko o ke kaula a paa ka wawae o ka manu. Pii ke kanaka iluna a lawe i ka manu a hana hou aku i kela puka malaila. O ka akakane a me ka 'iiwi, a me ka 'o-o' iluna o ka pua lehua. Ahele me ke aho olona' makalii. Maluna o ka mai'a pala e ahele i' ai ka manu o-u'.

KĀWILI KĒPAU. O ke kepau oia ke kohu o ka 'ulu. E 'oki-oki ai i ka 'ulu a kahe mai ke kohu ke'oke'o, a i ka wa e maloo ai ua kohu 'la i ke ahiahi alaila ua paa a'e ua kohu la. Hele oe e ho-ulu-ulu ke-ia kohu a pau. Ho-ulu-ulu a nui, alaila lilo a'e'la ua' kohu nei i kepau. Alaila hele oe e 'ohi i hookahi kukui maka a hemo kona iwi 'a 'o kona 'i'o malama 'oe kela'. Hele hou oe i ka' pa-ihi ku-kepau (kind of clover) he pa-ihi 'ele-ele ia, a hoohui me ke kukui maka, alaila nau a wali ke kukui maka me ka pa-ihi. Hookomo iloko o ke kapa wauke (he mea uaua ia), alaila 'uwi' i ka wai o ke kukui a me ka pa-ihi iloko o ka 'opihi, oia ka "ipuhao" e kupa 'ai iluna o ke kapuahi. I ka wa e hoomaka ai e paila alaila 'oki-oki i ke kepau a liilii a hookomo iloko o ke-ia wai kukui me ka pa-ihi i paila ia. Kii elua ni-au ai 'ole ia, mau laau liilii paha e koali ai iloko o ke-ia wai paila. Pela e hanai a pau kela' wai a mo'a kela' kepau. Hookomo iloko o ke poho 'opihi a i 'ole he la-i' a wahi i ka la-i'. Kāwili 'iuka a'e nei o Mokau-lele. Neenee ke pulu 'ohi'a o ia wahi ilalo o ka pahoehoe.

Ilalo no oe e ku ai o ka pahoehoe a hana oe i ke kepau iluna o ka pua lehua. Ina ekolu, eha' pua lehua au i kāwili ai i ke kēpau alaila i ka wa e pili ai kekahi pua lehua i ka manu alaila alualu a loaa. Pee hou oe iloko o ka pulu 'ohi'a (kāhi o ka lau 'ohi'a e luhe ana ilalo, oia ka pulu 'ohi'a) a pili hou kekahi manu. Opa' ke poo o ka manu a make. Hookomo iloko o kekahi eke. Hola ekolu paha alaila ho'i, nui ka manu, i hookahi kaau, iwakalua, kanakolu paha. A kela manu makalii; ua momona----kuhikuhi kona i'o, momona. Oia ke kāwili kēpau.

LAAU KIA MANU. Ekolu, eha' paha anana ka lo-ihi o ka laau. Kau ia ka pua lehua iluna o ia laau nei mai kekahi 'ao-ao o ka laau a hiki i kekahi poo o ka laau. Hana elua kanaka, kekahi ma kekahi laau a kekahi ma kekahi. Kepau maluna o ka laau a he mau pua lehua mawaena o ke-ia mau kēpau----he laau kia manu ia |______|. Olaa ka aina kia manu a me Piihonua. Nui ka manu o-o' ma Puu O-o'. Malaila ka po'e kia manu e hele ai a loaa na lei hulu no na lii. O Pana-'ewa kekahi wahi kia manu.

Huki ka laau kia manu iluna mawaena o na 'ohi'a elua. Hana me ka 'upena kekahi. Huki ia iluna ka 'upena, hookahi laau maluna, hookahi laau malalo. He 'upena 'olona' maka hakahaka, a he kaula 'olona' ma na poo. 'Elima, eha', ekolu paha anana kela' 'upena palupalu. Lele no ka manu, paa ka wawae, paa ka pekekeu. Ina' hookahi, elua manu, waiho no pela', oia na manu e kahea ana i na manu e a'e. Nui ka manu, hookuu ilalo ka 'upena a huki hou iluna. He ulu 'ohi'a ma kekahi 'ao-ao a me kekahi 'ao-ao. Oia ka hana ana o ka po'e lawai'a manu. Ho'i i ka hale e wehe ai ka hulu o ka manu 'o-o'. Piha ke po'i i ka hulu a haku lei. Malalo o ka po-ae-ae o ka o-o' oia ka hulu a-a', a maluna o ka piapia oia me pue.

Snaring and Trapping Birds

Bird catchers (kia manu) of 'Ōla'a were people who snared ('ahele) birds. Some with branches and others with lehua blossoms. The individual who snared birds among the lehua made a snare (lasso) close to the lehua flower, the snare was secured there. One end of the line was securely fastened on the branch of the 'ōhi'a. The cord of perhaps five or six fathoms long, extended from the lasso (on the branch) to the man's hand where the end of the line was held tightly. The snare was placed close to a lehua blossom, where the bird would step (kīko'o) to the lehua. At that time, the man would then pull the end of the cordage and secure the feet of the bird. The man then climbed the tree, took the bird, and he would make the snare there again. The 'akakane ('apapane), the 'i'iwi, and the 'ō'ō were caught up in the lehua, snared with fine olonā cordage. The 'ō'ū bird was snared while it was on the ripe banana fruit.

Preparing Bird Lime to Kāwili, or Ensnare Birds. The bird lime (kēpau) is made from the sap of the breadfruit. Cut the breadfruit bark and the white sap flows, and when the sap is dry, say in the evening, the sap is hardened. You go and gather the sap. When

enough has been gathered, the sap can be made into bird lime. Then you go and gather some raw kukui, removing the shell, you keep its meat. You then go and get the "clover" for making bird lime ('ihi-ku-kēpau, the Nasturtium sarmentosum), it is a black pā'ihi, and you mix it with the raw kukui. Then you chew it, and the kukui and pā'ihi become slimy. This is put into a wauke bark cloth (it is a tough piece), then the juice of the kukui and pā'ihi are squeezed into the 'ōpihi (shell), it is the "pot" for cooking the broth over the fire. When it starts to boil, the ('ulu) gum is cut into small pieces and put in the juice of the kukui and pā'ihi so it can boil. Then get two coconut mid-ribs or perhaps little sticks to stir this boiling juice. This is how it is done until the juice is cooked and becomes the birdlime. It is then place into the empty 'ōpihi or a ti leaf, wrapped up in ti leaves. Kāwili is in the uplands adjoining Mokaulele [*]. Then go to where there is low branching 'ōhi'a (pulu 'ōhi'a), where the pāhoehoe is below.

You are below on the pāhoehoe, and you apply the birdlime around the lehua flowers. Now you kāwili (twist, i.e. apply) this bird lime in among three or four lehua flowers, then when a bird is stuck by one of the lehua that blossoms, you free it and it is caught. You then hide again among the low 'ōhi'a branches (a place where the 'ōhi'a tops droop down, that is the pulu 'ōhi'a), and catch another bird. You squeeze the birds head and it is killed. It is placed into a bag. Returning (home) perhaps around three 'o clock, there are many birds, perhaps forty, twenty, or thirty. Those small birds; when fat----the meat is tasty and sweet. That's how one prepares kāwili kēpau, or bird lime to ensnare birds.

SNARING BIRDS ON BRANCHES. The (decoy) branch is perhaps three or four fathoms long. Lehua blossoms are placed on this branch, from one side of the branch up to the tip of the branch. Two men do this job, one at one (end of the) branch and one at the other. Bird lime is placed on top of the branch along with many lehua blossoms in between this bird lime----this is a bird catchers (kia manu) branch |_____| [as drawn in manuscript]. 'Ōla'a and Pi'ihonua are lands of bird catchers. The are many 'ō'ō birds at Pu'u 'Ō'ō. It is there that the bird catchers go to get the feathers for adornments (lei) of the chiefs. Pana'ewa is also a place of the bird catchers.

The bird catchers (decoy) branch is pulled in between the 'ōhi'a lehua trees. One (person) uses the net. The net is pulled up , one branch is above, one branch is below. It is an open (wide) meshed olonā net ('upena olonā maka hakahaka), and olonā cordage at the tip. It is a soft (pliable) net perhaps five, four, or three fathoms long. As the birds fly their feet are caught, or their wings caught. Now if there are one or two birds, they are left, these are the birds that call out to the other birds. When there are many birds the net is let down (the birds taken), then the net is pulled up again. 'Ōhi'a growth is all around. So this is the work of the "bird-fishers," or lawai'a manu. They return to the house and then remove the feathers of the manu 'ō'ō. When the container is filled with feathers, a lei is made. Below the wing-pit is where the male 'ō'ō bird feathers are, and above on the back by the tail, are the pale yellow feathers.

Kekāhi Moʻolelo no ka ʻĀina o Waiākea-Hilo (Historical References to the Lands of Waiākea-Hilo)

In the early to mid 1800s, several Hawaiian historians began collecting and writing about Hawai'i's history. Among the prominent native writers are David Malo (1951), John Papa I'i (1959), and Samuel Mānaiakalani Kamakau (1961). Additionally, several foreigners, either visiting or having

^{*} Mokaulele is a land section generally above the existing Mohouli Street, portions of which were identified as the Waiakea Pasture Land" in the former TMK:2-4-01-41

taken up residency (e.g., Ellis 1963, Bird 1964, and Fornander 1917-1920 and 1969), added greatly to the efforts of recording history. I'i (1959) and Kamakau (1961) record events early in the life of Kamehameha that occurred in the Hilo-Waiākea region, and based on cited place names, it can be assumed that the study area lands were a part of the setting being described:

...Alapai, ruler of Hawaii [from c. 1730-1754] and great uncle of Kamehameha, and his wife Keaka took charge of him [Kamehameha]. Some years later, Alapai and his chiefs went to Waiolama in Hilo, where Keoua Kupuapaikalani, the father of Kamehameha, was taken sick and died. Before Keoua died he sent for Kalaniopuu, his older half brother and the chief of Kau, to come and see him. Keoua told Kalaniopuu that he would prosper through Kamehameha's great strength and asked him to take care of the youth, who would have no father to care for him. Keoua warned Kalaniopuu, saying, "Take heed, for Alapai has no regard for you or me, whom he has reared." After this conversation, Keoua allowed his brother to go, and Kalaniopuu left that night for Puaaloa [situated in the ahupua'a of Waiākea, in the area called Pana'ewa].

As Kalaniopuu neared Kalanakamaa [in Waiākea], he heard the death wails for Keoua and hastened on toward Kalepolepo [between Mohouli and Kāwili] where he had left his warriors. There they were attacked by Alapai's men, who had followed Kalaniopuu from Hilo. First the warriors from the lowland gained, then those from the upland... Kalaniopuu continued his journey and at midnight reached Puaaloa, where he arranged for the coming battle. The next day all went as he had planned, his forward armies led the enemy into the forest of Paieie, where there was only a narrow trail, branchy on either side and full of undergrowth. There his men in ambush arose up against the enemy warriors, and his rear armies closed in behind them...When news reached Alapai that his warriors had been destroyed, he sent another company of warriors to meet Kalaniopuu at Mokaulele on the outer road, which was an ancient road, known from the time of remote antiquity... (I'i 1959:3-4).

Kamakau further elaborates on the events and identifies the site location with the following comment:

...Keoua, called Ka-lani-kupu-a-pa-i-ka-lani-nui, fell ill of a lingering sickness at Pi'opi'o adjoining Wailoa in Waiakea and died there in 1752... His older brother Ka-lani-opuu was with his kahu [guardian-attendant] Puna above Kalepolepo at the time (Kamakau 1961:75).

Kamakau's narratives indicate that it was thought that the chief Alapa'i had perhaps caused Keōua's death. Heeding the words of his brother, Kalani'ōpu'u, attempted to secure Kamehameha and care for him. This is how the war between Alapa'i and Kalani'ōpu'u started at Kalepolepo. Following this fight, the forces of Alapa'i and Kalani'ōpu'u met again at Pā'ie'ie and Pua'aloa (Kamakau 1961:75-76). In a later account, pertaining to Kamehameha's battles of conquest for rule of the island of Hawai'i, Kamakau further identifies the location of Pua'aloa – Kamehameha's forces traveled from Ka'ū, and "As he [Kamehameha] was descending, just out of Pana'ewa at a place called Pua'aloa, he met with a war party of Kahekili..." (Kamakau 1961:125).

Following the death of Kalaniʻōpuʻu in 1782, the island of Hawaiʻi was to have been ruled by Kīwalaʻō, Kalaniʻōpuʻu's son, while the gods and heiau were to be cared for by Kamehameha I. Disagreements arose over the division and redistribution of lands, and shortly afterwards, Kīwalaʻō was killed at Mokuʻōhai, South Kona. I'i records that while the division of land was being discussed, Waiākea was likened to a food container (I'i 1959:14); a symbolic reference to the agricultural and fishpond resources of the land. Following Kīwalaʻō's death, the island was basically controlled by three individuals, two cousins and their uncle. Keawemauhili the sacred half brother of Kalaniʻōpuʻu, resided in Hilo and controlled Hilo and Hāmākua. Keōua-kūʻahuʻula (son of Kalaniʻōpuʻu) resided in Kaʻū, while Kamehameha I, also a nephew of Keawemauhili's and cousin of Keōua's, controlled Kohala and Kona.

In c. 1790, a dispute arose between Keawemauhili and his nephew Keōua, and Keōua attacked and killed Keawemauhili. Kamakau reports that Keōua divided the lands of Hilo District between his chiefs and warriors, and "the fat Mullet of Waiakea and Pi'opi'o became theirs" (Kamakau 1969:152). In 1791, Keōua was killed and Kamehameha I retained Pi'ihonua, Punahoa, and Waiākea as his personal land holdings in Hilo. Liholiho, or Kamehameha II was born in Hilo in 1797 (Kamakau 1961:260), and because of the value of Waiākea with its agricultural and fishpond resources, Liholiho retained Waiākea until his death in 1824. For a time, a granddaughter of Keawemauhili's, Kaunuohua, held Waiākea, but in the Māhele, or Land Division of 1848, Kauikeaouli (Kamehameha III), assumed the rights to Waiākea (Indices of Awards 1929:26). Kauikeaouli retained Waiākea until his death in 1854, the ahupua'a was among the "Crown Lands" which under the monarchy, came to be held in perpetuity by the rulers of Hawai'i.

Kekāhi Moʻolelo 'Āina e A'e (Another Story of the Land)

There are several legendary accounts which are associated with Hilo Bay vicinity, but their relationship to the study area is difficult, if not impossible to determine. Rather than recount here, the legends and historical references which have been previously cited in other studies, the narratives presented below, offer readers a new resource for interpretation of the ancient Waiākea community. This section of the study presents readers with additional information, that is less well known than the writings cited above. None the less, this section contains important legendary information written by Hawaiians in their native language in the early 20th century. The narratives have recently been translated into English by the author of this study, and are included here because they provide us with information that is otherwise available to only a limited number of readers.

Hawaiian legends provide readers with documentation pertaining to land use, practices, and features of the cultural landscape, the narratives also convey values and expressions of the relationship between ancient Hawaiians and their environment. The original Hawaiian texts for "Ka'ao Ho'oniua Pu'uwai no Ka-Miki" (The Heart Stirring Story of Ka-Miki) (Maly Ms. 1992-1993), which were the source of the following translations, were printed in the weekly Hawaiian-language newspaper Ka Hōkū o Hawai'i, published in Hilo between 1906 to 1948. The particular article was presented in serial form where it ran for four years (1914-1917). The legend appears to have been primarily recorded for the paper by Hawaiian historians John Wise, and J.W.H.I. Kihe. During the process of working on the translations, numerous other Hawaiian legendary accounts were reviewed as well while trying to locate particular place names and confirm textual content. Some of the pertinent narratives are included here because of their importance to understanding the region.

The narratives were written by noted Hawaiian scholars of the late 1800s—early 1900s. The authors used place names as the line with which to tie together fragments of site specific stories that had been handed down over the generations. Thus, while in many cases, the personification of individuals and their associated place names may not be "ancient," the site documentation within the story is of great value. The story of Ka-Miki provides readers with a wealth of information pertaining to more than 790 place names and documents site and community histories, local and regional practices, ceremonial sites, practices associated with contests and competitions, and mele, chant texts. The following English translations (completed by the author of this report) are a synopsis of the Hawaiian texts, with emphasis upon the main events of the narratives of the legendary account.

Ka'ao Ho'oniua Pu'uwai no Ka-Miki

The "Heart Stirring Story of Ka-Miki" is about two supernatural brothers, Ka-Miki (The quick, or adept, one) and Maka-'iole (Rat [squinting] eyes], who traveled around the island of Hawai'i along the ancient ala loa and ala hele (trails and paths) that encircled the island. During their journey, the brothers Ka-Miki and Maka-'iole competed alongside the trails they traveled, and in famed kahua (contest arenas) and royal courts, against 'ōlohe (experts skilled in fighting or in other competitions, such as running, fishing, debating, or solving riddles, that were practiced by the ancient Hawaiians).

They also challenged priests whose dishonorable conduct offended the gods of ancient Hawai'i. Ka-

Miki and Maka-'iole were empowered by their ancestress Ka-uluhe-nui-hihi-kolo-i-uka (The great entangled growth of uluhe fern which spreads across the uplands), a reincarnate form of the goddess Haumea (the creative force of nature; also called Papa and Hina; who was also a goddess of priests and competitors).

The story is set in about the 1300s, at the time when Pili-a-Kaʻaiea (Pili) was sovereign chief of all Kona. It was while on this journey that the brothers came to be at the royal court of the chief Waiākea-nui-kumu-honua, who was the brother of the sacred chiefess Panaʻewa-nui-moku-lehua, and the chief Piʻihonua-a-ka-lani.

Selected Place Names and Narratives from the Legend: Ka'ao Ho'oniua Pu'uwai no Ka-Miki

Waiākea (literal translation: Expansive - much water; an ahupua'a land unit name).

Kalanakāma'a (interpretive translation: To undo one's ti or kapa twined sandals).

Kalepolepo (literal translation: The dirty one or low born chief; cf. lepolepo a derogatory term used to describe a low born chief; an 'ili situated on the Kāwili side of the Waiākea pond complex).

Kapunakō (Interpretive translation: Water drawn from a spring; a spring in upland Waiākea).

Kūkulu (literal translation: border or edge; a land area in Waiākea, near the Kea'au-'Ōla'a-Waiākea boundary, and crossed by an ancient trail).

Pana'ewa (literal translation: Crooked or unjust place; a land section of Waiākea, on the Puna side of Kāwili).

'Ohele (the Puna-side shoreline where Wailoa enters the sea; now in the vicinity of Sui San fish market).

'Ūpēloa (interpretive translation: Extreme grief; a land section with a hala grove and stream running through it near the boundary between Waiākea Kukuau 1st).

...Ka-Miki, Maka-ʻiole and their companion Keahialaka departed from the compound of Kapuʻeuhi [in ʻŌlaʻa] and descended the ala loa towards Hilo to continue their journey. The travelers arrived at a large compound and community, where they saw a man coming towards them with a club. This man was Kūkulu-a-hāneʻe-a-hina-pū [Kūkulu]. Kūkulu was a guardian of the chiefess and lands called Panaʻewa-nui-moku-lehua [Great Panaʻewa of the lehua forest]. Panaʻewa was a sacred chiefess of Hilo, the sister of the chiefs Waiākea and Piʻihonua.

The chiefess' compound and surrounding community were forbidden to strangers, and Kūkulu regularly killed unaware travelers [thus the name "Unjust place]. Kūkulu challenged Ka-Miki mā but he was quickly defeated, and Ka-Miki left him there as an example to other 'ōlohe and to receive his due justice. Ka-Miki mā then continued their journey into Hilo, seeking out 'Ūpēloa, Kuʻu-aho-hilo-loa, and Haili-kula-manu.

The lands of Waiākea were named for the high chief Waiākea-nui-kumuhonua, the brother of Pi'ihonua-a-ka-lani [k] and Pana'ewa-nui-moku-lehua [w]. After departing from Pana'ewa, Ka-Miki mā met Haili-kula-manu, who was a guardian of Waiākea. Haili led

Ka-Miki and his companions to his chief's compound at Kalepolepo [February 17, 1916]. Arrangements were made for Ka-Miki to compete with the 'ōlohe – experts of Waiākea, with the events to be held at the kahua [contest site] at Kalepolepo. 'Ūpēloa the champion – land administrator and war councilor of Waiākea, and an expert fighter with 'ōka'a lā'au [war clubs] was called to Kalepolepo.

The kūkini Kuʻu-aho-hilo-loa went throughout the region announcing that contests would be held at Kalepolepo, and in a short time the entire area was filled with people, all wondering who would attempt competing against 'Ūpēloa. Ka-Miki mā were then called to the arena, thus Ka-Miki—who is the image of the war club of Ka-uluhe-nui-hihi-kolo-i-uka—entered the kahua and the contest rules were set. It was agreed that the method of competition would be 'ōka'a lā'au [war club fighting], and that the looser would be killed and baked in an imu.

'Ūpēloa exited the hālau mokomoko [contestants long house] with great agility and speed, and the crowd cried out with excitement at his ability. 'Ūpēloa also held his finely worked club which was called 'Ohi-ka-lau-o-ke-pāhili, the club was also called Ka-piko-o-Wākea. 'Ūpēloa was so strong, that no competitors had ever stood up to him. As 'Ūpēloa and Ka-Miki stood on the kahua, readying to fight — Pi'ikea, the spear fighting expert of the chief Nā-mau'u-a-Pā'ao asked, "O youth where is your club that you may stand against the spear fighting warrior of the chief Waiākea-nui-kumuhonua?"

