WAIMĀNALO, O'AHU – A PRELIMINARY HISTORICAL OVERVIEW (prepared by Kepā Maly, February 2000)

Mo'olelo (Traditions)

The mo'olelo (traditions) of Waimānalo tell us that in times past, the coastline of Waimānalo was a place that was life giving—the land, water, and ocean resources gave life to the land and people of the land. The following narratives include a few of the historical accounts about land use and cultural sites in Waimānalo—with emphasis on several locations near the shore between Pūhā and Pāhonu—and changes that began occurring in the community in the nineteenth century. The information comes from several sources (cited in text below).

Traditional narratives contain valuable information for interpreting traditions, practices, place names, and events which occurred in particular areas. One of the moʻolelo which describes some of the features and resources of the Waimānalo vicinity is found in the epic account of the journey of Hi'iaka-i-ka-poli-o-Pele (Hi'iaka) the youngest sister of the goddess Pele to Kaua'i. Excerpts of one version of the tradition "He Moʻolelo Ka'ao no Hi'iaka-i-ka-poli-o-Pele" (A Traditional Story of Hi'iaka who is Held in the Bosom of Pele) — as published in the Hawaiian newspaper, Ka Hōkū o Hawai'i (September 18, 1924 to July 17, 1928) — was translated by Kepā Maly (Maly ms.). This version of the account has yet to be translated in its entirety.

The narratives follow the basic format of Nathaniel Emerson's 1915 rendition of the story of "Pele and Hi'iaka," but contains an added wealth of alternate island-wide place name accounts, narratives about the famous deity which gave their named to Makapu'u and Moeau, Waimānalo site narratives which document practices of natives of the land, and chants. The following English translations (prepared by Maly), are a synopsis of the Hawaiian texts, with emphasis upon the main events of the narratives.

"He Moʻolelo Kaʻao no Hiʻiaka-i-ka-poli-o-Pele"

The goddess Hi'iaka traveled from the island of Hawai'i to Kaua'i, stopping on Maui, Moloka'i, and O'ahu, as she went to fetch the chief Lohi'au-ipo (Lohi'au) from Hā'ena and return with him to Pele's domain at Kīlauea, Hawai'i.

On the shores of Kā'anapali, Hi'iaka, Wahine'ōma'o, and Pā'ūpala'e, met with two men who were preparing their canoe for a journey to O'ahu. The canoe men told Hi'iaka that their journey would take them to the Ko'olau (windward) side of O'ahu, where they would probably land on the shore of Waimānalo, below Makapu'u. When preparations were completed, the men told Hi'iaka mā (and her companions), to wait on the shore until the canoe was in the water, and that then they could board the canoe to begin the journey across the sea.

Passing the point of Kalā'au, Moloka'i [the southwestern point of Moloka'i], they reached the area between Moloka'i and O'ahu. It was here that Hi'iaka saw the large fleet of canoes at rest outside of Makapu'u. The task of the fishermen of this canoe fleet, was fishing for the famous fish of Makapu'u, "ka uhu ka'i o Makapu'u" (the parrot fish cliff of Makapu'u). (The ocean below the cliff of Makapu'u was famous for its uhu fish.) Hi'iaka then turned back and looked towards the point of Kalā'au and then turned and looked again at Makapu'u and she chanted:

Pali kauhuhu ka uhu ka'i o Makapu'u	At the edge of the precipice of is the parrot fish cliff of Makapu'u
Huki ka lani i ka lae o Kalā'au	The point of Kalā'au pulls at the heavens
Kēlā pali makua 'ole olaila	That is a parentless cliff there [it stands alone]
Ama kauwā ka pali o Ulanamawao–e	The cliff of Ulanamawao [Ulamawao] is a servant like the canoe outrigger
Mao wale ana i ka lani	But the skies are clearing
Kēlā pali kuʻi hāinu i ke kai	And that sheer cliff drinks from the ocean [rises from the sea]
l ke kai ke akua pōloli o Moeau–e	In the sea of the hungry deity of Moeau [the point on the leeward side of Makapu'u]
Ola i ko lā pōloli	Be relieved of your hunger [which is]
'Īna'i pū me ka waimaka ia	Garnished with tears
E uwē mai hoʻi–e	Crying out
Aloha 'ino no e	O what a pity

When Hi'iaka finished her chant, the steersman of their canoe called out from behind, and said that he had heard of masters of hula among their people of Moloka'i, but none of them have chanted as well as you... As the canoe drew closer to O'ahu, Hi'iaka turned and saw the expanse of 'Ihi'ihilauākea with the water of Kanono'ula, the plain of Ka'ea and the place called Kuamo'o-a-Kāne...