Ka-Miki answered, "I have no club, my only weapon is my hands, but I have learned to use the war club from my club fighting teacher, I have used green hau spears, stripped like the maile [Alyxia olivaeformis], I have used clubs made of the uhiuhi [Mezoneuron kauaiensis] and the koai'e [Acacia koaia], the resonant clubs made of the resilient kauila [Alphitonia ponderosa] trees which grow at Pu'ukapele [Kaua'i]; my expertise covers all manner of war club fighting... and protecting myself from the top of my head to the bottoms of my feet."

'Ūpēloa then told Ka-Miki, "If you could truly escape from my club, your knowledge would be great, beyond compare. But coming here with this boasting, you are full of deceit and impertinence like no other, and you will not be spared from my club."

Pi'ikea then went to the edge of the kahua, and asked 'Ūpēloa to wait a short time before fighting so that he go get his club for Ka-Miki to use. 'Ūpēloa responded, "No! You are not his teacher, you are not the alternate for this errant youth, that you should give him your club. He says that his hands and fingers are adequate. Unless you wish to be his moepu'u [death companion] you will stop this waste of time. Pi'ikea if you are stubborn about it you and this youth shall both be the pigs which quench the fires of the imu today." Ka-Miki called to Pi'ikea, "I greatly appreciate your consideration, but it has been taken as a waste of time. With that, 'Ūpēloa leapt to attack Ka-Miki in the manner of Ka-piko-o-Wākea, thinking that he would strike Ka-Miki with the blow. Ka-Miki leapt over 'Ūpēloa and struck his hand. Because of the force of this blow, 'Ūpēloa lost his club and it flew to Maka-'iole who caught the club and held it.

'Ūpēloa moved to attack Maka-'iole, but Ka-Miki leapt in front of 'Ūpēloa and commanded him to back off and maintain the requirements of the contest. 'Ūpēloa did not heed the command because he was so outraged, and he reached to grab Ka-Miki, thinking to break him into little pieces. Ka-Miki then stepped behind 'Ūpēloa and grabbed him by the thighs. He then picked 'Ūpēloa up and threw him from the arena before Maka-'iole and Keahialaka. Keahialaka then grabbed 'Ūpēloa and bound him. Ka-Miki then called out to 'Ūpēloa with a place name saying that commemorates his name to this day:

Ka manu o Kaupe'a ke 'ope'ope ala i ka ulu hala o 'Ūpēloa e — The bird of Kaupe'a ['Ūpēloa himself] is all bundled up like the pandanus which grows at 'Ūpēloa.

Waiākea heard that 'Ūpēloa had been defeated and was greatly surprised that his war counselor and war club fighting expert had fallen. Waiākea then called to his messenger Kapunakō to go get Kaūmana the foremost teacher of lua, ha'iha'i, kākā lā'au [bone breaking fighting, and spear fighting], and all manner of fighting and bring him to the kahua. Upon arriving before his chief, Kaūmana asked Waiākea to sent his messenger Kapunakō, to bring Kalanakāma'a, Kaūmana's foremost student to join him at the kahua of Kalepolepo.

[The land of] Kalanakāma'a was named for Kalana-kāma'a-o-uli, the foremost 'ōlohe student of Kaūmana, and champion of Waiākea. Kalanakāma'a was the ward of Kīpuka 'āhina [k], Hale-aloha [w] and Hale-loulu [k], who dwelt above Hilo at Kīpuka 'āhina.

When Kapunakō arrived before Kīpuka 'āhina, he spoke about the great rains and rivers of Hilo; a poetic reference to the many skilled which Hilo was famed. It was in this way that Kapunakō described the overwhelming skills of Ka-Miki and his victory over 'Ūpēloa. Kīpuka 'āhina then asked – 'ōlelo no'eau:

Māmā Hilo i ka wai? – Is Hilo [without] lightened of its water?

Kapunakō responded – 'Ae māmā Hilo i ka wai 'ole, ua kau i ka lani ka holo [wa'a] ua o Hilo, na ka Mālualua e ki'i ala i pulu ka liko o ka lehua a me ka māmane! – Indeed one can move swiftly through Hilo, for the streams are without water, the water trough [i.e., the clouds] of Hilo are set in the heavens, it is the Mālualua which fetches moisture for the budding lehua and māmane.

Kīpuka 'āhina then asked in amazement – Nawai e nele o Hilo i ka wai? He lau ka pu'u, mano ka ihona, he kini nā kahawai o Hilo, e 'au i ka wai o Hilo a pau ke aho! – Who could possibly make Hilo destitute of water? There are 400 hills, 4,000 places to descend, and 40,000 streams to cross, indeed one is worn out swimming through the waters of Hilo!

It was in this way that Kīpuka 'āhina learned that a master 'ōlohe had come to Hilo challenging it's many 'ōlohe. Using his ipu hōkiokio [gourd nose flute], Kīpuka 'āhina awakened Kalanakāma'a, for this was the only way in which Kalanakāma'a could be safely awakened, or he would kill who ever awakened him [February 24-March 2, 1916].

Kalanakāma'a joined his teacher Kaūmana, and met with the assembly at Kalepolepo. Carrying his club Pūpū-kani-oe-i-ka-ua-o-Hilo [Land snail singing in the rain of Hilo], Kalanakāma'a entered the kahua with Kaūmana and a great cry arose praising the abilities of these Hilo champions. Ka-Miki and Kalanakāma'a exchanged taunts, Ka-Miki stated that Kalanakāma'a would become the kāma'a lau-'ī i hili kuanaka 'ia [twined ti leaf sandals] which Ka-Miki wears upon his feet. Outraged, Kalanakāma'a leapt to attack Ka-Miki with his club Pūpū-kani-oe-i-ka-ua-o-Hilo, Ka-Miki leapt out of the way, and took 'Ūpēloa's club from Maka-'iole. Seeing his student miss, Kaūmana called out to Kalanakāma'a telling him how to strike Ka-Miki — 'ōlelo no'eau:

Kau i ka lani ka holoua o Hilo, hilo 'ia i ke aho a ka ua he 'lo ka hauna lā'au e ki'i ai, a'ohe wahi pā 'ole, pā ma ke po'o a hō'ea i nā wāwae, pā no pau ka 'oni, 'oni no he aīwaiwa ia, he hialōloa no ka naele, alaila ho'i hou ka hauna lā'au a ke koa kua makani. — Placed in the heavens is the

water trough of Hilo, entwined in the cordage of the rains, 'lo [Hawk] is the war club strike to use, for there is no place that can't be hit. Strike at the head and reach to the feet, for once struck, there will be no movement. If there is any movement, he is indeed a skilled expert of the depths [deepest knowledge], then return and strike again in the manner of the wind swept koa tree [March 9, 1916].

Ka-Miki then attacked Kalanakāma'a and quickly over came him, Kaūmana then leapt to the kahua and was beaten as well. After Ka-Miki defeated Kaūmana, word spread throughout the region, and Pi'ihonua, Waiākea's brother called his council together wondering how they might help regain the honor of Hilo from this stranger.

Hanakāhi told Pi'ihonua that it would be best not to fight, Pi'ihonua then said that perhaps it had been a mistake to honor Hanakāhi with his title as champion, and marriage to 'Ohele [March 16, 1916]. Hanakāhi told Pi'ihonua all of the things that Nā-Mau'u-a-Pā'ao had told Pi'ikea about Ka-Miki, and said it would be unwise to compete, and thus leave all of the champions of Hilo in disgrace.

Hanakāhi himself was a master 'ōlohe trained by Maulua of Hilo-Palikū, he was skilled in kākālā'au [spear fencing], pololū [long spear fighting], ihe laumeki [barbed spear fighting], and all manner of knowledge. Hanakāhi told his chief, "It is my desire to go before them [Ka-Miki mā], not in the manner of a competitor, but in the spirit of friendship, and to learn from them the things which they have been taught by their teachers. If I succeed, I will be the foremost 'ōlohe of all Hilo, and I will serve as their guide as they journey from one border of Hilo to the next border of Hilo." Hanakāhi then asked his chief, "Do you agree?" Pi'ihonua told Hanakāhi to go and compete first, then if he was securely bound to surrender and ask for friendship.

Hanakāhi approached Kalepolepo, and the contest between Ka-Miki and himself was announced. 'Ōka'a lā'au [club-spear fighting] was selected as the method of fighting, and when Hanakāhi asked Ka-Miki, "How shall the victory be determined?" Ka-Miki said, "By the breaking of one's spear."

Ka-Miki greatly admired the nature of Hilo-Hanakāhi, and as they competed, Ka-Miki dodged each of the thrusts. To those gathered at the kahua, it was as if Ka-Miki was the teacher and Hilo-Hanakāhi was the student. Hilo-Hanakāhi tried each technique he had learned from his teacher, but was unable to score against Ka-Miki. Worn out, Hilo-Hanakāhi collapsed and was taken off of the kahua, borne in a net. Hilo-Hanakāhi acknowledged the nature and skills of Ka-Miki and surrendered to him, thus ke 'ahi kananā [the fierce tuna fish] of Hilo befriended Ka-Miki mā upon the kahua.

Hilo-Hanakāhi returned to the chief Piʻihonua and they spoke of the events which had taken place at Kalepolepo. Piʻihonua then sent his messenger to invite Ka-Miki mā to his compound in the manner of aikāne [companions] [3/23/1916]. Ka-Miki mā were well hosted by Piʻihonua, and Ka-Miki asked Hilo-Hanakāhi to accompany them to the border of Hilo and Hāmākua at Kaʻula. Thus Hilo Hanakāhi traveled with Ka-Miki mā through out the rest of Hilo [March 30, 1916].

A Chronology of Selected Early Historic References to Waiākea-Hilo

In 1823, British missionary William Ellis and members of the American Board of Commissioners for Foreign Missions (ABCFM) toured the island of Hawai'i seeking out community centers in which to establish church centers for the growing Calvinist mission. The writings of Ellis and his companions (Ellis 1963) offer readers a glimpse into the nature of communities, agricultural fields, and natural

landscape around the island. The selected narratives below, provide readers with specific descriptions of Waiākea-Hilo and neighboring lands, and the land between Waiākea and Kea'au. Bishop (IN Ellis 1963) journeyed from Waiākea to Kea'au and reported:

...The country was populous, but the houses stood singly, or in small clusters, generally on plantations, which were scattered over the whole country. Grass and herbage were abundant, vegetation in many places luxuriant, and the soil, though shallow, was light and fertile (Ellis 1963:212).

On the return journey from Kea'au (Kaau) to Waiākea, it was reported:

Leaving the village of Kaau, we resumed our journey, and after walking between two and three hours, stopped in the midst of a thicket to rest, and prepare some breakfast.

The natives produced fire by rubbing two dry sticks, of the hibiscus tiliaceus [hau], together; and having suspended over it a small iron pot, in gypsy style, upon three sticks, soon prepared our food. At half-past ten we resumed our walk, and passing about two miles through a wood of pretty large timber, came to open country in the vicinity of Waiakea. At one p.m. we reached the house of the chief Maaro, the chief, who, though very ill, was glad to see us (ibid.:213)

At Waiākea-Hilo, the party was under the care of the chief Ma'alo (written Maaro), Ellis and companions offer the following narratives:

Hilo a Rainy District

Dense fogs and heavy rains are more frequent at Waiakea, and over the whole division of Hiro, than in any other part of the island... (Ellis 1963:215).

Discussions with Maaro, Chief of Waiakea

Leaving Maaro, we returned through a highly cultivated part of the district. Everything in nature was lovely, and the landscape around awakened emotions... We were highly gratified with the fertility of the soil, and the luxuriance of the verdure... (ibid.:222)

Ellis commented on the dwellings of the natives of Waiākea, and records that certain materials for construction were collected from the uplands:

Status of the Natives Compared with Society Islanders

The houses of the natives who we had visited today, like most in this part of the island, where the pandanus is abundant, were covered with the leaves of this plant, which, though it requires more labour in thatching, makes the most durable dwellings.

The inhabitants of Waiakea are peculiarly favoured in have woods producing timber, such as they use for building within three or four miles of their settlement, while the natives in most parts o the islands have to fetch it from much greater distance... (ibid.:224).

Ellis also recorded that during his visit to Waiakea, the chief "Maaro" was ill, and that on one day when he went in search of the chief, the chief had moved in land. Ellis commented that he traveled a mile and a half inland to the house where Maaro was then staying (ibid.:236). This is a significant statement, noting that a chiefs' dwelling, and presumably the retainers and resources to support such a residence were situated in the upland region.

Rivers Emptying into Bay

There are three streams of fresh water, which empty themselves into the bay. One on the western angle is called Wairuku. It rises near the summit of Mouna-Kea, and, after taking a circuitous course for several miles, runs rapidly into the seas.

Two others, called Wairama and Waiakea, rise in springs, boiling up through the hollows of the lave, at a short distance from the shore, fill several large fish-ponds, and afterwards empty themselves into the sea. Waiakea, on the eastern side of the bay is tolerably deep, and is navigated by canoes and boats some distance inland.

Products of Waiakea

The face of the country in the vicinity of Waiakea is the most beautiful we have yet seen, which is probably occasioned by the humidity of the atmosphere, the frequent rains that fall here, and the long repose which the district has experienced from volcanic eruptions.

The light fertile soil is formed by decomposed lava, with a considerable portion of vegetable mould. The whole is covered with luxuriant vegetation, and the greater part of it formed into plantations, where plantains, bananas, sugar-cane, taro, potatoes, and melons, grow to the greatest perfection.

Groves of Cocoa-nut and breadfruit trees are seen in every direction loaded with fruit, or clothed with umbrageous foliage. The houses are mostly larger and better built than those of many districts through which we had passed. We thought the people generally industrious; for in several of the less fertile parts of the district we saw small pieces of lava thrown into heaps, and potato vines growing very well in the midst of them, though we could scarcely perceive a particle of soil. There are plenty of ducks in the ponds and streams, at a short distance from the sea, and several large ponds or lakes literally swarm with fish, principally of the mullet kind. The fish in these ponds belong to the king and chiefs, and are tabued to the common people...

The district of Waiakea, though it does not include more than half the bay, is yet extensive. Kukuwau in the middle of the bay is its western boundary, from which, passing along the eastern side, it extends ten or twelve miles towards Kaau [Kea'au], the last district in the division of Puna.

Recommended as a Mission Station

Taking every circumstance into consideration, this appears a most eligible spot for a missionary station. The fertility of the soil, the abundance of fresh water, the convenience of the harbour, the dense population, and the favourable reception we have met with, all combine to give it a stronger claim to immediate attention than any other place we have yet seen, except Kairua.

There are 400 houses in the bay, and probably not less than 2000 inhabitants, who would be immediately in the operations of a missionary station here, besides the populous places to the north and south, that might by occasionally visited by itinerant preachers from Waiakea (ibid.:239-240).

Waiākea (1824-1850): A Hawaiian Community Changes

Within the year following the visit of Ellis and the members of the ABCFM, a church was established and by mid 1825 school was being attended by native students. This was a period of dramatic change in the Hawaiian Kingdom as well. Liholiho (Kamehameha II) and his wife Kamāmalu died while in England in 1824, their bodies were returned to Hawai'i in May 1825 by Lord Byron (Kamakau 1961:257). While preparing for the return voyage to England, Lord Byron had the H.M.S. Blonde port

in Hilo Bay for refitting of the ship. Several journals were recorded pertaining to this visit, one, by the American missionary, C.S. Stewart (1970), who accompanied Byron in Hawai'i, provides additional details on the nature of the land—residences, plantations, and population—shoreward and mauka of Waiākea. Upon departing from the ship, Stewart reports:

June 13, 1825 — As we approached the land..., we were greatly delighted with the verdure, luxuriance, and beauty of the landscape opening to us, in the neighbourhood of the bay of Hido... Though in a state of nature, this large district had the appearance of cultivation, being an open country covered with grass, and beautifully studded and sprinkled with clumps, and groves, and single trees, in the manner of park scenery, with a cottage here and there peeping from beneath their rich foliage. The mountains were entirely covered with clouds, or the prospect would have been rendered more delightful from their sublimity...

...The beach is covered with varied vegetation, and ornamented by clumps and single trees of lofty cocoa-nut, among which the habitations of the natives are seen, not in a village, but scattered every where among the plantations, like farm-houses in a thickly inhabited country... At a very short distance from the beach, the bread-fruit trees were seen in heavy groves, in every direction, intersected with the pandanus and tutui, or candle-tree, the hibiscus and the acacia, &c. The tops of these rising gradually one above another, as the country gently ascended towards the mountains in the interior, presented for twenty or thirty miles in the southeast, a delightful forest scene, totally different in extent from anything I had before witnessed on the Islands... (Stewart 1970:361-363).

One additional brief comment from Stewart is offered here, his description of passing through Waiākea on Lord Byrons' journey to Kīlauea. We find that Ma'alo, the district chief mentioned by Ellis above is still alive, and has been charged by Ka'ahumanu with providing for the needs of Byron's party (Stewart 1970:368). Stewart reports that the group marched in "single file along the narrow winding path which formed our only road," out of Waiākea (ibid.:369). Today, Kīlauea Avenue follows the same basic path as that of the main ancient trail out of Hilo to Puna and on up to the volcano at Kīlauea. Stewart noted:

For the first four miles the country was open and uneven, and beautifully sprinkled with clumps, groves, and single trees of the bread-fruit, pandanus, and candle tree (ibid.).

In 1979 McEldowney reported on her findings of a study of archaeological and historical literature research for the South Hilo region. Her study provides readers with a concise overview of historic period occurrences from 1824 through 1895, and a summary of her narratives is presented here.

In the period between 1824 to 1848, McEldowney notes that Hawaiian land use practices and tenancy were maintained much as they had been since prior to western contact. Though culturally, the arrival of missionaries in 1824 heralded change of Hawaiian spiritual concepts and values and family systems. These social changes fostered an environment of change in the Hawaiian landscape as well. In this period (between 1824-1848), there was a marked decline of the Hawaiian population and the native Hawaiian religious- and political- systems were deteriorating. McEldowney notes:

Major causes of this decline were a continuous decrease in the birth rate, increased deaths due to diseases, and emigration to developing centers of population and through employment on sailing vessels and in foreign ports.

The greatest changes in the Hawaiian religious and political systems resulted from pressures due to increasing involvement in international trade, world political affairs, and

religious movements, exemplified by the effects of the Chinese sandalwood trade and the efforts of the first missionaries to exclude Catholicism (McEldowney 1979:33-34).

One result of the missionary effort throughout the islands, was to bring the traditionally dispersed native population into western-styled towns and population centers, where the "fold" could be under the watchful eyes of church leaders. On the island of Hawai'i, the "port" of Hilo, was a favored spot for marketing goods to foreign vessels, and as trade increased, western businesses began setting up shops. The traders had specific demands for crops and various materials with which to supply foreign vessels, and as a result, Hawaiian agricultural production specialized as "new crops and ornamental and adventive plants" were introduced (McEldowney 1979:35). This specialization impacted Hawaiian crop production, land use and the landscapes as well.

In a letter to Reverend Bingham, Hilo's Reverend Titus Coan reported on an event in 1837 impacted Hilo. On November 7, 1837, a tsunami washed in across all of the shoreline of Hilo Bay, Coan wrote:

...God has recently visited this people in judgment as well as mercy... ...at 7 o'clock P.M., as we were calling our domestics together for evening prayers, we heard a heavy sound as of a falling mountain upon the beach. This noise was followed by loud wailing and cries of distress, extending for miles around the shores of the bay... House furniture, calabashes, fuel, timber, canoes, food, clothing, everything floated wild upon the flood. The waters rushed up valleys, carried away fish-ponds, and swept over many plantations of food... (Coan IN Bingham 1969:519).

McEldowney reports that the tsunami heralded a "great religious revival" in Hilo, which in-turn brought about great changes in Hawaiian residency patterns:

During the revival's height [1837-1840], as many as 10,000 people congregated in Hilo at one time. Among other consequences, this led to a severe alteration of traditional habitation and garden within the Hilo area, the permanent or temporary abandonment of entire villages in outlying area, and a deeper disruption of traditional Hawaiian beliefs and subsistence patterns (McEldowney 1979:36).

In 1848, a measles epidemic raged through Hilo and around the island, "killing an estimated one-third of the population" (McEldowney 1979:37). Without a doubt, the effects of the various occurrences noted above (i.e., consolidation of community, modification of agricultural production and land use, development of a trade center, tsunami, and decline of population as a result of epidemics...) would have had a direct impact on the native population and its use of lands within the current study area—land that is a component of McEldowney's Zone II. Indeed, as the population declined, the "scattered huts, emphasized by adjacent garden plots and small groves of economically beneficial tree species" (McEldowney 1979:18), and residences as described by Ellis (1963), that occurred in Zone II, would have been among the earliest to disappear.

Further, it is noted that in the period between 1845-1865, even in the growing population center of Hilo Town, the traditional huts and garden complexes gave way to wooden structures that where primarily situated between Waiolama and Wailuku Rivers. During this period sugarcane fields also began to be planted on the upland slopes (McEldowney 1979:37). By this time, foreign business interests had gained a stronghold in the Hawaiian Kingdom, and western land ownershipmanagement practices began replacing the traditional Hawaiian system. This movement led to the Māhele (Land division) of 1848, by which native tenants of the land were "given the opportunity" to acquire land upon which they dwelt and/or land which they personally cultivated. Because of the diminishing Hawaiian population and increasing foreign demands for the right to acquire land for economic development, foreigners were also allowed the opportunity to purchase land by 1850 (Kame'eleihiwa 1992:300). This opened the door to foreign business interests, primarily American, and the stage was set for the full scale development of a variety of businesses, including Hawai'i's sugar industry.

The Māhele—Land Division of 1848

In 1848, the Māhele (a division of land between the crown, government, lesser chief's or konohiki, and native tenants of the land), a Western-style ownership system was set in place. The Māhele represented a radical restructuring of the Hawaiian land management system; it defined the land interests of the Mō'ī Kauikeaouli (Kamehameha III), the high-ranking chiefs, and the konohiki, who were originally those in charge of tracts of land on behalf of the king or a chief (Chinen 1958:vii and Chinen 1961:13). Preceding this "division," all land and natural resources in the Hawaiian Islands were held in trust by the high chiefs, and their use was given at the prerogative of the high chiefs (ali'i 'ai ahupua'a or ali'i 'ai moku) and their representatives or land agents (konohiki), who were generally lesser chiefs as well. The maka'āinana, or commoners resided upon the lands with basic tenants rights, including access to resources from the mountains to the sea, and the right to plots of land which they cultivated and dwelt upon. in return they provided services, foods, and material resources to the ali'i.

More than 250 of the highest-ranking chiefs and konohiki in the kingdom joined Kamehameha III in this division. The initial Māhele was signed on January 27, 1848 by Kauikeaouli and Princess Victoria Kamāmalu (the king's niece), and by her father Mataio Kekūanaō'a, and Ione [John Papa] I'i, a close advisor of the king's and guardian of the princess. The last Māhele was signed by the King and E. Enoka on March 7, 1848 (Chinen 1958:16). The Māhele did not convey title to any land, instead, the chiefs and konohiki were required to present their claims to the Land Commission to receive awards for lands quiet claimed to them by Kamehameha III. They were also required to pay commutations to the government in order to receive royal patents on their awards. Until an award was issued, title remained with the government. The lands awarded to the lesser chiefs and konohiki became known as Konohiki Lands. Because there were few surveyors in Hawai'i at the time of the Māhele, the lands were identified by name only, with the understanding that the ancient boundaries would prevail until the land could be surveyed. This expedited the work of the Land Commission and speeded the transfers (Chinen 1961:13).

During the Māhele, all land was placed in one of three categories: Crown Lands (for the occupant of the throne), Government Lands, and Konohiki Lands. The right to ownership lands within these categories were all "subject to the rights of the native tenants" (Laws of Hawaii 1848:22). The hoa'āina or native tenants were the common Hawaiian people who lived on the land and worked it for their subsistence and the welfare of the chiefs. Questions concerning the nature of these native tenants rights began to arise as the King, the government, and konohiki began selling parcels of land to foreigners. On December 21, 1849 the Privy Council attempted to clarify the situation by adopting four resolutions intended to protect the rights of native tenants referred to in the 1848 law (Chinen 1958:29). These resolutions (IN Kānāwai Hoʻopa'i Karaima no ko Hawai'i Pae 'Āina, 1850:123-124) authorized the Land Commission to award fee simple title to all native tenants who occupied and improved any portion of Crown, Government, or Konohiki lands. These awards were to be free of commutation except for house lots located in the districts of Honolulu, Lāhainā, and Hilo (Chinen 1958:29).

Before receiving their awards from the Land Commission, the native tenants were required to prove that they cultivated the land for a living. They were not permitted to acquire wastelands or lands which they cultivated "with the seeming intention of enlarging their lots." Once a claim was confirmed, a survey was required before the Land Commission was authorized to issue any award. The lands of the native tenants became known as "Kuleana Lands." While the commoners were required to provide proof of land use and habitation, the land claims of royalty rarely included any land use documentation. For the commoners, this "requirement of proof" produced a series of volumes of registry and testimony—the "Buke Māhele."

Today, these volumes often help researchers understand land use practices, crop production, resource harvesting, and architectural site occurrences of the time. By the time of its dissolution on March 31, 1855, the Land Commission issued only 8,421 kuleana claims (Land Commission Awards or LCA), equaling only 28,658 acres of land to the native tenants (Kame'eleihiwa 1992:295). Though

the commoners were required to provide proof of land use and habitation, royal claims rarely included any documentation. For the commoners, this "requirement of proof" produced a series of volumes of registry and testimony. Today, these volumes can help us understand various land use practices, crop production, resource harvesting, and architectural site occurrences at the time of the Māhele.

With the exception of house lots and agricultural parcels awarded to lesser chiefs and commoners, and the 'ili of Pi'opi'o—bounding a portion of the Waiākea pond and shoreline—awarded to Chiefess Victoria Kamāmalu (LCA 7713:10), the entire ahupua'a of Waiākea was awarded to the Mōʻī Kauikeaouli (Indices of Awards...1929:26). The majority of the smaller parcels awarded to native tenants were situated in the area now incorporated into Hilo Town—around the ponds and lower flat lands of Waiākea; lands that were within or neighboring the Waiākea Mill Company base of operations (Figure 2. Portion of Register Map 1561 {showing area between Waiākea Fishpond and Mill, to LCA No.s 2663 and 2402}).

While legendary and early historic references, as those cited in this study, document that many people were living in Waiākea, and that extensive agricultural fields extended inland from the area of main habitations, it is not clear as to why few upland agricultural pots were claimed by native tenants. It appears that at the time of the Māhele, no claims for land at the elevation of, or within the present study area were registered in the ahupua'a of Waiākea. This lack of registered claims probably reflects the decline of the Hawaiian population and consolidation of the community at the time. Of general interest to this study, are two LCA (No.s 2402 and 2663) located approximately one mile inland near the 100 foot elevation—situated near the general elevation of the study area parcels—that were awarded to native claimants; the claims also register land in Kukuau and Pōnahawai. Additionally, one other claim for the land of Waiākea is cited here (LCA 2274 to Kapua'akuni), because it tells us that the place name "Puuainako" (Pū'āinakō) is a traditional one in the ahupua'a of Waiākea. The claim also provides us with one of the more unique recordings of use of a portion of the land in one's kuleana; recording the presence of the original claimant's burial site. While the occurrence of burials within kuleana and homestead parcels is well known, it is rare to find details of such a claim in 1848-1850.

It is also noted here, the award to Kapua'akuni (LCA 2274) was erroneously left out of the Indices of Awards (1929), and it is possible that a careful detailed review of both Native Register, Native Testimony, and Foreign Testimony documents will show that other claims were made for land in Waiākea; such a detailed review could be the topic of further research.

The Māhele record for land Kahue, Keaniho, and Kapua'akuni provide the following documentation:

Kukuau, December 16, 1847 **LCA 2663 Kahue** [Native Register Volume 8:675]

The land measures 50 fathoms by 30 fathoms

November 7, 1848

LCA 2664 [corrected to 2663] **Kahue** [Foreign Testimony Volume 5:3]

Haoleopunui sworn , said he knew the house lot to be situated on the Ahupuaa of Kukuau 1st and bounded on the West by Kanakaholokai's ground, on the North by the Ahupuaa of Kukuau, on the East by Aiko's enclosure, on the south by a piece of waste land. There are three houses on it, all belonging to Kahue. He received the plot from Puna in the year 1840, since which time he has held it without dispute... [continued on page 80]

No. 2663. Kahue [Foreign Testimony Volume 5:80]

Kamakani sworn says, I am an old resident on Kukuau, Hilo, and know the kuleana of Kahue. It is bounded on the Hilo Paliku side by the kuleana of Keaniho, on all the other

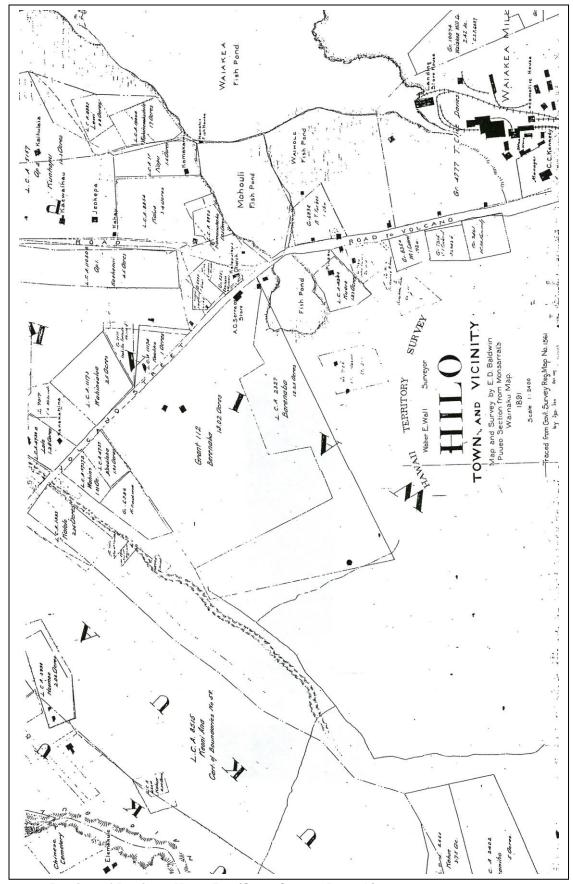


Figure 2. Portion of Register Map 1561 (State Survey Branch)

sides by the Konohiki. He received it from Kaiana in 1844, and Kaiana from Kaunuohua before Nahienaena's death (1836)...

December 18, 1847

LCA 2402 Keaniho [Native Register Volume 3:483]

Greetings to you John Ii, and all the Land Commissioners: We have heard we should petition by the end of the year, therefore we hereby petition for our house lot. I Keaniho, of Ponahawai, and Kahue, of Kukuau. Here is the diagram of our house lot. This is finished. Also, there is a hala grove at Waiakea, a portion is pahoehoe lava and a portion is a'a lava. The boundaries are unequal: 60 by 84 by 160 by 110. This is finished. This diagram will be kept until the time when we meet.

November 7, 1848

LCA 2402 Keaniho [Foreign Testimony Volume 5:4]

2402 and 2663 Keaniho and Kahue (Wednesday November 8, 1848)

Kaapa sworn, deposed that the land of Keaniho and Kahue was on the Ahupuaa of Ponahawai on the ili of Kanewahineiki, consists of a building lot and planting lot. Is bounded on the W. by kalo fields, on the North by the ground of Hewahewa and Kaapa, on the East by strip of waste land, and on the South by a piece of waste land. It is not enclosed and has 3 fields for cultivation, 1 dwelling house belongs to Keaniho. The land was given to him by Hoolulu and Kaholowaiia in the year 1835. Since which time he has always resided thereon. Kahue not decided, sent for.

Lahaina sworn, deposed that the evidence of Kaapa was true.

November 8, 1848

LCA 2402 Keaniho [Native Testimony Volume 4:407]

Kaapa sworn and deposed: I know, there in the Ahupuaa of Ponahawai in the land parcel of Kanewahineiki... Moving to the parcel in Waiakea and testimony received—

Kahue sworn and deposed; I know that there in the Ahupuaa of Waiakea are 2 cultivated fields (kīhāpai) that I gave to Keaniho, 3 cultivated fields remain mine, I gave them [two fields] to him in 1840. No one has disputed our claim.

While the above documentation of for the kuleana claims of Kahue and Keaniho, do not specify the type of crops being cultivated on their land in Waiākea, they do confirm that cultivation was occurring at the elevation. Additionally, the following information was located for the kuleana claim of Kapua'akuni:

LCA 2274 Kapuaakuni

Hoohikiia o Barenaba, a olelo mai la: Ua ike au aia ma kahi i kapaia o Puaninako ma Waiakea, Hilo, Hawaii. Mauka aina waiho wale, pela no ma Hamakua. Makai he alanui, ma Puna aina waiho wale. Ua paa ka hapa o keia aina i ka pa, elua ona hale. No Kaunuohua mai kona, he kaikuana ia no Kaluaokapela.

Hoohikiia o Kilioe, a olelo mai la: Ua ike au i keia aina e like me ko Barenaba ike i hai ae nei ia kakou.

[translation]

Barenaba sworn and testified: I have seen, there at the place called Puainako at Waiakea, Hilo, Hawaii. On the upland side is untended land, also on the Hamakua side. On the shoreward side is the alanui [literally the large trail, a road way or thoroughfare], and on the Puna side is untended land.

This land is partially enclosed with a wall, there are two houses for him. His interest was from Kaunuohua [a granddaughter of Keawemauhili], and he is the older brother of Kaluaokapela.

Kilioe sworn and testified: I know this land, it is just as the way Barenaba has described it to us.

[c. November 1848]

LCA 2274 Kapuaakuni [Foreign Testimony Volume 5:26]

Barenaba sworn, deposed: he knows the claim of Kapuaakuni to be situated on the Ahupuaa of Waiakea at a place called Puuainako; that it is an house lot bounded on the West, North and South by waste land and on the East by the road leading to the Volcano. There are two houses belonging to him, he received it from Kaunuohua in the year 1847. Puaakuni died and was buried in the enclosure, he left the lot to Kaluapela...

Other than the references to the place called "Puuainako" (Pū-'āina-kō), and the road to the Volcano, the location of land of Kapua'akuni and Kaluapela is not presently known.

Boundary Commission Testimonies—1873

Following the Māhele, a Commission of Boundaries was formed to establish the boundaries of lands for the Crown and Government. Today, the volumes of the records of the Commission of Boundaries provide us with valuable and detailed accounts of ahupua'a boundaries. Though infrequently referred to, the volumes are an important record of the sites and events associated with lands that were either on or near boundaries of various ahupua'a presented before the commission. The current study area is situated approximately 1-mile away from the boundary between Waiākea and Kukuau 1st, but because of the interesting documentation of upland land use recorded along the Waiākea-Kukuau 1st boundary, excerpts of the testimonies are included here. It may be safely assumed the activities, and the occurrences of sites described along the boundary of the two ahupua'a were spread across the land as well. The following narratives are excerpts from testimonies collected on December 16, 1873 (Volume B):

Kaikamahine K. Sworn.

I was born at Kau at the time of Niaukani [Kamehameha's return to Hawai'i from O'ahu in c. 1812]; moved to Hilo when a child and have resided here ever since; the boundaries of Kukuau [on the Waiākea side] were told me by old kamaaina... All these kamaaina are now dead. I have been a canoe builder.

Commencing at the Waiolama river which belongs to both lands [Waiākea and Kukuau 1st] the boundary runs to the head of the river at a place called Palaoa, on Kukuau 1st, thence to Pohakunui at Kipi's place the boundary between Kukuau 1st and Waiakea is in a swail (what I call kahawai) just outside of this place thence to Waipio, a water hole on Kukuau 1st. The land is very narrow there. Thence to Wainaku a pool of standing water where rushes are growing. The boundary line runs along side of Waipio, thence to Kahawai, belonging to Kukuau, thence to Kalokoiki an old planting place, mostly belonging to Waiakea. Kukuau taking only a small part of it, thence to Kukuinui, a Kahawai with kukui trees in and around it, the boundary running in the old road to Kaunuunumoa, thence to Kilohana an old resting place [the o'io'ina or trail side resting place is likely situated atop the rise in the area of the present Komohana Road], and hill on the road, to Kumunui an old cocoanut tree, thence up the road to Naiheakaalahou, where there is a well of water and a grave yard, thence to Huawai a bathing place belonging to Waiakea. From this place all the pahoehoe belongs to Waiakea, thence to Kuaiaina the junction of two roads, one from Waiakea and one from Kukuau. Pahoehoe and the trees growing on it belong to Waiakea, and the ohia on the Hilo side belongs to Kukuau 1st. Thence to Kaaipopolo where the bush begins and where they used to catch

birds, the forest all being on Kukuau 1st. Thence the boundary runs to Kanekaulukaau an old planting place in the woods, belonging to Waiakea. Palaa is the name of the adjoining planting place on Kukuau. Thence to the Hilo side of Ohuliipe, a heiau belonging to Waiakea. This heiau is on a hill and from it you can see the sea. The boundary line is some distance from this hill, it follows up a ridge that runs mauka and makai, and is the dividing line; it is where painiu [Astelia] grows. Thence from the ridge to Nehuiki where we used to get canoes eight fathoms long... [Volume B:160-161]

Kapu ^{K.} Sworn.

I know the boundaries between Waiakea and Kukuau 1st. I heard them from my parents Koi ^{K.} and Palau ^{W.} (both now dead), who were born on Waiakea...

Commencing at a pile of stones on the Puna side of the Waiolama river, thence to Hanalei fish pond on Waiakea, there is a stone wall between the fishpond and the river which is the boundary between the two lands; thence to Kumu [a spring]; on the bank of Waiolama river, thence to Kalanakamaa where the government road to the volcano runs through the land. Thence to Huia on Kukuau, there is a small kahawai there belonging to Waiakea and the level land on the Hilo side belongs to Kukuau. Thence to Upeeloa ['Ūpēloa] where lauhala trees are growing. At this place there is a kahawai between the two lands that runs into Huia kahawai [Hūʻia stream], thence to an old planting ground called Lokoiki. All the men that I have seen planting at this place belong to Kukuau, therefore I say the land belongs to Kukuau.

Thence to Kukuinui at the kahawai of Upeeloa (This last kahawai runs down and enters in to the other kahawai of Upeeloa). The gulch is the dividing line, thence to Kapuahiakaahumanu, belonging to Waiakea, thence follow the ancient road to Kaunuunumoa, up to Kilohana, an old resting place [likely situated atop the rise in the area of the present Komohana Road]. Thence till up the old road, to Kumunui, thence up the old road, to Kaunuunumoa, belonging to Waiakea. Thence along old road to a place called Naiheakealahau, belonging to Waiakea, thence along to Kahueawai still following the old road. Thence to Kaaipopolo, thence to a large ohia marked W, at the edge of the forest...

I have been told the following, from the edge of the forest the boundary runs to the Hilo side of Ohuliipe, a heiau, the woods are not very thick there, and the painiu grows on a ridge close to the boundary... [Volume B:161-163]

The Commission Boundary narratives contain additional documentation of sites and various land uses—not necessarily pertinent to this limited study—and should be read by interested individuals if further details are needed. Several of the lowland sites referenced in the above narratives are identified on Register Map 1561 (Baldwin 1891). The presence of ancient Hawaiian sites, ranging from trails and resting places, planting grounds, residences, canoe making sites, and a heiau (formal ceremonial sites) in the uplands of Waiākea speak strongly about native use of the region. While site specific information pertaining to the present study area is presently lacking, narratives like those of Reverend Henry Nālimu ("Ahele Manu"), the journals of early historic visitors, and the Boundary Commission testimonies confirm native use of lands within the study area.

Sugar Cane: Development of Plantations in Hilo

This section of the study seeks to fill in details on site specific plantation history for the Cane Lots (Lots 12, 13, 17, 18, 19, 20 & 20-A) through which a nearly one-mile section of the Pūʻāinakō Road Extension is proposed to cross. For a detailed review of the history of plantations in the Hilo vicinity, readers should refer to Kelly, Nakamura, and Barrere (1981; Kelly et al. 1981) who reported on the history of lands in the vicinity Hilo Bay. Their study remains one of the best done to date, and provides readers with valuable information on the changes that have occurred in the area since the early 1800s.

The Hilo Boarding School was established in 1836 under the supervision of the missionary, D.B. Lyman. As a part of the curriculum, the school cultivated various crops to supply the students and staff with food. Among their crops was sugar-cane, with which they sugar and molasses (Kelly et al., 1981:58 & 81) Commercial efforts in the cultivation of sugar-cane were begun by at least 1839, in the lands of Ponahawai under the direction of Governor Kuakini. Kelly et al. (1981), report that the early mill was in the charge of Chinese sugar makers (Kelly et al., 1981:49). In 1840-1841, the United States Exploring Expedition, under the command of Charles Wilkes stationed itself for a while at Waiākea. Wilkes reported that Kuakini's Mill had produced about 30 tons of sugar (Wilkes 1845-4:209 IN Kelly et al., 1981:81).

McEldowney reports that in 1853 a smallpox epidemic broke out, and subsequent out breaks of leprosy and the plague further diminished the Hawaiian population (1979:37). As a result of these occurrences McEldowney states:

...[they] not only further reduced the population, but also disrupted the routine subsistence and traditional practices of those left to tend the sick and dying. As a result, more villages, habitations, and gardens were vacated, remnant populations relocated to towns and villages with an economy based increasingly on foreign trade, and knowledge of traditional Hawaiian beliefs and practices was gradually lost or was retained only by a few (1979:37-38).

On July 15,1861, the Crown Land of Waiākea was leased by Kamehameha IV to S. Kipi for pasture in the amount of \$600 per year, payable semiannually, for a period of five years (Book 14:266) (Kelly et al., 1981:89). The 1860s, also saw the establishment of several plantations around Hilo Bay, with large tracts of land coming under the control of foreigners and children of missionary families. Of interest in the matter of early practices associated with clearing newly acquired plantation land for cultivation, J.M. Lydgate reports on early practices of clearing land for cultivation of sugar:

Breaking in new land, in those primitive days, was the bugbear of the sugar business. To clear a few acres a year of guava, puhala, amau fern, uluhi [sic], etc., burn off the refuse, and then plow the virgin soil, in even the most superficial way was a great undertaking (Lydgate IN Thrum's Hawaiian Annual for the Year 1917:77).

Lydgate's description of early field work in Pu'u'eo may be easily applied to other plantation fields of the Hilo Bay vicinity. Additionally, it is recorded that many of the fields had rocks scattered throughout them, which over the years had to be cleared as well. These stones were sometimes used for plantation-related construction projects, and others were simply set into mounds which may still be seen in abandoned fields (see the Oral History Interview Section of this study).

In the files of the State Archives, is a letter to John Dominis, Agent of Crown Lands, from Rufus A Lyman regarding the entire portion of Crown Lands at Waiākea. Lyman writes:

Waiakea in Hilo, has been bringing in with ponds about \$700. The dams to fishponds have been broken down several times by tidal waves & freshets and the fish lost. With

the privilege of cutting say 300 cords of fire wood a year for sale, included in the lease of land, ponds & fisheries, the land would be worth about \$1000. a year. There are two lands belonging to Est. [of] Kekuanaoa, and one to Govt. come into the middle of Waiakea in three different places and cut it up some what. Ponahawai has a few town lots left, and quite a tract of land a short distance below the woods and a wood land... (letter: R.A. Lyman to J.O. Dominis; March 5, 1873).