...As they continued their journey, they drew near to Makapu'u. Hi'iaka then saw the woman which dwelt along the shoreward point. Hi'iaka then chanted (November 17, 1925):

Noho ana Makapu'u i ka lae He wahine ke akua pōloli Pōloli 'ai 'ole Make i ka 'ai 'ole Makapu'u nui kua ke auwē I 'ai na mākou—e Hōmai ana ho'i ua 'ai Makapu'u dwells upon the point She is a goddess that hungers Hungers because of a lack of food Dying because of a lack of food Great Makapu'u, lamenting deity Let us have something to eat Bring forth the food.

Makapu'u then answered, "perhaps if you land on the shore you might receive some food. Here you are asking from the ocean, come, land on the shore, beach your canoe." The steersman then spoke to Hi'iaka, telling her, "Say, we have food upon our canoe, perhaps we should eat prior to landing. And here you are asking the people of the land for food, when we already have food here."

Hi'iaka told them "no, we are not really hungry, we are just suggesting it to those people there on the land to understand their nature. Perhaps the people on shore will bear kind thoughts for us upon the canoe." Now, Hi'iaka knew that her companion Wahine'ōma'o was indeed hungry, but she did this to see if the people on the land would give food to her friend... If we land and that the people on shore have no food, then you will have no trouble, for you will have the food which you brought from Moloka'i. As they continued shoreward, they also saw the group of fishing canoes which they had seen fishing for the uhu fish in the channel between O'ahu and Moloka'i also returning to the shore. They passed by them on the Makapu'u shore side, and landed their canoes on the Ko'olau side of Makapu'u, at the place which was near Waimānalo. Hi'iaka and her traveling companions landed their canoe near the place where Makapu'u dwelt in her fearful condition. When the men saw the many eyes upon the head of that supernatural (kūpua) woman, they were overcome with fear. But Hi'iaka told them, let us go to be hospitably welcomed in the house of the native of this land.

"Behold our native resident, let us go and visit the home of the one who invited us." The men denied the invitation, hiding their fear, they said, "you go, and since we have food upon the canoe, we will continue our journey by sea to Kailua of the Ko'olau." They did not truly want to go to Kailua, but they said it because they were overcome with fear from seeing this magical woman. Hi'iaka mā then left the canoe and the men quickly departed in their canoe to continue along the points of the Ko'olau

At that time, a strong wind began to blow, and also the current from the Kona (leeward) side of O'ahu began pulling at the canoe of these two men. Though they tried with all their strength to paddle, they couldn't, and the current took them around the cliffs of Makapu'u. So great was the fear of these men for the many-eyed woman [Makapu'u], that when they saw a small, calm landing on the Kona side of O'ahu, they paddled quickly to it and landed their canoe [at Kaloko, below Kealakīpapa]. The moment the crunching sound of the canoe landing on the shore was heard, the two men leapt from the canoe with their possessions and fled from the place of that fearful woman which they had seen. They fled across the plain of Ka'ea and the canoe remains at the place where they left it.

In the meantime, Hi'iaka mā, went to the place where Makapu'u was situated, waiting for their arrival. Makapu'u was the feared deity of that place, and it is because of her, that the place is called Makapu'u to this time. The native resident [Makapu'u] gave her greetings to the visitors [Hi'iaka mā], and Makapu'u then began to prepare food for her visitors. Makapu'u then invited her visitors to eat. Hi'iaka then spoke to Makapu'u, "Makapu'u, perhaps you know the nature which we two share, and that we can not partake of real food. Thus it has been from the very beginning and it is right because of our [godly] nature. The food which you have prepared, shall be eaten by our companion, Wahine'ōma'o."