Lyman wrote to Dominis again several days later, and made the following comments and offer for the land of Waiākea:

I wish to lease the land of Waiakea in Hilo, with all the fisheries, streams, & fish ponds belonging to it, for a term of 20 years. I would like to have all the privileges belonging to the land included in the lease, and a privilege of cutting for sale, 300 cords of wood a year. I am willing to pay \$1000. a year rent payable at the end of every six months. All improvements placed on the land, to revert to the Crown at the expiration of 20 years.

I have already fenced in with stone walls about 80 acres, and propose to enclose about 80 acres more for the natives living on the land to cultivate.

I would like to have the lease commence the 1st day of April next (letter: R.A. Lyman to J.O. Dominis; March 10, 1873).

Lyman's lease was made in September 1874, for a term of 25 years (General Lease 124-A).

Overview: Waiākea Mill Company 1879-1948 and Hilo Railroad Company—Hawaii Consolidated Railway, Ltd., 1899-1946

The period of development between 1870s and 1890s saw the rapid change in Hilo town and growth of the sugar industry. In 1874, Hilo was ranked as the second largest city in the Hawaiian Islands (McEldowney 1979:39), and establishment of the Waiākea Mill Company in c. 1879, brought about intensified sugar cultivation activities in the ahupua'a of Waiākea. In 1935 the Honolulu Star bulletin ran a series of articles on plantations and milling activities in the Territory of Hawai'i. Article number 12 in this series was dedicated to "Waiakea, Island of Hawaii." The following excerpts provide readers with an overview of Waiākea Mill and Plantation history, recording the initial planting efforts of Richardson and Shipman, mill operations, managers, cultivated lands, the homestead program, Canec manufacture, and transportation of the sugar via barges over the fishpond to the wharf:

One of the most progressive sugar mills of the early [18]80s in Hawaii, Waiakea Mill Co., in later years has been closely identified with government homestead enterprise.

Richardson and Shipman were the pioneer planters on the Waiakea lands, and when it was found that cane would grow advantageously, Alexander Young and Theo. H. Davies organized the milling company, erected a mill and began sugar production on a large scale.

C.C. Kennedy was manager of the Waiakea plantation for 35 years, succeeded in 1912 by David McHattie Forbes. W.L. Williams became the manager in 1924... Waiakea plantation occupied government land, 6,000 acres of it, under lease which expired in 1918. At that time the territory undertook its Hawaiian homestead project, surveying the land in home sites ranging from 10 to 50 acres. All but about 800 acres of the tillable land of the plantation was included in the homestead tract.

Homesteads Allotted

The homesteads were allotted by Hawaiians through a system of drawing, and homesteaders entered a joint agreement and appointed trustees who obtained a milling contract with the Waiakea Milling Co. which allowed them 60 per cent of the sugar produced on their land, less milling expense.

Ensuing years were filled with litigation over the matter of contract; homesteaders became heavily involved in debt, the total obligation to the government abrogating more than a half million dollars...

The present mill is equipped with an array of modern sugar milling machinery. A tunnel in the floor blows the baggasse direct to the factory of the Hawaiian Cane Products Co. where it is made into structural insulation material... ...No irrigation is necessary, the plantation having an average annual rainfall of 145 inches at 50 feet elevation and 50 inches more on its upper fields...

The sugar output is shipped by means of barges across a fish pond and down the Wailoa river... (Honolulu Star Bulletin 1935:1).

Land Tenure: The Waiākea Mill and Homesteads

When founded in 1879, the Waiākea Mill Company acquired Rufus Lyman's General Lease 124-A, and was given an extension on the terms of the lease; the lease ran until June 1, 1918 (State Archives; F.O. & Ex. file, Agent of Public Lands to President, May 4, 1899). In the explosion of sugar across the landscape of Waiākea and greater Hilo, Waiākea Mill Company was not alone. In 1880, at least four companies were cultivating 1,300 acres of sugar in Waiākea. Ten years later, in 1890, 1,500 acres were under cultivation in Waiākea, with some 350 employees working in mill and plantation operations (Kelly et al., 1981:89 & 92). The Waiākea Mill Company developed into one of the primary milling operations to operate in the Hilo area, and remained in operation between 1879-1946. Kelly et al., note that "soon after the turn of the century...the plantation had over 6,000 acres of land planted in cane" (Kelly 1981:89).

As early as May 1899, Waiākea Mill Company proposed to the Agent of Public Lands, that it be allowed to return 86,000 acres of its Waiākea lease "in consideration of a fee simple title to 9000 acres of land" (State Archives; F.O. & Ex. file, Agent of Public Lands to President, May 4, 1899). On October 11, 1899 The application of Waiākea Mill Company to acquire in fee simple, 9000 acres of land in Waiākea was declined. Additionally, Waiākea Mill Company had applied "to retain the fisheries & fishing right of Waiakea under tenant-at-Will." No action was taken on this application (State Archives; F.O. & Ex. file, Agent of Public Lands, May 15, 1899).

In 1911, Waiākea Mill Company applied to the Board of Public Lands for the lands upon which it's "Camp Sites in Waiakea" were situated (State Archives; Ex. file, August 31, 1911). The request was submitted to a special committee. On October 16, 1911, the Board of Public Lands reported that it was opposed to sale of the Waiākea camp and stable sites to the plantation (State Archives; Ex. file, October 16, 1911).

As the terms of the General Lease with Waiākea Mill Company drew to a close, the government sought out innovative ways to employ people and get them on the land. In the Legislative Session of 1913, Act 167 was passed, Granting Waiākea Government lands for Homestead and Cane Lots Lease and Sale (Session Laws 1913:296-297). The homesteading laws required that the government lease land to homesteaders who would grow sugar cane and send it to Waiākea Mill which would be responsible for processing the sugar. By March 1914, the Commissioner of Public Lands reported to the Governor that negotiation had been completed and that Waiākea Mill Company would surrender 230 acres of land in Waiākea, to be divided and sold into house lots (State Archives; Ex. file, March, 9 1914). On November 16, 1915, Waiākea Mill Company applied to lease the ahupua'a of Waiākea at the cost of \$35,050 per year (State Archives; Ex. file). This application was denied, and by May 24, 1918 110 individual applications were on file with the Commissioner of Public

Lands to homestead (cultivate sugar) on more than 2000 acres of land (State Archives; Ex. file, May 24, 1918). The contract between the Territory of Hawai'i and Waiākea Mill Company for processing of sugar from the Homestead Lots was submitted for approval on August 15, 1918 (State Archives; Ex. (C.P.L.) files).

With the Waiākea Homestead and Cane Lots agreement in place, leases were confirmed to individual homesteaders. On June 20, 1919, the Commissioner of Public Lands submitted a list of 181 names with Cane Lot and House Lot numbers to Governor McCarthy. The total area of Waiākea Cane Lot acreage for lease and cultivation was approximately 5,300 acres, with lots ranging between 9.56 to 55.59 acres (State Archives; Ex. (C.P.L.) files). Cane Lots 12, 13, 17, 18, 19, 20, & 20-A, of particular interest to this study, were retained for cultivation by the Waiākea Mill Company. Files of the Commissioner of Public Lands between 1919-1925 document that the government was providing mortgages to the homesteaders for construction and field work expenses.

By 1920, grievances regarding failure of Waiākea Mill Company to fulfill the requirements of its contract with the Homesteaders were being raised. The special investigative commissions, the "Waiakea Homestead Commission" (WHC) was established. Matters brought before the commission by the homesteaders included:

...the cutting of cane, applying of fertilizer to the crop of 1920—the cost of which was absorbed by the Mill Company—discourtesy of the manager, failure of the Company to supply men and mules when needed, black list, etc... (WHC Chair, William Goodale to Governor Farrington, December 18, 1929).

While the Waiākea Mill Company failed to fulfill it contractual obligations to the homesteaders, the WHC also reported that substantial losses on the crops of 1920 and 1923 were due to:

Ignorance, negligence and inability of the Homesteaders to properly care for their cane to produce good yields after they took over their lands in 1919 and 1920 [these] were also contributory causes of the losses on those crops... (WHC Chair, William Goodale to Governor Farrington, December 18, 1929).

As settlement was reached regarding the above matter, and pursuant to the Organic Act, Section 72, Revised laws of Hawaii 1925, the homesteaders were given clear title to the Homestead land they paid for. Waiākea Mill Company and a majority of the Homesteaders continued in cultivation and milling operations through c. 1946 (cf. Hawai'i State Archives–letter: A. Lester Marks, Commissioner of Public Lands to Frank G. Serrao, Sub-Land Agent, Hilo; April 26, 1947).

In 1941, Jared Smith, Advertiser Staff Writer, reported on the history of the Waiākea Mill and Homestead program difficulties. His article (July 2, 1941), titled "Waiakea Mill Has Had Long, Stormy Career," presents the following insightful account of Waiākea's sugar history:

Waiakea Mill company has had a stormy history for the last 30 years. Cane was grown here before the Civil War period and in 1865 or thereabouts a 50-year lease was negotiated from the reigning Monarch at a very low rental covering the entire government land of Waiakea from its frontage on Hilo harbor to the mountains. The advantage of nominal rentals and low taxes made Waiakea a gold mine.

Annexation brought land hunger and increasing demands for the breaking up of huge plantation holdings into smaller pieces. A movement which culminated in 1912, almost succeeded in breaking up the Waiakea cane lands into homesteads. in 1916 the Governor of Hawaii issued a proclamation canceling an extension of a lease to the sugar company which it charged, had been illegally secured form the Commissioner of Public Lands. This restored title to the government...

The proposed homesteading venture smoldered during World War I, then flared after the armistice, the outcome being that the legislature of 1919 authorized the project and

provided for a public drawing, or land lottery open to all citizens. More than 5,000 applications were received and in due time the 250 or more cane farms were parceled by lot among as many holders of the lucky numbers... (Honolulu Advertiser July 2, 1941:1 & 15).

In regards to the litigation that developed out of difficulties associated with the Waiākea Homestead project, Smith reports that following a settlement between the homesteaders, government, and Waiakea Mill Company in 1922, an agreement was reached in an effort to settle the tangled dispute. The homesteaders were given a 16-year extension, defined how debts and taxes incurred during the litigation were to be paid, and stated:

The homesteaders were to grow cane until or unless they fulfilled the residential and other requirements and obtained title to their lands... (ibid.:15)

Smith noted that since 1938, when the Waiākea leases were re-negotiated, and many homesteaders acquired title to their lands, changes were occurring in land use;

Waiakea plantation extends into the suburbs of Hilo... Already, homesteaders who have paid their debts, observed residence requirements and acquired title from the government, are subdividing their properties into city lots. The lower end of the plantation is slightly, looking down on City and harbor... Owners are building streets into their subdivisions. City water is available and gas and electricity.

Other homesteaders who have acquired titles are raising poultry or pigs, and growing flowers and vegetables instead of cane. The plantation will lose more cane land as Hilo grows (ibid.).

On June 19, 1948, Advertiser staff writer Jared Smith reported "Sale of Waiakea Mill Finale of 70-Year Saga:"

It is now 70 years since the original Honolulu owners of Waiakea Mill company contracted in 1878 to built a 10-ton mill and factory to process cane grown by Hilo planters. Now, in 1948, comes the end of high hopes and high endeavor through the sale to Senator William H. Hill of all rights, title and interest in any land owned by Waiakea Mill Company (Honolulu Advertiser June 19, 1948).

Tsunami of April 1, 1946

It was in this period of declining mill and plantation operations and growing individual property rights, that the April 1, 1946 tidal waves or tsunami thundered upon the shores of Waiākea. The tsunami had a devastating impact on lands, lives, residences, and businesses situated along the coast line of Hilo Bay (and many areas around the islands). Among the businesses damaged by the waves, was the Waiākea Mill Company, the mill itself never resumed operations (pers comm., Kenneth Bell, January 4, 1996 and John Forbes February 4, 1996; and cf. T.H. Davies Annual Report for the Year 1946:3, 4-6). As noted above, in the 1930s-1940s, land in the vicinity of Hilo town was being pulled from cultivation use. This affected the cane supply for mill operations, and the Waiākea operation was already in decline at the time of the tsunami (the oral history interview with Kenneth Bell provides insight into mill activities leading up to and following the tsunami). Another key factor in the closing of the Waiākea Mill Company's cultivation projects, was that the tsunami destroyed the coastal rail system of the Hawaii Consolidated Railway, Ltd. (HCR), which had begun operations in 1916 (Kelly et al., 1981:165 & 175). The devastation was so great, that the HCR opted to close operations and liquidate its resources, rather than reopen. By December 31, 1948 Theo. H. Davies' Waiakea Mill Company completed cancellation of all it's General Leases of Cane Lots and Mill operations.

Overview: Hilo Railroad Company and Hawaii Consolidated Railway, Ltd. 1899-1946

It is reported that as early as c. 1880, Theo. H. Davies employed a railway and locomotive for transporting cane, laborers, and supplies of the Waiākea fields (Conde and Best 1973:14 & 117). These early operations led to the organization of the Hilo Railroad Company, which chartered in March 1899 and operated until to 1916, and was the forerunner of the Hawaii Consolidated Railway, Ltd. The Hilo Railroad Company serviced plantation and transportation needs between the fields and communities of Waiākea and 'Ōla'a Sugar Company and Puna Sugar Company, with railroad lines extending towards Kapoho. (Thurston IN Thrum 1914, and Kelly et al., 1981:142-143, 147).

Lorrin A. Thurston, Vice President and General Manager of the Hilo Railroad Company (also a cofounder of Olaa Sugar Company) records that by April 1901, the railroad extended 25.1 miles from Hilo to Kapoho, and by 1904, had added almost another 25 miles of railroad from Hilo to Glenwood (Thurston IN Thrum 1914:143). Also in 1904, it is reported that the company began experiencing financial difficulties. This was in part due to the "ravages of a leaf hopper on all cane" (ibid.). The Puna Plantation operations were nearly abandoned, and Olaa Sugar Company's production was cut in half. Several years of problems at the sugar plantations serviced by the rail system, also slowed down the development of Hilo, and thus diminished the need for rail services, producing a shortfall in revenues needed to pay for the rail system expansions (cf. Thurston IN Thrum 1914:144). By 1907 business was up again, but the expansions in the area of service and operation costs led to the reorganization of the Hilo Railroad Company in 1916.

Following reorganization, the Hawaii Consolidated Railway, Ltd., came into operation, and while recovering from several natural disasters and ongoing financial difficulties, the 1946 tsunami succeeded in closing down rail operations for good. The oral history interview with Mr. Kenneth Bell (in this study) provides readers with additional information regarding use of the rail system in the fields.

Pineapple and Canec—Hawaiian Cane Products

While sugar played the most significant role in the economic development of Hilo-Waiākea, and was the activity most responsible for modifications to the landscape, other business endeavors were obviously taking place. One activity, was the cultivation of pineapples. The interview with Mr. Kenneth Bell (in this study), identifies the location of one of the areas in Waiākea-uka where cultivation was still occurring in the 1920s. The location is in the vicinity of the old Waiākea Mill, Camp 6. Kelly et al. (1981) report that a cannery in Hilo was one of two such facilities on the island of Hawai'i. Pineapple grown on the island was primarily cultivated in small patches, with Japanese farmers cultivating the largest percentage of the crop. The old Hilo Pineapple Cannery, was situated near the Waiākea Mill, where the Hilo Iron Works building is now located (Kelly et al., 1981:114-115).

Another one of the businesses of the Waiākea area was the manufacture of canec, a press-board type of "lumber" material used for construction. Though manufacture of canec did not in itself directly affect large tracts of land, residue from the processing of the paneling is still present in the Wailoa-Waiākea pond area, some 35 years after ceasing its manufacture.

In the late 1920s, local business men, primarily individuals associated with cultivation of sugar cane came up with an innovative approach to using the sugar cane by-product called bagasse. Early mill operations had used the bagasse as fuel for the boilers and fertilizer, but as fuel oils became available and mills converted, use of bagasse declined, though the by-product continued to be manufactured. In 1929, Hawaiian Cellulose Ltd., of the Waiākea Mill Company applied for a patent to manufacture wallboard, which came to be called "canec." Senator William H. Hill, and Wm. Williams, manager of the Waiākea mill were among the officers of the company. The canec plant was opened in 1932, close to the site of the Waiākea Mill. The operation of Hawaiian Cane Products (HCP) experienced a series of difficulties relating to durability of the product, marketing, and labor, and in 1948, HCP was purchased by the Flintkote Company of New York. The use of highly toxic chemicals, which stabilized the canec and made it resistant to termites, allowed production of canec to flourish through the 1950s. However, in 1960, a factory fire destroyed a significant part of the

Flintkote operations, and in 1963, the facilities were sold (cf. Kelly et al. 1981:136-141). Toxic residue (e.g., sodium aluminate, alum and ethyl silicate, calcium arsenic, and arsenic acid...) from canec production is still a problem in the land and Wailoa estuary into which residue from production was dumped (ibid.:138-141).

Waiākea Mill Company: Recorded Uses of Cane Lots 13, 17, 18, 19, 20, & 20-a

This section of the study provides readers with a detailed overview of Waiākea Plantation and Mill operations, with specific reference to use of the cane lots of concern to this study (i.e. Cane Lots No.s 12, 13, 17, 18, 19, 20, & 20-A). In October 1938, H.H. Padgett, Acting Manager of the Waiākea Mill Company, wrote to L.M. Whitehouse, Commissioner of Public Lands, regarding the renewal of leases on eleven General Leases which were due to expire on various dates within two years from October 17, 1938. Among the eleven lots were the Waiākea Cane Lots No.s 12, 13, 17, 18, 19, 20, & 20-A. A letter dated October 6, 1938 provides a description of lot conditions—i.e., lot size, acreage under cultivation, classification of other lands, and the then current annual rental fee. Pertinent information from a table in that letter is included below:

Table 1. Record of Use of Cane Lots No.s 12, 13, 17, 18, 19, 20, & 20-A (October 1938)

	Present						
General	Expiration	Description	Area (A	cres)		*Classification	Annual
Lease No.	Date		Total	Cane	Other	of other lands	Rental
1716	August 6, 1940	Lot # 12	18.12	17.25	.87	(1)	\$144.00
1717	ű	Lot # 13	21.00	16.25	4.75	(1), (3)	\$ 60.00
1718	ű	Lot # 17	21.90	21.75	.15	(1)	\$160.00
1719	ű	Lot # 18	26.00	24.50	1.50	(1), (3)	\$176.00
1720	"	Lot # 19	23.80	22.00	5.80	(1), (2), (4)	\$231.00
1730	October 15, 194						
		& 20-A	38.85	28.75	10.10 (1), (2), (4)	\$269.00

^{*} Key: (1) Rock Piles; (2) Gullies; (3) Swamps & Rock outcropping; (4) Forest.

G.Ls. Nos. 1715, 1716, 1717, 1718, 1719, 1720, and 1730 cover Lots numbered 11, 12, 13, 17, 18, 19, 20 and 20-A, containing a total of 169.61 acres of which 150 acre are in cane - 6 acres to be next harvested in January and May 1939 and 144 acres to be harvested in the middle five months of 1940. These lots make up one solid block north of the proposed road fronting along the 500 block homesteads from Lot 513-A up to 520 and the distances by railroad from our factory are from 1.4 to 2.9 miles.

(a) For Lot No. 11 (G.L. No. 1715) containing a total of 19.94 acres and based on an average yield of 2.912 tons of sugar per acre per year for the last 9 years, we offer a minimum annual rental of \$4.00 per acre of the cane area or a total of \$78.00 for this lot containing 19.50 acres of cane land, at \$50.00 per ton sugar, annual average, New York 96° polarization basis. (b) For Lot No. 12 (G.L. No. 1716) containing a total of 18.12 acres and based on an average yield of 2.771 tons of sugar per acre per year for the last 9 years, we offer a minimum annual rental of \$4.00 per acre of the cane area or a total of \$69.00 for this lot containing 17.25 acres of cane land, at \$50.00 per ton sugar, annual average, New York 96° polarization basis. (c) For Lot No. 13 (G.L. No. 1717) containing a total of 21.00 acres and based on an average yield of 3.032 tons of sugar per acre per year for the last 9 years, we offer a minimum annual rental of \$4.50 per acre of the cane area or a total of \$73.00 for this lot containing 16.25 acres of cane land, at \$50.00 per ton sugar, annual average, New York 96° polarization basis. (d) For Lot No. 17 (G.L. No. 1718) containing a total of 21.90 acres and based on an average yield of 2.812 tons of sugar per acre per year for the last 9 years, we offer a minimum annual rental of \$4.00 per acre of the cane area or a total of \$87.00 for this lot containing 21.75 acres of cane land, at \$50.00 per ton sugar, annual average. New York 96° polarization basis. (e) For Lot No. 18 (G.L. No. 1719) containing a total of 26.00 acres and based on an average yield of 2.196 tons of sugar per acre per year for the last 9 years, we offer

a minimum annual rental of \$3.50 per acre of the cane area or a total of \$86.00 for this lot containing 24.50 acres of cane land, at \$50.00 per ton sugar, annual average, New York 96° polarization basis. (f) For Lot No. 19 (G.L. No. 1720) containing a total of 23.80 acres and based on an average yield of 2.115 tons of sugar per acre per year for the last 9 years, we offer a minimum annual rental of \$4.50 per acre of the cane area or a total of \$77.00 for this lot containing 22.00 acres of cane land, at \$50.00 per ton sugar, annual average, New York 96° polarization basis. (g) For Lots No. 20 and 20-A (G.L. No. 1730) containing a total of 38.85 acres and based on an average yield of 2.551 tons of sugar per acre per year for the last 9 years, we offer a minimum annual rental of \$4.00 per acre of the cane area or a total of \$115.00 for this lot containing 28.75 acres of cane land, at \$50.00 per ton sugar, annual average, New York 96° polarization basis. All of the lots covered by the General Leases listed in this paragraph have very wet and shallow soil, are expensive to cultivate and require much replanting after each harvest. It is for these reasons that the rentals offered may be lower than paid for "medium" and "good" lands rented in the past (letter: H.H. Padgett, Acting Manager, Waiakea Mill Company to. Honorable L.M. Whitehouse, Commissioner of Public Lands; October 6, 1938).

In April 1939, the Commissioner of Public Lands published the "Notice of Sale of Government Leases on the Island of Hawaii." Lots 12, 13, 17, 18, 19, 20, & 20-A of the present study are were included in this Legal Notice with a description of the land use at the time. The following descriptions are taken from records relating to those lots found in the Bureau of Conveyances under the General Lease documents for the subject lots:

Public Notice is hereby given that at 10:00 o'clock A.M., or soon thereafter on June 15, 1939, at the office of the Sub Land Agent in the County Building at No. 61 Keawe Street, Hilo City, South Hilo, Hawaii, there will be sold at public auction to the highest bidders, under the provisions of Section 73 of the Hawaiian Organic Act and of the Revised Laws of Hawaii 1935, relating to public lands, General Leases of Government lands at Waiakea, South Hilo, Hawaii, covering Waiakea Homestead Cane Lots, Waiakea Cane Lots, and Waiakea Cane Remnants as follows:

- ...7. Waiakea Cane Lot 12, containing an area of 18.12 acres, more or less—17.25 acres more or less of which are planted to sugar cane—Term of lease, 15 years from August 6, 1940; Upset rental, which is on the basis of \$4.00 per acre for the area planted to sugar cane, \$69.00 per annum, payable semi-annually in advance.
- 8. Waiakea Cane Lot 13, containing an area of 21.00 acres, more or less—16.25 acres more or less of which are planted to sugar cane—Term of lease, 15 years from August 6, 1940; Upset rental, which is on the basis of \$4.50 per acre for the area planted to sugar cane, \$73.00 per annum, payable semi-annually in advance.
- 9. Waiakea Cane Lot 17, containing an area of 21.90 acres, more or less—21.75 acres more or less of which are planted to sugar cane—Term of lease, 15 years from August 6, 1940; Upset rental, which is on the basis of \$4.00 per acre for the area planted to sugar cane, \$87.00 per annum, payable semi-annually in advance.
- 10. Waiakea Cane Lot 18, containing an area of 26.00 acres, more or less—24.50 acres more or less of which are planted to sugar cane—Term of lease, 15 years from August 6, 1940; Upset rental, which is on the basis of \$3.50 per acre for the area planted to sugar cane, \$86.00 per annum, payable semi-annually in advance.
- 11. Waiakea Cane Lot 19, containing an area of 23.80 acres, more or less—22.00 acres more or less of which are planted to sugar cane—Term of lease, 15 years from August 6,

1940; Upset rental, which is on the basis of \$3.50 per acre for the area planted to sugar cane. \$77.00 per annum, payable semi-annually in advance.

...13. Waiakea Cane Remnants 20 and 20-A, containing a total area of 38.85 acres, more or less—28.75 acres more or less of which are planted to sugar cane—Term of lease, 15 years from August 6, 1940; Upset rental, which is on the basis of \$4.00 per acre for the area planted to sugar cane, \$115.00 per annum, payable semi-annually in advance. Approximately 5 acres of cane now growing on these Remnants, which will be the 1941 crop, are reserved to be harvested by the present tenant, Waiakea Mill Company.

The above leases will be subject to the following conditions:

... D. All railroad beds and rights-of-way, or any extensions thereof, including flumes and other utilities, and all existing roads and trails within the lands to be leased, are reserved.

Tax records of the Real Property Tax Office record that the Waiākea Mill Company secured the General Leases for Lots:

Lot No. 13 (TMK:2-4-01,10), General Lease 2741. Lease canceled on or before December 31, 1948.

Lot No. 17 (TMK:2-4-01,7; including Lot No.s 17, 18, 19, 20, & 20-A), General Lease 2737; reserving there from a railroad right of way 20 ft. wide for the Lessees railroad. Lease canceled on or before December 31, 1948.

As a general point of interest (since the land identified in this paragraph is partially included within the University of Hawai'i-Hilo Campus Complex and an area of future development plans), the large parcel of land (roughly 500 acres) situated between Lots 12, 13, 17, 18, 19, 20, & 20-A and the southern boundary of Kukuau 1st Ahupua'a, was leased as "Waiakea Pasture Land," General Lease 2751 - Kazuo Miyasaki in 1939, and then to John Matson in 1942 (TMK:2-4-01-41) (Figure 3.). The records also show that for a time portions of the parcel were used for training by the Untied States Military (U.S. Army Corps Agreement RE-4761, July 10, 1942). Communications between the Army and F.G. Serrao, Sub-Land Agent, Commissioner of Public Lands indicated that in 1946, larger part of the land covered under General Lease No. 2751 to John Matson was being cleared of barbed wire; with the Army checking to see that all duds had been removed. It had also been requested that two latrine buildings and three Quonset buildings be left intact so that the could be relocated to the new prison site (letter: F.G. Serrao to A.L. Marks; January 22, 1946).

Additional documentation regarding the use of Waiākea Cane Lots 12, 13, 17, 18, 19, 20, & 20-A, and a comment on the lots included within the Homestead program, is found a letter from A. Lester Marks, Commissioner of Public Lands, to Frank G. Serrao, Sub-Land Agent, Hilo:

In the matter of L.W. Bryan's application to homestead Lots 20 and 20-A, Waiakea Cane Lots, referred to in his letter as being of the Waiakea Homesteads, these lots are covered by General Lease No. 2741 to Waiakea Mill Company, please be informed that these lots are not homesteads, and were never advertised as homesteads available for homestead entry.

They happen to be marginal cane land outside of the homestead tract proper, which lots have been covered by General Leases to permit continued occupancy for cultivation of sugar cane. The only way these lots may be had is by lease.

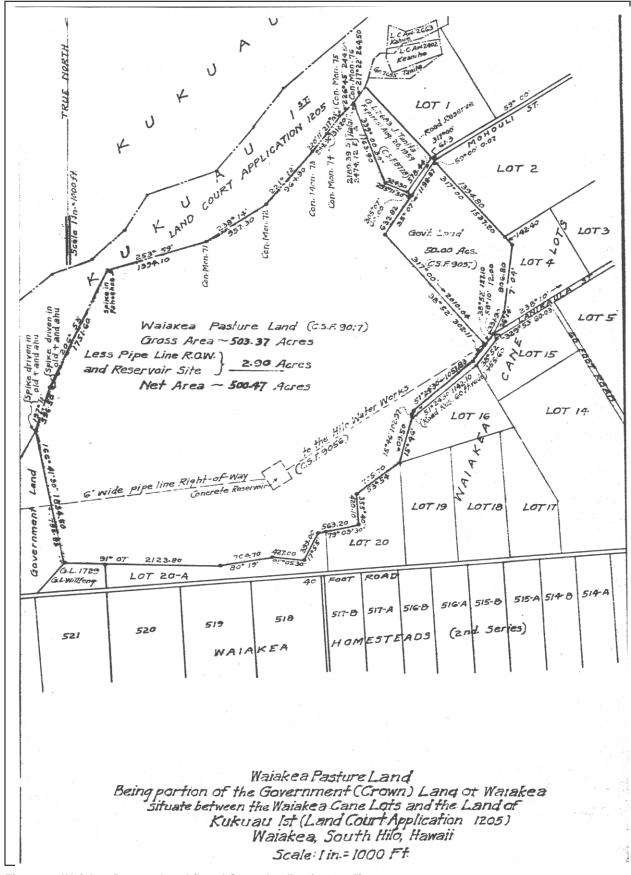


Figure 3. Waiakea Pasture Land (Land Court Application 1205); Showing Study Area and Neighboring Waiakea Cane Lots and LCA 2663 and 2402 (State Survey Branch, C.S.F. No. 9017)

General Lease No. 2741 expires on October 15, 1955 and may be transferred by Waiakea Mill Company without consent if anyone is interested (letter: A.L. Marks to F.G. Serrao; April 26, 1947).

Fairview Dairy and William Kama'u Grazing Leases

On November 12, 1949, Fairview Dairy secured at public auction a lease of Lots 11 to 20-A, of the Waiākea Cane Lots, for pasture purposes (letter: D. Furtado, Manager to F. Serrao, Comm. of Public Lands December 1, 1949). The lease (G.L. No. 3333) to Senator William "Doc" Hill was for a term of 21 years, on a total area of approximately 237.68 acres (letter: L. Marks, Comm. of Publ. Lands to W. Hill; May 25, 1949). In a communication to Frank G. Serrao, Commissioner of Public Lands, T.Y. Awana, Surveyor, Territory of Hawaii submitted the metes and bounds of Lots 11 to 20 Inclusive and 20-A, Waiakea Cane Lots, and noted that all corners had been marked and pointed out to the lessee, Fairview Dairy so that they would be able to fence the said area (letter: T.Y. Awana to F.G. Serrao; August 14, 1950). Records note that Lot No. 11 (TMK:2-4-01,5), General Lease 2734; now a portion of the Waiākea School Complex, also reserved there from a railroad right of way 20 ft. wide for the Lessees railroad. This is the railroad that extended through Lots 12, 17, 18, and 19 as well (Figure 4.). G.L. 2734 for Lot 11 was canceled on or before December 31, 1948.

Fairview Dairy enclosed the lands covered under G.L. 3333 with fences and reportedly made use of rock enclosures as well (cf. Notes from interview with Gene Olivera). In 1959, Fairview Dairy transferred its lease to William Kama'u Sr., who used the land for grazing cattle and keeping his horses pastured. Mr. Kama'u had been one of the early Homesteaders at Waiākea as well, with a house lot on Kīlauea Street (still lived on by his niece), and a cane lot (Lot 515-B), situated across the road, on the Puna side of Cane Lot No. 18 (see interviews with cousins, Josephine Kama'u-Kunewa and Mary Kama'u-Fragas).

In 1964 plans for developing the Pūʻāinakō House Lots, and a 125 foot wide Saddle Road Realignment corridor were proposed. Executive order 2338 set aside sections of the study area lots for the Pūʻāinakō House Lots, and land was set aside for the proposed Saddle Road Realignment (Executive Order 2338; October 3, 1967). During this time, The University of Hawaii-Hilo Campus was being expanded, and the Kāwili Road extension being planned (Real Property Tax Office Hawaii File Carton 165, "Withdrawal Portions of Lots 12, 13, 14 and 17; October 2, 1968).

Mrs. Junko Higa-Nowaki, Hawaiian Special Collections Librarian, at the Moʻokini Library of the University of Hawaiʻi-Hilo Campus, lived for many years on the Puna side of Waiākea, a short distance from Pūʻāinakō. Prior to the construction of the Kāwili Road extension, Junko noted in order to gain access to the UHH Campus, they used to have to drive down Pūʻāinakō to Kīlauea or Kinoʻole (from around the early 1960s). After Kāwili Street was opened, she remembers that for many years, she would often see the pueo or Hawaiian short eared owl over the forested area crossed by Kāwili; she observes that today, the pueo are no longer seen like before (pers. comm., January 3, 1996).

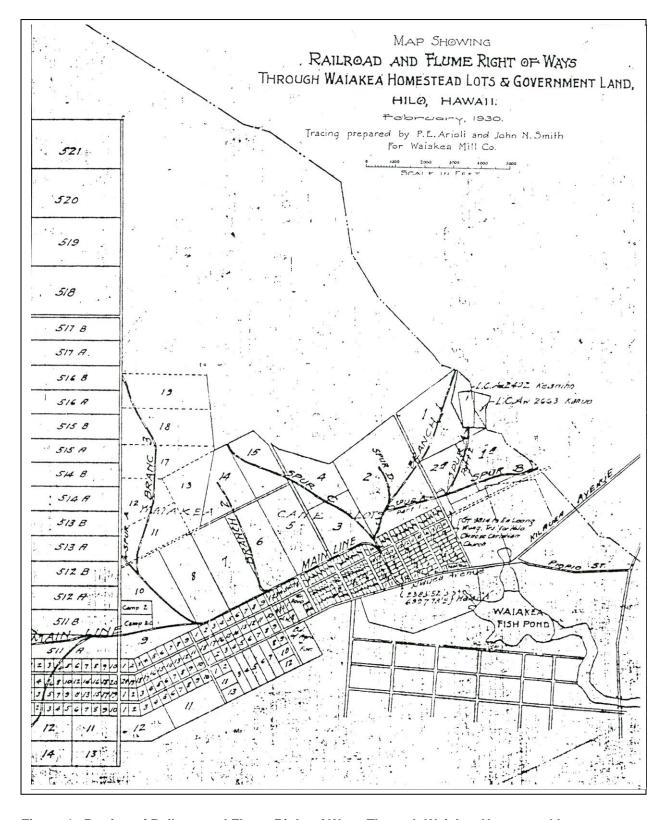


Figure 4. Portion of Railway and Flume Right of Ways Through Waiakea Homestead Lots and Government Land; P.E. Arioli and J.N. Smith, February 1930 (Honolulu, Real Property Tax Office)

Archaeological Studies of the Early 20th Century

As recorded above, and in several detailed studies of the South Hilo District (e.g. Thrum 1908, Stokes and Dye 1991 [survey of 1906-1907], Hudson Ms. 1932, McEldowney 1979, Kelly et al., 1981), the period beginning in c. 1865 heralded the beginning of the plantation era of Hilo. As sugar plantations evolved—i.e., cultivation, transportation, and milling operations, and filling labor residency needs—the cultural landscape underwent modification. With the intensification of sugar-cane cultivation, vast tracts of land extending out of Hilo Town were transformed from native field systems, plantations, and scattered dwellings and associated sites, to cleared and then planted fields. No native site was too sacred, heiau (temples) and shrines, burial sites, residences, and all manner of traditional sites were cleared to make way for plantation activities. Often, stones from the sites were incorporated into modern structures. The interview with Mr. Kenneth Bell (in this study) records that even through the c. 1920s a wide variety of artifacts found while clearing Waiākea fields were given to his father.

The earlier archaeological studies conducted within the Hilo area were of a general nature, related to either the city of- or the district of-Hilo as a whole. In 1908, T.G. Thrum reported on heiau (ceremonial sites) of the Hilo region—having conducted many site visits and extensive research in the late 1800s and turn of the century. In 1906-1907, J.F.G. Stokes conducted a survey of heiau on the island of Hawai'i, and reported on sites within the Hilo region (Stokes and Dye 1991). During periods of 1930, 1931, and 1932, A.E. Hudson conducted an archaeological and historical literature research for the eastern portion of Hawai'i Island (Hudson Ms. 1932).

During his field work in 1906-1907, Stokes only described one site in Waiākea; summarized he noted:

1. The heiau of Ohele, reportedly a luakini (temple of national worship at which human sacrifice also occurred), situated near the shore, above the old Pitman store. Destroyed (Stokes and Dye 1991:152).

Thrum (1908) reported that 'Ohele was about 60 feet square (1908:40).

Hudson's work (Ms. 1932) provides a detailed description of various sites within the Hilo area. As others before him had, he notes that "There was an important village and trading center around Hilo bay" (Hudson 1932:20). The following excerpts from Hudson's manuscript presents readers with some background of the general Waiākea setting earlier this century with references to the earlier work by Thrum (1906-1907).

There are known to have been rather dense populations in Waipio, Laupahoehoe, Hilo and Kalapana where the chief cluster of heiaus were located. House sites are usually found in close proximity to those temples located elsewhere away from the chief centers of habitation... Most of the heiaus were built close to the sea. The majority are within a hundred yards of the beach. Very few are more than 2 miles inland and these were probably of a specialized class, such as the bird catchers' heiau traditionally located in Piihonua above Hilo... (Hudson Ms. 1932:38; emphasis added).

No archaeological remains are to be found in the city of Hilo itself except a few stones which are said to have been taken from heiaus [Hudson's Site 37, the heiau — luakini of Maka-o-kū, pu'uhonua (refuge) of Moku-ola, and Kaula'i-nā-iwi, a place where chief's bones were prepared for interment (ibid.:236)]... Lyman estimates that in 1846 there were three or four thousand inhabitants in this region between Hilo and Keaau... (ibid.:226-227).

Also in Waiākea, Hudson reports that at 'Ohele, Kalani'ōpu'u "took up residence...on the eve of his war with Imakakoloa of Puna" in c. 1780 (ibid.:238). Hudson also reported that a heiau was located

inland in Waiākea, along the old Hilo-'Ōla'a trail—not far from the route of modern-day Kīlauea Avenue—he comments:

There was a heiau named Kapaieie near Honokawailani [Kawailani] in Waiakea. Bloxam who passed the site on his way from Hilo to the volcano says that its center was marked by a single coconut tree. At the time of his visit nothing remained but ruined walls choked with weeds. He was told that the priests would lie in wait for passersby and dispatch them with clubs [cf. the narratives cited above from the legend of Ka-Miki]. Thrum [1908:40] states that the site was famed in the Hilo-Puna wars but its size and class are unknown. No remains of any kind could be found and no Hawaiians with whom I talked had ever heard of it (ibid.:240).

Citing Thrum (1908), Hudson also referenced a small heiau hoʻoūlu ʻai (a temple at which ceremonies were offered to ensure successful harvests), which was named Kiniakua. The heiau was reportedly near the spring of Waikapu (Hudson 1932:241), unfortunately none of the maps or references viewed during the process of preparing this study identified the site locations; by reference, it was perhaps in Punahoa.

Information Collected as a Result of Oral History Interviews (1995-1996)

Oral history interviews provide both present and future generations with an opportunity to experience life and the relationships shared between people and their natural and cultural environments through the personal experiences of the individuals interviewed. Often, because the experiences conveyed are personal, the narratives are much richer and more animated than those that are typically found in purely academic or archival reports. Thus, through the process of conducting oral history interviews, we learn things that are often overlooked or omitted as "trivial" in other forms of studies. With the passing of time, common knowledge and personal experiences change—what was once important is no longer so—and that evaluated from perspectives other than those of the native culture is further diminished. This oral history study has been conducted in order to help document and preserve certain aspects of Waiākea's history that have not been well documented in the past.

Background Research and Informant Selection

The Waiākea oral history interviews—both formal recorded interviews and informal "talk story" interviews for which detailed hand-written notes were taken—were conducted between October 11, 1995-March 1, 1996. Additionally, archival research was conducted as a part of the preparation and researching of historical references from interviews between July 1995-January 1996. A list of potential interviewee contacts for the oral history program was compiled by members of the UHH Hoʻoikaika Club, and through personal contacts of the author. The final decision on whom to interview was formed on the basis of several qualifications, including, but not limited to:

- a. The potential interviewee's genealogical ties to lands of Waiākea (i.e., descent from families awarded land in the Māhele of 1848);
- Age—the older the informant, the more likely the individual is to have had personal communications or first-hand experiences with even older, now deceased Hawaiians;
- c. An individual's previous association with operations of the Waiākea Mill Company, Fairview Dairy, Ltd., or Kama'u Ranch—someone known to possess specific knowledge of lore or historical information pertaining to the lands, families, practices, and land use activities in Waiākea.

Informant Interviews

Four individuals participated in interviews, two interviews were recorded on audio cassette, and two provided detailed information for which hand-written notes were taken. The taped interviews were recorded on a Sony TCS-580V cassette recorder on TDK D90 cassette tapes. During the course of conducting the interviews, the author followed a basic set of questions (Appendix 1.), which helped establish the interviewees identity, relationship to the land, and how the interviewee came to be knowledgeable about the area in question. As interviews progressed, and specific sites were discussed, the author referred to a 1930 Map showing the Railway and Flume Right of Ways Through Waiakea Homestead Lots and Government Land (Figure 4). While using the map, the interviewees were able to refer to specific locations for which the author took notes.

Following completion of typing the taped or handwritten interview draft transcripts, the transcripts were given to the interviewees, who were then asked to take some time to review the transcript and make notes or comments as they found necessary. Follow-up meetings between the interviewees

and the author then took place, during which time several interviewees made minor clarifications, or added further details to particular narratives.

Data Repository and Access

In addition to the interviewees receiving copies of their tapes and full transcripts, the author will also retain full copies for future reference in his collection. The full report—with pertinent excerpts of interview transcripts—will be curated with the UHH Hoʻoikaika Club, the Office of Hawaiian Affairs, and in the Special Collections of the UHH Moʻokini Library. This study includes only pertinent excerpts from the interviews.

Informant Interviews (October 1995—March 1996)

This section of the study includes four informant interviews, identifying each interviewee, how the individual came to know about particular practices, customs, and land use, and also includes the specific narratives relaying the individual's knowledge of the area around the Waiākea Cane Lots No.s 12, 13, 17, 18, 19, 20, & 20-A; a portion of the area of the proposed Pūʻāinakō Road Extension (the Saddle Road Realignment Corridor). The taped interview excerpts are verbatim, as spoken in the words of the interviewee. The informal (non-taped) paraphrased interview notes reflect what the author heard during the discussion, and were reviewed for accuracy by the interviewees.

Interview 1. Eugene "Kini" Olivera, at Kea'au

Informal interview with Kepā Maly and Paulo Burns—October 9, 1995

Eugene "Kini" Olivera (Gene) was born in Mountain View in 1923, and is of Portuguese ancestry. When he was about 11 years old, Gene quit school and began to work for 25¢ handling mules. Since that time he has worked as a cowboy around the island—at the time of this interview, he was preparing for work at Keauhou and Kapāpala. Working with old Hawaiian paniola (cowboys), Gene used Hawaiian ranching terms, and learned about various Hawaiian sites, practices, and plants. Gene worked for years on Shipman Ranch lands, and for "Doc" Hill at Fairview Dairy, and for William Kama'u on his various ranch lands in Puna and Waiākea, including the Waiākea Cane Lots covered under General Lease 3333. Aunty Jojo Kama'u-Kunewa recommended Gene, as an interviewee for this study.

It is recommended that when Mr. Olivera's schedule permits, a formal oral history interview be conducted. His knowledge of ranching and various sites will add significantly to our understanding of this aspect of history. The following narratives have been paraphrased by the author from hand written notes taken during the discussion with Mr. Olivera. The informal interview was conducted at Mr. Olivera's home in Kurtistown.

Yes, I am familiar with this area [pointing to TMK:2-4-01] from the Waiākea Schools, up to the UH-H site and below Komohana Road. It was pasture, previously used by Fairview Dairy, then used by William Kama'u. All this area [pointing to the 1930 Railway and Flumes Right of Ways Map; Lots 12, 13, 17, 18, & 19...] had sugar, and the railroad track ran through it at one time as well. The railroad met up with the connector track by Tommy Delima's house [by Lōkahi Rd.]. The side here, across the Waiākea Stream bed was where Markam Mizuni's dairy was, but on our side, it still had cane grass in areas.

KM: Did you see stone walls or mounds in this area [pointing to map of study area lots]?

EO: Yeah I saw old walls and stone mound in this area.

KM: Do you know who made the walls and mounds?

EO: I think it got to be the old Hawaiian who made some of that.

KM: Did you ever hear anyone talk about those walls or mounds?

EO: No, I don't remember anyone ever talking about those rock walls and things. I remember, had walls up by the mango trees, and up behind these houses on Pūʻāinakō St., had a stone wall, by the old dairy fence line. The dairy used to hold cattle up there in a circular wall.

Interview 2. Mary Kawahineha'aheo Kama'u-Fragas, at Waiākea

Recorded Interview with Kepā Maly and Paulo Burns — October 13, 1995

Mary Kawahineha'aheo Kama'u-Fragas was born in Waiākea on November 9, 1923. Her father Samuel Hiwauli Kama'u, was a territorial surveyor, and a brother of William Kama'u Sr., their father was the Reverend William Kama'u; noted for his knowledge of Hawaiian lore and chants. Mrs. Fragas' mother was Mary Kawahineha'aheo Kamalani-Kama'u, a native of Kohala.

As a child growing up in Waiākea, Mrs. Fragas heard her father and mother speak about the Waiākea Cane Lots land leased by her uncle, William Kama'u Sr., for pasture. Today, Mrs. Fragas is a practitioner of lā'au lapa'au and lomilomi. The interview was



conducted at her home on Kīlauea Avenue; a part of the Waiākea Homestead land that has been in her family since c. 1918.

Mrs. Fragas responded to the announcement, requesting information regarding the study area lands, that was published in the Hawai'i Tribune-Herald (August 1995)

KM: ...Growing up, what were some of the memories, the fond recollections that you have about your childhood? Were you're tutu them, and mama them speaking Hawaiian? Were they sharing stories, or did you over hear...You know, what are some of the things that...

MF: They were always speaking in Hawaiian you know. Well at the time, I couldn't recollect what they were talking about, but as I grew a little bit older, I did understand.

KM: As a child were you encouraged to speak Hawaiian? Or did they prefer...

MF: No, they never taught us. We never had the privilege. In fact, mom and dad; even tutu Kalei, who used to take care of mama and uncle Auwae...Henry Auwae, they were both raised together. And they would only speak Hawaiian to the elder ones. And we were shunned away you know... "hele pa'ani," you know, "go play."...

KM: Do you have a sense as to why tutu mā and mama them choose not to have you speak Hawaiian?

MF: [pauses] No, I have no recollection of anything towards that account. Its just that they never taught us. I don't know why. I wish I knew... It would have been so beneficial. To me, I find that the old mother tongue is a better way of talking, of speaking Hawaiian than the University way of teaching right now, you know. Its more melodious and loving you know, than the way it is spoken now...

KM: ...Before we started the interview a little bit, you'd mentioned that you used to hear grandpa or tutu William Kama'u offer...he would rise in the morning and 'oli.

MF: Early in the morning, say about a quarter to two he would get up and go out in the living room all by himself and just 'oli. It sounds so beautiful you know. It sounds so beautiful and so meaningful, and I wish I knew the meaning. I wish I knew what he was 'oli-ing about—chanting about.

KM: So he was looking off...

MF: Yeah looking out to space, with his hands in the back. You know he's always like that you know. Just walking and talking. Just like there was somebody there, but there is nobody there...

KM: ...Now, as you were growing up, you'd mentioned that papa was a surveyor also, and you would hear him talking about different places.

MF: Uh-hum.

KM: When did you hear papa...You know, as we look at Waiākea, we have the Tax Map here, its 2-4-01, it shows Pū'āinakō coming down past...

MF: [looking at the map] Oh this is a new map.

KM: Yes, this is a fairly new one. It comes...this lot here is where the elementary school is, and then the intermediate school. You see the house that line Pūʻāinakō going up to Komohana.

MF: Uh-hum.

KM: The water tank is here, and the river. You'd mentioned, when we were talking earlier before going on the tape, that you had seen where the river was and things like that. What are some of the things you'd heard, and how did you come about hearing about this place at Waiākea?

MF: Well, daddy and a group of boys were surveying in the area, and I am assuming now, that perhaps at the time, they were surveying for the acreage of the university. As well as to put in the roads. Why else would they be there?

KM: Sure. Was there sugar in this area [pointing to the school-university and neighboring lots], do you recall at that time? Were they planting sugar, do you...?

MF: No, at the time that Uncle [William Kama'u] had his cows, that's Jojo's father. At the time that they were there, it was guava fields. I think the plantation had moved, you know how they keep moving away.

KM: Did papa tell you stories about this place, or things that he saw?

MF: No, never to us, it was always to mama. But whenever daddy had something to say to mama, when he'd come back from work, we're there. The children are all there. We listen to what daddy has to say, but the younger ones never took it to heart. This is the way I feel, because I even questioned some of them if they remembered daddy talking about the different things. And they said, "No." But I did, I remember hearing them talk about the different...

KM: What are the things that he would talk about?

MF: Well, like that particular time, he said he sat down on the rocks and he noticed that the formation was, to him, that there was an old village there [see also Appendix 2., for another account of sites in the vicinity]. And as he was doing his calculation, he said he could "feel the presence like, there must have been 'ohana there." Because he felt, he had a good feeling there, you know. He felt like he was welcome there.

KM: And so this is generally this place in Waiākea over by the school and where UH-H is and

where...

MF: Right.

KM: And where uncle William had cattle, or was that before?

MF: Actually, his cattle was more on this side closer to the Waiākea schools.

KM: Below Kāwili?

MF: Yeah.

KM: Closer to the schools?

MF: The school, in the school area.

KM: Okay, so cattle were down more this side. Now, Kāwili wasn't built at that time.

MF: No it wasn't built.

KM: But the land across a little bit...now Kāwili, do you recall? Or was papa further mauka

then when he was surveying and he sat on the rocks and he felt there was village?

MF: Uh-hum, uh-hum, yeah. Actually, its the area in the back of the field. The baseball field.

KM: Oh, you remember that place.

MF: Yeah, because somebody else mentioned that they were walking and I forgot who these

people were...And they were walking, they had wandered in the back. They wanted to know what was in the back of the field, and when they came back, they said, "Oh, its very interesting. There is mounds in the back." And to me I brought back daddy's stories. So

you know...

KM: So dad said about the place again...?

MF: Like it was a Hawaiian village.

KM: So he saw some rock walls, mounds, and things?

MF: Yeah, he sat down on a place that looked like there was some kind of wall there. And he

felt good, like he was...you know, he was welcome there. The feeling there, he said was

"like it must have been old 'ohana there."

KM: Hmm, you'd mentioned the river, did papa say anything about the river?

MF: No nothing. Just now the river is in the way of this four lane highway.

KM: That they're proposing.

MF: And I am interested, and I hope that there is somebody that could stop that, or divert that.

KM: Divert it to preserve the sites?

MF: Yeah, to preserve that. Because you cannot find too many of these places.

KM: Ah! So now that's important, you see, in all of Hilo, the vicinity of Hilo Town, there's not

much resource, Hawaiian sites like that.

MF: Uh-hum.

KM: So you feel it would be important to...?

MF: Yeah, I feel its very important to preserve you know, What little of the old that we have.

KM: Sure. You know, as a surveyor, I wonder if papa kept field books?

MF: He did, but our house burned. Our house burned, and I heard that the transits and

everything burned in the house. And my brother had volleys of bullets because he used to go hunting. That that too caused no body to get close to the house. Everybody was

down on the ground, and the bullets was going off. Even the fire department couldn't get close.

KM: Where was this house?

MF: Down at the end of Kawailani.

KM: Oh, so that's sort of the homestead farm lots.

MF: Right, I don't know if you know Bully or Alex Kama'u. That's a new home that my brother

built.

KM: Which brother...is it Sam? Is he older or younger than you?

MF: Oh, I'm older, I'm the oldest of eleven...

KM: ...When uncle William, that's aunty Jojo's father yeah? When he had...use to have the old

dairy here, before uncle had it...

MF: Right.

KM: The Fairview Dairy. When uncle had this place he had some cattle in here too?

MF: Uh-hmm, right.

KM: And the horses...You'd mentioned that above there was all sort of wild guava and what

ever.

MF: Uh-hmm. In the area where the cows and the horses were, it was wild with the guava.

KM: With the pasture scattered around?

MF: Yeah, right.

KM: You know, its interesting...here's...this is the intermediate school here [pointing to TMK:2-

4-01] right here; the high school is right in about here.

MF: Uh-hmm.

MF:

KM: This area is sort of...there's some wild bush, big mango trees and stuff, and you know it's

amazing. You know the little road that goes right behind the schools and comes in behind the high school. Even in here, there are some very interesting walls and like little enclosures and platforms and things. And then you come up here [pointing to the general area of the proposed roadway extension—study area], there's a whole series of

In the back of...what do you call that...where the university kids are at, the brown

them up along the edge of the river across over and back behind here. Papa's...

building? Where they're housed?

KM: Oh, the housing. The student housing.

MF: Behind Kāwili.

PB: Ash Housing.

MF: Yeah Ash Housing, directly in the back there, from there, there is a lot of mounds in the

back there. It must have been a big village...

KM: Hmm. [pauses] what kinds of changes have you seen in Hilo? How do you feel about the

way we are growing as a community?

MF: I wish we could go back again to the old. Though, I know better, that we couldn't. We

could never go back. But, those were the happy days. Too bad we cannot make it

happy and more promising to everybody. Uh-hmm.

KM: Hmm. Is there anything more that you might recall that papa may have said to mama

them, or something about this place at all?

MF: No.

KM: No?

MF: Just that the most important part was that...daddy claiming that he could feel like there

must have been 'ohana, his family, his family there. Because he felt so [said with emphasis] welcome there. But now, as I'm thinking, I wonder why he didn't take mama

up there to feel you know, what he felt.

KM: 'Ae.

MF: You know, or educate her mind you know, of an old village...

KM: ... Now, what I'm going to do, is I'll take the tape and I will transcribe the tape, and I'll

bring it back to you. So I will call you again, soon I hope. It takes a little time to transcribe the tape, but I'll call you, and I'm going to leave my phone number with you also. And I'll get this back so that we can look and talk story again. And you know as time goes...you know the idea is, we would jut like to record what people remember. Because, you folks as tutu, you're the only bridge we have between today and the past.

MF: And the past.

KM: And so we're doing this just to try and preserve, and keep the history, what we can, alive.

MF: Uh-hmm.

KM: So mahalo [said with emphasis]...

MF: Not only preserve, I hope there is a way that somebody could block that area, you know

from...or divert that traffic away.

KM: Uh-hmm. Out of curiosity, did you happen to hear about any of the meetings about the

road, or go to any?

MF: [shakes head no]

KM: Well see, if you feel good about this, when the tape is done, the transcript is done. What

you've just said here, is going to be important too. So that they can hear a voice from someone in the community. From an elder in the community, and what you feel about

that place, and that there may be a family connection.

MF: Uh-hmm...

Interview 3. Josephine Nāwai'ōpua Kama'u-Kunewa, at Pana'ewa

Recorded Interview with Kepā Maly — November 9, 1995

Josephine "Jojo" Nāwai'ōpua Kama'u-Kunewa was born in Waiākea on August 1st, 1919. Her father, William Kaho'owaiwai Kama'u Sr., was the son of Reverend William Kama'u and Lucy Nāwai'ōpua Kaho'owaiwai: her mother was Josephine Kaihenui (also known as Lee Loy and La'akapu), whose family was awarded land in Waiākea during the Māhele of 1848 (cf. LCA 11050-B). Aunty Jojo's father was a Territorial Representative and a surveyor, and in 1918, he was among the early families to receive land under the Waiākea Homestead Act (Cane Lot 515-B, fronted by Pū'āinakō Street, and directly across from study area Cane Lot No. 18). Around 1959, Aunty Jojo's father also acquired General Lease No. 3333

KM:



for the Cane Lots within the current study area, and extending down into the lots where the Waiākea Intermediate and Elementary schools are now located.

Though Aunty Jojo's recollections of activities on the land were limited, she was able to put the author in contact with Gene Olivera and Kenneth Bell, who were familiar with activities around the subject lands. During the interview, there was also some discussion about the Hawaiian language newspaper Ka Hōkū o Hawai'i to which her grandfather Reverend Kama'u contributed many articles; her description of preparing the paper for print is recorded her, as it is of historic value. The interview with Aunty Jojo was conducted at the author's home (she is a personal friend of the author's family).

JK: [describing her schooling at Kamehameha] ...During those days yeah, we never knew anything about Hawaiian history nothing. We were not taught Hawaiian history...

Yeah. Aunty, let's go back a little bit. You know, we were talking earlier about how you went to Kamehameha and things... That was fun, and we're going to be talking about Waiākea and that your dad had land, but let's go back and find out who you are...

...You know, when we were talking before, I'd seen that your grandfather was an important writer. He chant...even though he was the minister of a Hawaiian church, he chanted, knew many histories, he wrote in the Hawaiian newspapers and things. Did you live at all with your grandfather? Did you hear him...how well did you know him?

JK: No, the best I can remember about grandpa was when I was going to Kamehameha School, I would go out there on Saturdays. We were only allowed \$1.00 a week you know, every time we came out, but I knew that every time I went to visit my grandfather, he would give me \$2.00 [chuckles].

KM: Was grandpa at Kawaiaha'o at that time?

JK: Yeah, he was the minister at Kawaiaha'o and minister at Pearl City church, and minister at Waialua I think, or Hale'iwa... the Lili'uokalani Church, he was the minister there too. That's way before Saffery's time you know. Because Saffery and them were members of Kauamakapili Church when I was going to Kamehameha. I knew the Saffery kids, Phyllis and Sam Saffery.

KM: So you don't remember off hand hearing your grandfather chant or...?

JK: No, no never, never. But his last years you know, my mother took care of him up here.

KM: Hmm. Grandpa died in the late 30s? Do you remember?

JK: Wait, all I remember is that grandpa died in Hilo.

KM: Uh-hmm I remember reading, seeing it in the Hawaiian newspapers [IN Ka Hōkū o Hawaii: January 11, 1939; Reverend William Kamaiu was born January 15, 1852. January 12, 1944; Wm. Kamaiu Sr. died at the age 93 years old.]

JK: He died in Hilo, those days, they used to have...that Hawaiian newspaper used to be made underneath the Hāili Parsonage.

KM: Yeah at Hāili Church.

JK: At Hāili Church, at the parsonage. Reverend Desha lived upstairs, and down stairs...it was run by Solomon Anakalea.

KM: Solomon Anakalea, but that's not the one that you went to school with?

JK: Its his son that was my class mate, Joe Anakalea. These were children from his first marriage. When he was head of that Hōkū o Hawai'i yeah.

KM: That's right, Ka Hōkū o Hawai'i.

JK: When he was the head of that, he was married to Meaaloha Brown, that was his wife. And Meaaloha, that was Meaaloha's second marriage too because her oldest son was Auwo Akī. And then she had these other kids, Hōkū, and Ruby, and then from Solomon.

KM: You said that Ka Hōkū o Hawai'i was printed in the parsonage...below the parsonage of the church.

JK: Below Reverend Desha's house, the parsonage yeah. That where they were...

KM: Did you ever see them?

JK: Yeah, yeah.

KM: Tell me a little bit about that.

JK: You know, they used to just...each letter was separate you know.

KM: Oh, so they had to set each letter...

JK: Yeah, they had to set each letter, you know in these little things like that [gesturing a flat board or surface], yeah.

KM: For printing. And then they would set each letter and print the page?

JK: Yeah, yeah, yeah. That was tedious work you know. Each letter was separate.

KM: You'd shared with me that you had a friend Duppie Reichert.

JK: Yeah, Duppie was adopted by...well I don't know if adopted those days, but hānai you know, by Reverend Desha and his wife. Well, this Reverend Desha's wife was Hawaiian so she wasn't the mother of the Desha children you know; Steven and Eliza.

[Julia Keonaona was Rev. Desha's fourth wife, and the grandmother of Duppie Reichert.]

KM: But the young Steven was part Hawaiian yeah, half Hawaiian?

JK: Oh yeah, yeah. He and Mrs. Harry Brown, Eliza were sister and brother. I don't know if they were the only...Oh, no, no, there was that other one, Judge Desha. And they were cousins to Helen Beamer them, you know.

KM: Oh interesting yeah?

JK: Yeah [with emphasis].

KM: So you remember, we were talking about the Hawaiian newspaper and that grandpa

passed away; you were already graduated from school yeah...

JK: Yeah, yeah.

KM: [bringing the conversation back to Aunty Jojo's family tie to the lands of Waiākea

JK: Oh, my mother and father had a home down Hanalei Lane [Kaihenui's house lot was situated on the eastern side of Hanalei fishpond], but when I was born...I think I was one year old when we moved up here to Kīlauea Avenue...

KM: ...2040 Kīlauea or something is where you were living as a child.

JK: Yeah, and grew up and went to Waiākea-waena school, and I went to school with all the AhHins and Kūali'is, and Kaulukukuis you know...

KM: How was the community back when you were a child? Were there lots of houses on Kīlauea, or they kind of scattered around?

JK: Those lots were all one acre lots, now they got four houses on one lot you know.

KM: Was there sugar growing around the area where you were, or where was the sugar?

JK: Well, there was all lumps like there had been sugar growing over there, and I think those first homesteaders like my parents were, were issued one acre house lots, and maybe 50 acres cane land up mauka, you know.

KM: Yes. So your dad had one of those lots.

JK: Yeah [No. 515-B].

KM: So that's around the 1920s then, actually.

JK: Yeah, yeah, 1920s. Because it was...I was one year old when they moved up to Kīlauea Avenue see. And I was born in 1919.

KM: Do you remember where papa's sugar lot was?

JK: [pauses thinking]

KM: They had the house lot, one acre.

JK: Yeah.

KM: And then mauka had the sugar some where.

JK: Yeah.

KM: You don't remember...?

JK: Yeah, I do, because I remember selling that lot.

KM: Oh, let me show you a map [opens map], this is an old map that I got out of the State Tax Office. Its 1930, its the Railroad and Flume Right of Ways through Waiākea Homestead. Now...Okay we're looking at this map, let me just figure out where we are real quickly. This is what's now Pū'āinakō. The school is right here, Waiākea Intermediate and

Elementary school is right here.

JK: Uh-hmm.

KM: This is Kinoʻole, Here's Kīlauea in 1930.

JK: It was all of 40-something acres.

KM: So papa was actually able to buy that lot outright?

JK: Yeah.

KM: And you sold it?

JK: Yeah, well this is what happened. Waiākea Mill used to work all those lots up there, the cane land. And when Waiākea Mill closed... From the Bells, you can find out when they closed, I forget. Mrs. Bell was a Hennesy. But, Kenneth Bell is still living and he lived down Waiākea Mill. Kenneth Bell you can... Makani Circle I think, that's where he lives. Kenneth Bell.

KM: So Kenneth Bell, and he was married to a Hennesy?

JK: No, his mother was a Hennesy.

KM: Okay, on Makani Circle. So he you think...

JK: He knows when Waiākea Mill closed because his father worked the mill see...

KM: Oh okay, good. Okay, so there was particularly the house lots; and you're right, you see the smaller lots marked on the map here, this is where the houses were here.

JK: That's all one acre lots. They were all one acre lots and up here [pointing to the larger cane lots]... You know, a lot of guys were blaming my father and them for all these leases they had with the plantation and all that kind.

KM: So there was some pilikia yeah?

JK: Oh yeah [with emphasis].

KM: The plantation, I think there was a law suit...

JK: Yeah, yeah, yeah.

KM: And that...cause the plantation wasn't...

JK: I forget what happened. And then they turned the lots back to the lot owners when they [the plantation] were pau see. And that's how we were able to sell that...my father's land to that Julia Lewis yeah. Originally, was from Kīlauea Avenue, she was, but she was married and living on Kaua'i.

KM: When did dad...now, if we look back at this map, and its not real good. There were the little camps down here [Plantation Camps 2 and 3], here's the Waiākea Elementary and Intermediate School area, U.H. is over here, and this becomes Kāwili Street now. When did dad...do you remember when dad got this land? And what was he doing with this land up here?

JK: [thinking]

KM: Remember Fairview Dairy?

JK: What?

KM: That dad had horses and stuff up here right?

JK: Yeah, yeah, by Waiākea Intermediate. And he got that lease after Doc Hill was all pau see. So I think that's all that pīlau politics you know. Doc Hill had it, and when Doc Hill headed Foremost Dairy... And they...cause David Furtado [stands up to rinse hands—tape off].

KM: So when did dad get this land after Doc Hill, and what was he doing with this land? Do you remember?

JK: Yeah, yeah, well he had his horses in there... Too bad my cousin Walter passed away, see. That's Mrs. Fragas brother. And he is the one that used to take care all the cattle and all that.

KM: So dad had cattle up there too?

JK: Well he had cattle and he had horses. He had every kind of horse I'm telling you. From Arabian to donkey and mule and shetland and everything.

KM: Hmm. Did you used to come up here? And how old, or how long ago did you used to come and ride horse or something, up by the Waiākea Intermediate School? And did you go mauka?

JK: Wait, wait, wait. I had...I was married already you know [married in 1939].

KM: Okay, 40s then. This was to Lovell?

JK: And I had those... the Lovell kids used to go and ride horse and all that kind up in here you know. I don't know what year.

KM: Okay, so dad was there at least in the 40s, because if your kids, the Lovell kids were going up there...

JK: Yeah, yeah. That's it, he was in there... Let's see, I'm trying to think, Sugi's gone... Hey, hey, you know maybe this Japanese guy would know. I think maybe he has Alzheimer's, Kiku [start side B] Kohara.

KM: Kiku Kohara used to work for Doc Hill?

JK: Used to work for Doc Hill and Hilo Motors see. He would be the one I think that would know, because Sugi's gone, Tsugihara. You know, they were the old faithfuls for Doc Hill. All of them gone, David Furtado [former manager of Fairview Dairy]...

KM: You know, you gave me Gene Olivera's name ah?

JK: Yeah, yeah.

KM: I had a nice meeting with him [October 11, 1995].

JK: Oh.

KM: You know he's almost your age, a couple of years younger than you...

JK: Well he used to go.

KM: He's 73 I think right now, and you know what he's doing right now? He's working out Ka'ū, ranching, he's still branding cattle and stuff.

JK: Really [chuckles].

KM: Yeah, I just spoke with him this morning, after you came, so I called him just to touch bases.

JK: Yeah, yeah.

KM: So I still gotta get him to come out to Hilo, around this side.

JK: Yeah, he used to go set the animals up you know, saddle the horse so I could go ride the horse. But Luella and them, they sure learned plenty these kids. After me I think, and after all these guys were all gone, had plenty guys who used to work for my father besides Gene, but the others are all gone. So you did talk with ah...

KM: Yeah, we had a nice little talk, but we're not pau though. He's gonna come down, we just had a short meeting with him. So we're going to try and set it up. He said he would like to talk. He's an interesting man, and because he's a paniola, he's been all around you know.

JK: Yeah, he must know a lot.

KM: Do you... and this is what's really important about this...and I'll pull out one more map...

JK: Doc Hill eh.

KM: Well I'm going to pull out one more map, its the TMK, the tax map for that area because its a little clearer [opens up map gets bearings]. Okay, so this is TMK:2-4-01. Here's the

intermediate school and elementary school here, the high school is here.

JK: Uh-hmm.

KM: Here's Kāwili now. But didn't have Kāwili when you were here?

JK: Yeah.

KM: No more street yeah?

JK: Yeah, yeah, and this goes up and 'Iwalani right here.

KM: That's right, 'Iwalani right there.

JK: Uh-hmm.

KM: Here's the houses, here's Komohana, okay.

JK: Yeah.

KM: When you rode horse, did you come up in this area above?

JK: Never.

KM: You never went above?

JK: Never went above.

KM: Okay, you don't think you even went up towards Komohana or anything?

JK: No.

KM: You rode where, just in the pasture?

JK: Yeah, in this area yeah.

KM: Where the school is now?

JK: Yeah, yeah.

KM: Okay. Did you ever hear dad, or even like uncle Sam was a surveyor also like your dad...

Did you ever hear them talk, did they, or do you remember were there old walls or

anything that they spoke of up there?

JK: No.

KM: Not that you remember.

JK: No. I'm trying to think; you know I'll talk to my cousin Hiwauli [Sam Kama'u Jr.] and see if he would know, because he worked for the State, State Highway Department yeah. See,

my brother that worked with him... You see, that's all that pīlau politics. Blue Ka'au'a was a good friend of my father's. So Blue Ka'au'a's relatives, my dad hired for County, and Blue Ka'au'a hired my brother and my cousin to work for the State Highway. You

see, you see, that's how pīlau politics.

But I'll go talk to Hiwauli... But maybe if I talk to him, I'll see if he can meet me one day, and then we'll come over and talk to you okay. I'm just going to ask him about this one

area and then maybe from him you can ask.

KM: Yeah, that would be good. You see, what we're trying to find out; so I'll tell you, you see,

this area here along side the houses on Pū'āinakō, that's goes up to here [pointing to

Komohana]?

JK: Yeah.

KM: Even behind here, in this area here, you know by the high school?

JK: Yeah.

KM: There's lots of walls, lots of stone mounds and stuff, and up here, same thing you know.

There's walled off areas, there's mounds, even outright platforms.

JK: Really?

KM: Were they planting sugar up here, was it old Hawaiian? Now your cousin, Aunty Mary

said that she remembers clearly...and because she was home because of the polio as a child, she remembers papa saying, her father, your uncle; saying that his sense was that "this was a place where the old people were." But, we're trying to see if anyone has a

clearer recollection.

JK: Yeah, yeah.

KM: We know that sugar was planted up here also [pointing to the study area cane lots].

JK: Evidently, this whole area was all sugar at one time you know. Because I remember

playing in our yard over there, all these kind mountains like, it wasn't just flat.

KM: Was it mounds of rock in piles also, or was it dirt?

JK: No, no, no, just all dirt.

KM: Mounded up clumps of stuff.

JK: Yeah. Not flat like how it is now. That's a long time ago.

KM: It was yeah...

KM: ...When you were a child, was there still any train running around your house area?

JK: No, no. No train running around or house area, but there was a train running from up

Waiākea-uka side, coming down...

KM: Sugar?

JK: Yeah.

KM: I'm looking back at the old 1930 map...sorry small yeah... This is Pū'āinakō, what's now

Pūʻāinakō, so here's Kīlauea; you know where your cousin Mary lives, was your house

close to hers?

JK: Yeah, yeah, yeah. Wait, is this Kawailani?

KM: That should be Kawailani.

JK: All right, where is Waiākea-waena School? She is about three doors away from Waiākea-

waena School.

KM: That's correct, the schools not shown on here.

JK: You see, where she is staying, that is the old Harry Nā'ope home, and my father bought

that place for me...

KM: When you were growing up, were you encouraged to speak Hawaiian? I know that your

dad was fluent.

JK: He spoke fluent Hawaiian. well my mother told me that she had learned to speak

Hawaiian from reading the Bible all the time, and they spoke Hawaiian when they didn't want us to understand them. That's all I know, cause I never questioned anything; why we were not learning Hawaiian history or anything. Every time I think of it now, if I knew

then what I know now, oh, somebody would have had it. especially Ms. Shaeffer.

KM: Oh, the way they forbid you folks [from speaking Hawaiian at Kamehameha]...

JK: Yeah, yeah...

KM: So they really; when you were growing up you know, did you hear any Hawaiian stories

at all or...

JK: No, no, nothing...

JK: I think that's the best one for me to speak to, Hiwauli. Mrs. Fragas' brother, because if I

know... You know, I can call Kenneth Bell up and ask him if he knows anything, because he could have been riding the train. I'll go call him, and if he says he's knows anything

about the trains running and all that...

KM: Now what we're really curious about, and maybe he can explain. What are all these rock

mounds that are up here?

JK: Yeah, yeah.

KM: See its...now if it was done when people were clearing land to plant sugar, you would

expect that they would just throw the rock...

JK: Yeah.

KM: ...pile. Some of this rocks, its flat walls...

JK: Really.

KM: ...flat platforms, flat walls, straight walls in places, how come?

JK: Yeah, yeah, yeah.

KM: What were they doing, kind of thing, and that's what we're trying to find out.

JK: Yeah, yeah.

KM: Because if it is a part of your Hawaiian history and past, there's not much left in Hilo,

most of its all jam up.

JK: Yeah, yeah, that's right.

KM: So we're trying to see, can we care for, let's learn about it if we can. So maybe you talk

to Kenneth.

JK: Yeah, I'll go find out from Kenneth.

KM: And you ask your cousin Hiwauli if...

JK: He knows anything. And I'll get back to you.

KM: You call me. So I want to thank you so much for taking the time you know.

JK: Oh, no problem, any time you got any questions or anything you think I might know, you

call me...

Interview 4. Kenneth Bell, at Waiākea

Informal Interviews with Kepā Maly December 4, 1995, January 4, and March 1, 1996

Mr. Kenneth K. Bell was born on August 6, 1915, in Waiākea, Hilo, and is of Hawaiian and Caucasian ancestry, his mother was Ellen K. Hennesy-Bell. Mr. Bell's father. Bell William John was the superintendent of the Railroad, and Carpentry and Blacksmith Shops of the Waiākea Mill Company. When Mr. Bell was born, his family lived in a house situated on the lot where the Kīlauea Avenue Seven-Eleven Store is presently located. In c. 1926, plantation manager, William Williams,

built a new manager's house, now the location of the Kīlauea Ward of the Mormon Church, and the Bells moved



Mr. Kenneth Bell in front of a section of the Railroad Berm in his yard on Makani Circle (March 1, 1996)

into the old manager's house. This home, previously the residence of David McHattie Forbes, was situated in the area of the present-day Hawai'i Motors showroom, what is now the corner of Kīlauea Avenue-Kekūanaō'a Street.

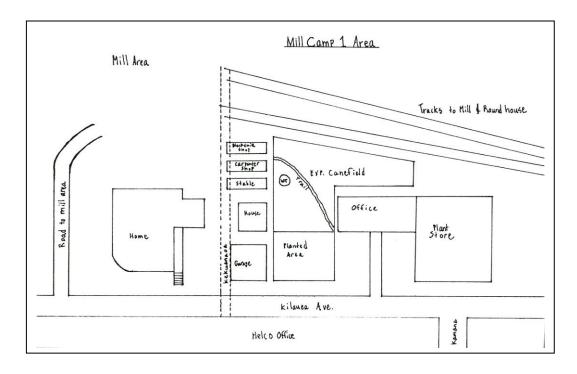


Figure 5. Rough Sketch Map Plantation Store, Office, Old Manager's House and Vicinity (Drawn from a Map prepared by Kenneth Bell)

On a site visit (March 1, 1996), Mr. Bell pointed out the location of the old plantation store, situated basically in the middle of the present-day Hilo Shopping Center parking lot (in line with Kamanā Street). Standing on Kīlauea (back to Kamanā Street), facing makai towards the Plantation Store, the Waiākea Plantation Office was situated on the left side, and extended towards the present-day First Hawaiian Bank. On the mauka and town-side corner of Kīlauea Avenue-Kamanā Street was the old Yanaguchi Shell gas station, on the Puna-side corner, was the Morgado's property. The present-day Helco Office on Kīlauea Avenue was formerly the Napier's lot, their house was relocated to the Puna-side of the lot, and is still standing at the time of this writing. The elder Mr. Napier was the Waiākea Mill blacksmith.

While describing the area between the plantation office and the Bell's home, Mr. Bell noted that on the side of the plantation office, there was an open area planted in flowers. Next to the garden—now part of the First Hawaiian Bank and towards Kekūanaōʻa Street—was an experimental cane field of the Waiākea Plantation. An old trail running down from the vicinity of the Plantation Office and cut through the experimental cane field. The trail then continued down to the old mill stables, situated in the vicinity of the Mill (generally the property makai of the Waiākea Villas Annex). Mr. Bell remembers that the luna (supervisors), rode horse back to and from the fields and stable on this trail; and he would often wait to ride the horses back to the stables. The old manager's house in which Mr. Bell grew up was a large house, situated on natural rise (now gone). The detached garage for the house would now be within First Hawaiian Bank. On the town side of the Bell's home (from about the middle of the existing car lot) were some other supervisor's homes, and then in the area fronting Chiefess Kapi'olani Elementary School, makai of Kīlauea Avenue (Cafe 100 area), the Serrao family had some pasture land. Remnants of the old pasture boundary wall may still be seen running towards the shore, and in front of the present State Judiciary Annex, may still be seen portions of the plantation wall that fronted Kīlauea Avenue.

The Waiākea Mill was located behind the present-day Hawai'i Motors shops. Driving on the gravel road, passing the present-day Pu'ueo Poi Factory, one may still see one of the two old bag-sugar warehouses; the sugar was transported from the mill to the warehouses on a conveyor belt system. On the water's edge, just behind the bag sugar warehouse, was the old tug fueling shed, the cement boat slip is still visible on the shore. Just behind the bag-sugar warehouses, the scows were loaded with the bags to transport them to the harbor for shipping. Also, running from the mill, was a bagasse refuse chute that transported the bagasse to the canec factory, which was situated at the makai side of the property of the present-day Waiākea Villas. As a child, Mr. Bell also used to ride the scows from the bag-sugar warehouses—situated on the Waiākea-Wailoa shore side, below the Mill (just makai of the Hawai'i Motors shops, towards Pu'ueo Poi Factory) to the Bulk Sugar Warehouse at the Hilo Harbor. The bagged sugar was transported on scows led by a tug, through a series of lochs, across the Waiākea-Wailoa ponds to the harbor where the sugar was loaded into the ships. Mr. Bell also remembers that during his childhood, Chinese were working portions of the Waiākea fishponds, raising mullet and growing watercress.

During the December 4, 1995 interview, Mr. Bell also discussed operations of the Waiākea Railroad System, he used to ride throughout the Waiākea fields on the trains with his father and friends. The tracks ran down to the mill in the vicinity of the present-day Lanihuli Street, through the Hawai'i Motors auto lot. During the interview, the "Railroad and Flume Right of Ways Through Waiakea Homestead Lots & Government Land" (1930) map, prepared by P.E. Arioli and John N. Smith was used to locate specific cane lots and sites that were being discussed. Mr. Bell also noted that he knew Peter Arioli and Johnny Smith (Mr. Smith had died not too long ago), cartographers of the 1930 map. Mr. Bell has clear recollections about various land use activities throughout the Waiākea Homestead and Cane Lots. Mr. Bell observed that the tsunami of April 1, 1946 destroyed the coastal portions of the Waiākea sugar tug, scow, and loch operations. (Railway and Plantation records also report that the makai rail system was destroyed as well.) Already experiencing land and labor problems, the ailing Waiākea Mill and Plantation operations were closed (the elder Mr. Bell had already retired in c. 1940). Mr. Kenneth Bell himself, worked for HT&T (a branch of C. Brewer), and when he retired in 1980, he was Superintendent of the Bulk Sugar Plant.

The following interview narratives are based on the hand-written notes collected during the interviews, and are paraphrased from discussions on December 4, 1995, January 4, 1996, and a site visit on March 1, 1996. Mr. Bell reviewed the paraphrased narratives and made necessary corrections. On June 14, 1996, Mr. Bell gave his personal release of the interview records (including the introductory texts above and the transcript narratives below), and that information is contained within the following transcript.

[Looking at the Arioli and Smith Map of 1930]

sugar in that area.

KM:

KB: The darker railroad track lines on the map shows you the "Main Line" which ran out of the mill, it was the line with the heaviest use. The Main Line intersection is just above Kino'ole Street by Lanikāula Street, and is still visible in sections. It comes out below the ILWU Hall [and Hale Hōaloha] on Lanikāula. From the main track line, there were other "Branch" and "Spur" lines. These were the feeders to the Main Line. Additionally, portable tracks were used to extend the lines out from the Branch and Spur lines into the fields to help get cut sugar cane to the Main Line for transportation to the Waiākea Mill. The large open space here on the map [pointing to the location] above rail branches 1 and 2, and track spurs C and D, was pasture and further up, it was forest. There was no

Where ever you see the railroad tracks on the map, there was sugar cane planted. The tracks crossed through cultivated lands and were temporarily lengthened in some spots by the portable tracks. The rail extended into fields from out by St. Joseph's, the area of the University (Branches 2 and 3) and past Camp 2, and through all of these mauka areas as indicated on the map. Camp 2 is right on Pū'āinakō, just above Kino'ole, where the big mango trees are, and there's a dip on the road. Pū'āinakō was still a dirt road when I was a kid. The old rail road bed was right in the area of the dip that runs along Lōkahi Road. The railroad track that continued towards the mill came out by the present-day ILWU Hall. There are still old plantation camp houses standing in the Camp 2 area (Lōkahi and Pāmala Roads). Across from Camp 2 towards Puna, the Akamine's had a piggery which remained in use until not too long ago. Camp 3 is situated where the Kino'ole Sure Save is located, and just behind that area was one of the big stables where mules, horses, and things were kept for the plantation.

Where the main railroad line cuts up to Camp 4, is basically 'Āinaola today. On 'Āinaola, just past Haihai Street, almost across from 'Āinalako Street, you can still see the remains of the old water station, that was used to supply the locomotive boilers. Following the main line on up, you get to Camp 6, basically between Alaloa Street and the old Camp 6 Gyms, situated near the corner of Kupulau and 'Āinaola. There was another big stable operation here as well. Across from Camp 6 on the Puna-side fields, accessed now by Ala'oli Road, they used to have pineapple planted too. Above here, the railroad track and fields continued all the way up to the flumes and above the area marked as Camp 10. On the Puna-side, the main line stopped at the end of Flume No. 1.

My house here [on Makani Circle], is situated on the railroad Branch 7, it runs right through the front house, and I have kept a part of the stone railroad berm in-tact in the back of my yard. When we moved up here, there was also a nice rock mound that had been built when they were clearing the fields for planting. The mound was taller than me, and nicely finished. Mounds, walls, and built up areas were all throughout these fields, in fact, the golf course area [Hilo Municipal Golf Course] was covered with them at one time. And if you go up above the Camp 6 area, you can still see all these rock mounds and stuff along side the road in the brush. These rock clearing piles were all throughout these fields, and a lot of them were beautiful pieces of work.

What do you know about these rock mounds, walls, and other stone work? Are they from ancient Hawaiian land use, or from plantation work.

KB: I don't think that much survived from old Hawaiian times, when they cleared areas for planting almost nothing was left behind. You know, my father had a collection of Hawaiian adze stones from more than a foot long, to the size of your small finger. He had 'ulu maika, kukui lamps, olonā scrapers, and other things that came from the fields that were being cleared even when I was a kid. When the Japanese and Filipino workers cleared the fields, they worked hard, and all the usable land was planted in sugar.

KM: Do you know where some of the artifacts came from?

KB: I don't know the specific fields, but they were the Waiākea fields.

Now even when I was a child and I would go with my father out into the fields, I would see the workers clearing the fields. You know, they worked hard. The workers had wooden sleds pulled by mules. They would go through the area being cleared and load stones on the sleds. The mules would then haul the sleds to selected mounding areas, usually some place where sugar couldn't be planted, like a natural rock outcrop or waste area. Then they would make these mounds and platforms. Like I said, these mounds and things were built up everywhere in the fields, and you can still see them in old fields and pasture areas. I also remember that in some areas where the train track was placed, there were walls that were built. Up in the cane lots, these walls helped to keep people and cows off of the tracks.

KM: Do you have an idea of about when these mounds were being built? They were doing it when you were a child?

KB: Well, a lot of work was probably started right when they began the plantation operations, but they were still doing the work manually when I was a kid. They didn't have all the bull-dozers and things like they used later. They did have some old steam cranes that we called the "donkey engines," but a lot of the harvesting was even done with the mules and sleds that were used to clear the rocks. The mules would pull the loaded sleds to the railroad spurs and main tracks for transporting to the mill.

KM: You know, up in this area near UH-H—fields No. 11, 12, 13, 17, 18, 19...— there are also some very interesting rock platforms, they have ramps going up to the flat surface area. How would these have been used for the sugar field operations?

KB: I remember that the luna (field managers) used to ride horses all through the fields, and in some places, they would ride up the ramps on these platforms to survey the fields. From on top of the platforms sitting on their horses, they could see all over fields. There were no trees in the way, and everything was clear.

KM: You actually saw them do this?

KB: Oh yes, a group of us kids would some times go into the fields, and the luna would see us and chase us out.

KM: So, you remember this area between UH-H and Pūʻāinakō?

KB: Yes.

KM: The fields had sugar?

KB: Yes. Like I said, where ever the tracks were laid, they were set in places that the plantation could use.

KM: Do remember William Kama'u? He had leased the old Fairview Dairy, after Doc Hill gave up the lease.

KB: Yeah, he had the lower area around the schools. After the sugar went out, he may have had cattle in some areas up where you're talking about here [pointing to the study area]. You know, some other people have called me about this place here. They asked me about burials, graves, and old Hawaiian sites, but I told them "no more." I never heard

about it in my time. Some people draw conclusions about the place before they get all the information.

Now down where we had our beach house, there used to be a heiau. It was the old type, an enclosure, and inside the walls, you could see bones.

KM: Where was this?

KB: Down towards Keaukaha. You know where the Gaspro is?

KM: Yes.

KB:

KB:

Well down there, and along Oceanview Road, fronting Baker's Beach. We had a house there, the second one from the end of the road. My mother was very respectful of that place. She always had use take care of the heiau, and she planted flowers around the area. No one would mess around with the place. We even covered up place where the bones were exposed. We took care of this place until my mother died. When we sold the house, the new owners knocked it down. A friend of ours, an old Japanese man used to live in the first lot. I saw him one time after we moved out, and asked him how things were going, he told me the haoles had knocked the heiau down and that during the night time you could hear voices and wailing like. Later when I saw him again, he told me he'd moved. There was too much spooky stuff going on down there. The new house is still there, you can see the place.

[going outside]

Where the taro is planted [a circular patch], this is where the mound of stones was that had been in the yard, when we bought the place. It was a nice mound with the rocks from the field all neatly set in place. Down there [pointing to the back section of the yard in a swale], that's the remnant of the old railroad berm. It was built up to cross the swale, and ran right up through a portion of my house.

KM: This railroad berm is really neatly built.

KB: That's how they made all these things, really nice work.

KM: Now I see that you've purposefully save this section of the railroad berm. Do you feel that preserving some of these things is important to our history? This shows us some of our past, and now, sugar is pau.

Yes, these things have historic value also [end discussion].

Conversation of January 4, 1996

During a telephone conversation on January 4, 1996, Mr. Bell shared some of his recollections about the disposition of operations of the Waiākea Mill following the tidal wave (tsunami) of April 1, 1946:

KB: The mill was already on the way out at the time of the tidal wave, and my father had already retired too. Following the tidal wave, all the tugs and scows that were used to haul the processed sugar from the bag-sugar warehouse to the wharf, were all destroyed. I remember that as a child, I would go down to the warehouse and ride the tugs along Wailoa, across Waiākea pond and out to the wharf. There would be up to ten scows tied together in a line and pulled by the tug to the wharf. In this part of the operation, they didn't use the trains. The trains hauled the cane from the fields to the mill, and the tugs hauled the processed sugar and molasses to the wharf for shipping. Some people today say that trains ran sugar between the mill and the wharf, I never saw that.

Now, after the tidal wave, that killed the mill operations. There was so much damage, and the trains along the coast never ran again. After they began harvesting again, sugar from the Waiākea fields was processed by 'Ōla'a Sugar Company, and I think maybe at Pāpa'ikou. Shortly afterwards, the Waiākea Mill closed down for good in about 1948, the

mill works were stripped. All the salvageable equipment was shipped away, I think some of the mill equipment was sent to the Philippines.

Additional Information on Land Use in the Kāwili-Komohana Vicinity

At a November 10, 1993 public hearing regarding the Pūʻāinakō road extension Mrs. Mina Kealoha (now deceased), a former native resident of the area, testified that some 70+ years ago, her mother regularly traveled along a trail which now lies basically under the Komohana Road alignment. The trail led her to an area above the UH-Hilo Campus. Mrs. Kealoha had been told by her mother that it was a place where people had lived formerly, and at that time, Mrs. Kealoha and her mother collected banana tree bark to be used for ornamental weaving in lauhala mats (pers. comm. P. Layton and P. Burns et al., December 1993). It is noted that one popular banana species cultivated by ancient Hawaiians was the maiʻa 'ele'ele (black banana). Strips of the dried black layers of the maiʻa 'ele'ele were woven into geometric designs in moena lau hala (pandanus leaf mats) and other woven products.

Also, as a part of another study (PHRI Report 1370-061094) conducted in 1994, the author also spoke with Mrs. Junko Higa-Nowaki regarding another parcel of land within Waiākea Cane Lot 6 (TMK:2-4-57:01), situated just makai (on the Kinoʻole Street side) of the UH-H campus. Mrs. Nowaki's father, Mr. Saburo Higa, had worked for Flowers of Hawaii (FOH) on the land within and below the UH-H Campus during the late 1940s to early 1950s, and was familiar with the area. As a result of those discussions, contact was made with several other former co-workers of Mr. Higa's, and the following information regarding the presence of stone mounds within portions of the UH-H Campus was collected from Mr. Hajime Miyamoto, a former field boss with FOH:

On the FOH property (below the current project area), there had been some stone mounds that were generally called maru-ishi (round stones) by the Japanese. Later, because the Portuguese had difficulty pronouncing maru-ishi, the words came to be pronounced marush. It was assumed that the stone mounds were left over from sugar cultivation (pers comm. January 4, 1994).

Though the former FOW area was situated approximately ½ mile below the current study location, in an area of a gentler topography, the narrative does contribute information pertaining to the development of field clearing mounds, as mentioned by Mr. Bell.

Conclusion and Recommendations

In Hawai'i and around the nation, there has been a growing awareness and concern about the stewardship of our cultural and natural landscapes. Cultural resources are those features on the land that remind us that others once lived here. They tell us who we are and where we came from. The Hawaiian culture evolved in partnership with the natural environment of the islands, and may be said to be as dynamic as the environment itself. Thus, in the Hawaiian mind the natural and cultural resources are one and the same. Thus, in the context of Hawaiian cultural values and cultural resources, we are addressing not only things of a physical, geographic, or archival nature, but, we are also addressing the intangible—sense of spirit and place that traditional people share with the world around them. Cultural perception, the concepts, beliefs, ideas, and values, handed down over generations, are perhaps the most dynamic of cultural artifacts.

On a national level, the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470) sets forth a national policy by which "our prehistoric and historic resources can exist in productive harmony and fulfill the social, economic, and other requirements of present and future generations" (it is noted that the State Historic Preservation Division Laws of Hawai'i are patterned after Federal Laws). The NHPA requires, that we find ways to care for our past, while moving into the future. Perhaps of greater importance than the mandates of a "law," is that as residents of a given area we have both moral and ethical obligations to the past and the future to protect our cultural, historic, and natural resources. This growing awareness of the need to protect Hawai'i's cultural resources has evolved primarily as a result of communities speaking out and standing up to take action, where none was taken before.

The present study provides readers with a detailed overview of archival and literary resources, that document Hawaiian residency patterns and land use practices in the ahupua'a of Waiākea, Hilo. The study also provides readers with a general overview of the significant activities of the historic period (c. 1830-1920s) that brought about dramatic, and in many ways drastic changes to the cultural and natural landscape of Waiākea and the larger Hilo region. While it is clear that culture itself is as dynamic as the environment that gives it life, the changes over the last c.160 years in Waiākea-Hilo, have nearly erased all physical record of indigenous Hawaiian history (i.e., the features of the cultural landscape that represented the longest period residency in the district). Bluntly stated, native Hawaiian residency, stewardship, and use of the land in Waiākea, spanned more than 1,000 years of history prior to western contact (1778). Foreign activities over the last 160 years have nearly stripped the region around Hilo Town of its Hawaiian cultural sites and indigenous and endemic natural resources.

McEldowney 1979 notes that many early visitors to the area of what is now Hilo Town (between the period of c. 1820-1850) described the nature of the land as being an "open parkland gently sloping to the base of the woods" (McEldowney 1979:19). The area was verdant, and covered "by widely spaced "cottages" or huts, neatly tended gardens, and small clusters of trees..." (ibid.). It is estimated by early visitors, that in an area extending between four to six miles behind Hilo Bay, that the Hawaiian population cultivated a large expanse of unwooded land, thus supplying the needs of the regions large population (ibid.). In the 1870s the presence of ancient Hawaiian sites, ranging from trails and resting places, planting grounds, residences, canoe making sites, and a heiau (formal ceremonial sites) in the uplands of Waiākea were still recorded in the region behind the town of Hilo (cf. Boundary Commission testimonies in this study).

Between the c. 1870s-1940s, the cultivation of sugar cane was developed into the economic life-blood of the Hilo area. It was during this same period that the greatest change to the cultural landscape of Hilo also occurred. Activities associated with the clearing of fields and cultivation of sugar cane, and development of the rail system in the Waiākea area totally changed the land. Even the largest Hawaiian sites—the fishponds of Hanalei, Kalepolepo, Mohouli, Waiāhole, and Hoakimau—were filled and destroyed; only portions of the Waiākea fishpond remain. It was during

this same time, that most of the inland Hawaiian structural and physical remains situated within the areas being developed as plantation fields, the: kauhale (residences), 'ilina kūpapa'u (burial sites), pā and iwi 'āina (walls and land unit boundaries), ala hele and ala loa (trails and thoroughfares), mahina 'ai and māla (gardens and cultivated patches), heiau (formal ceremonial sites), and all native cultural features on the land were dismantled and destroyed.

While commenting on his own personal observations between 1930-1932, and referencing the site records of two earlier archaeological studies that included the Waiākea area, Hudson (Ms. 1932) noted that "No archaeological remains are to be found in the city of Hilo itself except a few stones which are said to have been taken from heiaus" (Hudson Ms. 1932:236). The record of the destruction of Hawaiian sites is also partially recorded in the writings of historic period residents (selected excerpts cited within this study). Additionally, the interview conducted with Mr. Kenneth Bell as a part of this study records that Hawaiian artifacts were still being collected from the fields in Waiākea as they were being cleared in the 1920s.

Based upon documented traditional uses of the environmental zone in which the study area parcels are situated (i.e., Cane Lots 12, 13, 17, 18, 19, 20, & 20-A), it is likely that a variety of traditional Hawaiian sites once existed on the land. It is also clear, that most of the study area was placed under cultivation by operators of the Waiākea Mill Company and that use of the railroad lines was also occurring within the area into the 1940s. Surface features presently occurring in the study area include numerous stone mounds, ramped platforms, terraces, wall features, enclosures, and a railway berm. Based on informant interviews (i.e. Eugene Olivera and Kenneth Bell), these features were most recently associated with cultivation of sugar cane, and later ranching activities. Based on documentation of traditional use of the general area (e.g. McEldowney's Zone II), it is very likely that certain archaeological features in the project area may be in-part made up of the remains of earlier period habitations and features associated with traditional land use practices—primarily features associated with agricultural practices. Indeed, the interview with Mary Kawahineha'aheo Kama'u-Fragas, records that her father (Samuel Hiwauli Kama'u), who worked in the area as a surveyor prior to 1943 (born in 1889, Mr. Samuel H. Kama'u died in February 1943), felt strongly that the walls and other features were once a part of an old Hawaiian community. A community to which it was believed the Kama'u family had genealogical ties.

In the lands around Hilo Bay, features that are representative of a long period of Hawaiian settlement and residency have all but disappeared—primarily as a result of activities associated with the development of sugar plantations. In 1996, while contemplating the level of impacts of the Pūʻāinakō Road Extension, we now find ourselves at an interesting point in history. We are once again standing on the brink of making decisions that will erase another aspect of our community's history. The questions regarding the archaeological sites associated with the Pūʻāinakō Road Extension and University of Hawai'i-Hilo Campus (UH-H) are greater than preservation or destruction of sites—they are questions about retaining unique facets of our past. Additionally, these questions cannot simply be answered by black-and-white adherence to preservation laws—what looks good on paper does not always address the sometimes less tangible "gray" areas. One of the issues faced by County Planners, State permitting agencies, the Federal Highways Divisions, and the people of Hilo, is "Are we simply going to repeat history, and once again erase all evidence of the previous activities that made Hilo what it is today and brought so many people to this community?"

The sites and resources situated within Cane Lots 12, 13, 17, 18, 19, 20, & 20-A represent one of the last opportunities that our community has to touch its past. These archaeological resources offer the community, UH-H, and State a unique opportunity to protect and interpret—"in the field"—the history of Hilo. The UH-H is a place that stimulates thought, and fosters thinking that is responsible. Through education, we seek to help improve our community's well being and sense of identity. These archaeological resources within Cane Lots 12, 13, 17, 18, 19, 20, & 20-A are among the most unique resources of the UH-H. They offer students and our community a unique opportunity to learn about and touch our past, and share our history with future generations.

It is recommended here, that agencies involved with planning the Pūʻāinakō Road Extension take serious steps towards forming a partnership with Hoʻoikaika and interested members of the community, and set a foundation for addressing concerns of protecting the past while also meeting the needs of the present. The most successful efforts in responsible management and resource protection come about when land managers and the public are aware of site significance; when concerns are addressed openly and brought into proactive preservation planning processes. Community participation in planning and operating phases also fosters an environment of trust, and encourages a sharing of information. A resources partnership and stewardship program for the archaeological sites of concern to this study will facilitate good planning and a successful obtaining of long-term management goals.

There is an <u>urgent need to collect additional information from the elder people of our community</u>, individuals who lived first hand the history that makes our community unique. When the elders are gone, no one will know how we arrived at this point of history. It is hoped that the County of Hawai'i, the State, and various organizations (e.g., businesses, museums, community groups, the Office of Hawaiian Affairs, and large land owners...) will support and facilitate the collection of oral histories. Knowledge of land use and site histories can help communities make intelligent management decisions.

O nā mea maika'i mālama, o nā mea maika'i 'ole kāpae 'ia (Keep that which is good and set that which is not good aside)

References Cited

Board of Commissioners

1929 Indices of Awards made by the Board of Commissioners to Quiet Land Titles in the

Hawaiian Islands. Honolulu.

Bingham, M.

1969 A Residence of Twenty-one Years in the Sandwich Islands. Hartfort.

Bird, I.

1974 <u>Six Months in the Sandwich Island</u>. Rutland: Charles E. Tuttle Co.

Chinen, J.J.

1958 The Great Mahele: Hawaii's Land Division of I848. Honolulu: University of Hawaii

Press.

1961 <u>Original Land Titles in Hawaii.</u> Honolulu: privately published.

Coan, Titus

1882 Life in Hawaii. New York: Anon Randolf & Co.

Ellis, Wm.

1963 Journal of William Ellis. Advertiser Publishing Co., Ltd. Honolulu, Hawaii.

Fornander, A.

1916- Fornander Collection of Hawaiian Antiquities and Folklore.

1919 (9 vols.). Honolulu: Bishop Museum Press.

l969 An Account of the Polynesian Race: Its Origin and Migrations. Tokyo: Charles E.

Tuttle Co. Inc.

Handy, E.S.C., and E.G. Handy (with M. K. Pukui)

Native Planters in Old Hawaii. B.P. Bishop Museum Bulletin 233. Bishop Museum

Press, Honolulu.

Hudson, A.E.

(1932) Ms. Archaeology of East Hawaii. Manuscript on file. Dept. Anthro., B. P. Bishop

Museum.

Hunt, T.L., Ph.D., and M.J. McDermott

1993 Archaeological Inventory Survey Pu'ainako Street Extension Project, Lands of

Waiakea, Kukuau 1 and 2, and Ponahawai, South Hilo, Island of Hawai'i. Hilo,

Hawai'i.

lʻi, J.P.

1973 Fragments of Hawaiian History. Honolulu: Bishop Museum Press.

Kamakau, S.

1961 Ruling Chiefs of Hawaii. Honolulu: The Kamehameha Schools Press.

Kame'eleihiwa, L.

1992 Native Land, and Foreign Desires. Bishop Museum Press.

Kelly, M.B et. al.

Hilo Bay: A Chronological History; Land and Water Use in the Hilo Bay Area, Island of Hawai'i. BPBM Press, Honolulu.

Lydgate, J.M.

1918 "Some Plantation Memories." Hawaijan Almanac and Annual for 1917. Honolulu.

Maly, Kepā (translator)

Ms. Ka'ao Ho'oniua Pu'uwai no Ka-Miki (The Heart Stirring Story of Ka-Miki). A 1992-1993 translation of a legendary account of people and places of the island of Hawai'i. published in the Hawaiian Newspaper Ka Hōkū o Hawai'i; January 8, 1914 - December 6, 1917.

McEldowney, H.

Archaeological and Historical Literature Search and Research Design: Lava Flow Control Study, Hilo, Hawai'i. BPBM Report, Honolulu.

Pukui, Mary K.

1983 'Ōlelo No'eau: Hawaiian Proverbs & Poetical Sayings. Bishop Museum Press. Honolulu.

Stewart, C.S.

1970 <u>Journal of a Residence in the Sandwich Islands, During the Years</u> 1823, 1824 and 1825.... University of Hawaii Press, Honolulu.

Stokes, J.F.G., and T. Dye

Heiau of the Island of Hawai'i; A Historic Survey of Native Hawaiian Temple Sites. BPBM, Honolulu.

Tatar, E.

Nineteenth Century Hawaiian Chant. Pacific Anthropological Records No. 33, B.P. Bishop Mus. Honolulu.

Thrum, Thos. G.

1907 "Tales from the Temples." Hawaiian Almanac and Annual for 1908:48-78. Honolulu.

Tomonari-Tuggle, M.

1985 Cultural Resource Management at the Keauhou Resort. Cultural Resource Management Plan. PHRI Report 89-060185. Prepared for Kamehameha Investment Corporation.

Wilkes, C. 1845

Narrative of the United States Exploring Expedition During the Years 1838-1842, Under the Command of C. Wilkes, U.S.N. Vol. 4. Philadelphia: Loa and Blanchard.

APPENDICES

Historical Documentary Research and Oral History Interviews:

Waiākea Cane Lots (12, 13, 17, 18, 19, 20 & 20-a)

Land of Waiākea, District of South Hilo, Island of Hawai'i

Appendix 1. Question Outline for Waiākea Cane Lots Oral History Interviews

The following questions are meant to provide a basic format for the oral history interviews. The interviewee's personal knowledge and experiences will provide direction for the formulation of other detailed questions, determine the need for site visits, and/or other forms of documentation which may be necessary.

questions, determine the need for site vi	isits, and/or other forms of doc	tumentation which may be necessary.
Interviewees Name:	Pho	ne #:
Date:to	Location:	Interviewer:
	ow did you become familiar w	ith the history sites, or events associate
with Waiākea? Who are/were your parents? (father)	(mother)	
Where did you grow up? Additional family background pertinent Where are you presently residing?	to Waiākea:	
Are you familiar with the area of W situated (cf. TMK:2-4-01 / Waiākea Ra		ʻāinakō Road Extension — UH-Hilo a vs, 1930)? How familiar?
Are you familiar with place names of W	Vaiākea area? They are?:	
Have you heard stories about the p or sites that are associated with the p reading books)?		a—origins, events which occurred ther n who (personal conversations or fro
i.e. Ceremonial sites or practice Village or house sites; Wet land and dry land agr Gathering plant materials; Burials, etc.	ces; ricultural sites and practices;	specify period in history):
What kinds of activities or land use did Sugarcane Cultivation; Ranching and pasturage; Fallow or wild Description:	you observe in the area?	
What are your thoughts about the propo	osed Pū'āinakō Road Extension	n use of the study area?
Additional Questions and Comments:		
		Kepā Maly (Waiākea Cane Lo

Appendix 2. Waiākea Cane Lots, Oral History Project Personal Release of Interview Records

I, Kenneth Bell, met with Kepā Maly (Kumu Pono Associates), and participated in informal (not recorded) oral history interviews regarding my recollections of history and land use in the vicinity of the Waiākea Cane Lots 12, 13, 17, 18, 19, 20 & 20-A, and Waiākea Mill operations in Hilo, on December 4, 1995. On January 4, 1996, additional information was discussed over the telephone, and on March 1, 1996, we conducted a site visit of areas previously discussed to locate particlar sites. I have reviewed the typed, paraphrased summary of handwritten notes taken during our discussions, and agree that said documentation is complete and accurate, except for those matters specifically set forth below the heading, "CLARIFICATION OR CORRECTIONS." I further agree that the information may be made public, subject to my specific objections to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS."

CLARIFICATION OR CORRECTIONS (areas marked on attached written texts):

CONFIDENTIALITY—SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS (areas to be deleted marked on attached typed texts):

Typed Transcription of Interview R	eviewed and accepted on Date:	·
Restrictions set by Interviewee:		
Interviewee	Interviewed Witness	aly

CT. t. D. and a second on Date.

Date of Signature upon Final Release: June 14, 1994

Kepā Maly (Waiākea Cane Lots)

Appendix 2. Waiākea Cane Lots, Oral History Project Personal Release of Interview Records

I, Mary Kawahineha'aheo Kama'u-Fragas, met with Kepā Maly (Kumu Pono Associates), and participated in a formal taped oral history interview regarding my recollections of history and land use in the vicinity of the Waiākea Cane Lots 12, 13, 17, 18, 19, 20 & 20-A, Hilo, on October 13, 1995. I have reviewed the typed, transcript of the interview and agree that said documentation is complete and accurate, except for those matters specifically set forth below the heading, "CLARIFICATION OR CORRECTIONS." I further agree that the information may be made public, subject to my specific objections to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS."

CLARIFICATION OR CORRECTIONS (areas marked on attached written texts):

CONFIDENTIALITY—SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS (areas to be deleted marked on attached typed texts):

Typed Transcription of Interview and Copy of Interview Tape recieved on November 29, 1996.

Restrictions set by Interviewee: Section regarding house fire; page 9, deleted from narrative.

Mery Tragas
Interviewee Interviewee-Witness

Date of Signature upon Final Release: Auto 2, 1996

Kepā Maly (Waiākea Cane Lots)

Appendix 2. Waiākea Cane Lots, Oral History Project Personal Release of Interview Records

I, Josephine Nāwai 'ōpua Kama'u-Kunewa, met with Kepā Maly (Kumu Pono Associates), and participated in a formal taped oral history interview regarding my recollections of history and land use in the vicinity of the Waiākea Cane Lots 12, 13, 17, 18, 19, 20 & 20-A, Hilo, on November 9, 1995. I have reviewed the typed, transcript of the interview and agree that said documentation is complete and accurate, except for those matters specifically set forth below the heading, "CLARIFICATION OR CORRECTIONS." I further agree that the information may be made public, subject to my specific objections to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS."

CLARIFICATION OR CORRECTIONS (areas marked on attached written texts):

CONFIDENTIALITY—SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS (areas to be deleted marked on attached typed texts):

Typed Transcription of Interview Reviewed and accepted on Date: 29, 1895

Restrictions set by Interviewee:

ine Whenewor Kera Hal

Date of Signature upon Final Release: Feb. 27, 1996

Excerpts from interview to be med in Cane Lots Report _

Kepā Maly (Waiākea Cane Lots)