Wahine'ōma'o then began to eat the meal which Makapu'u had prepared, and Hi'iaka and Pā'ū-o-Pala'e where satisfied with the food [offering of the essence of the food] which was for the gods. When Wahine'ōma'o was finished eating, they spoke with Makapu'u about the journey to fetch the man [Lohi'au] for the elder sister [Pele]. They then departed from the place of their native host with fondness.

Through the explanation of one of the hula masters ('ōlohe hula), who died not too long ago, and who saw the stone body of Makapu'u with her own eyes; she said that it was set not far from the point which is called "Makapu'u." It is a large stone, and on the head of the stone, she saw the bumps which glowed like coals in the shape of human eyes. That stone image remains in the cave to this day. Whether what the hula master said is true or not, is for you, oh good readers to decide. The woman who

revealed this information, was Naka'a Kahaunaele, and perhaps the people who dwell in the area of Kuli'ou'ou and Wai'alae will recognize her name (November 24, 1925).

Hi'iaka mā departed from the place of that supernatural woman on the point of Makapu'u, and went to the shore of Waimānalo. Wahine'ōma'o saw a woman sitting on a bluff in the wind, and she then said to Hi'iaka: "Say! There is a woman sitting on the cliffs' edge, turning side to side like a bunch grass which is held in the hand. Who is that woman?" Hi'iaka answered, "That woman which we see there is a native resident of this place. It is Mālei who you see there." Thus, Hi'iaka spoke to her friend Wahine'ōma'o.

Wahine'ōma'o then said to Hi'iaka, "Perhaps she knows who you are." Hi'iaka said, "I will call to her to see if she knows my name, but if she does not call out my name, she does not know who I am." Hi'iaka then chanted to Mālei—

It is I who travel along the stormy points of of Koʻolau,
From the Point of Moeau which fronts the sea,
The woman has traveled along the cliffs,
To the uhu fish observing cliff of Makapu'u
To where the woman wells on the cliff in the wind
It is along Koʻolau, that this journey of strangers will have life
A chant is offered among the grasses
Life comes through the grass flowers
Aloha o Mālei,
Let us greet one another.

That women who dwells along the these cliffs, heard Hi'iaka's voice, and responded, "Yes. Come o Hi'iaka-i-ka-poli-o-Pele, come here, but there is no food. This is a place without food (he kaha 'ai 'ole kēia). There is but one food here, it is the flowers of the grass that fill the stomach. One may also open the mouth to the wind, and in that way, the stomach may also be filled. That is how one is filled here. It is the food of this place at which I dwell." Hi'iaka responded to Mālei, telling her that she and her companions were not hungry, we have simply come to see the dark green cliffs of your land. Aloha to you! (December 1, 1925)

Nathaniel Emerson's (1915) version of the story provides one additional piece of information, which will be included here because it describes agricultural practices in the area. Hi'iaka had encouraged Makapu'u and Mālei to cultivate the land, to plant sweet potatoes with which to appease the hunger, they responded:

Cultivate this plain you say; plant it with sweet potatoes; see the leaves cover the hills; then make an oven and so relieve your hunger. Impossible! (Emerson 1915:89)

Traveling a little further, Hi'iaka learned that:

It is indeed a barren land. Fish is the only food it produces. Our vegetables come from Waimanalo [Pūhā]. When the people of that district bring down bundles of food we barter for it our fish (ibid.)...

Eighteenth Century References To Waimānalo

Native historian, Samuel M. Kamakau tells readers that during the latter years of Kahekili's residence on O'ahu, Kamehameha I set his eyes on adding Kahekili's kingdom to his own. In that time (ca. 1790), Kamehameha sent a messenger to discuss his intentions with the elder Kahekili, whom he respected. It is in this account that readers learn of the wealth of Waimānalo as a land of agriculture and fisheries. The messenger Ki-kane arrived before Kahekili and:

...threw down two maika stones, a black one and a white one. Ka-hekili said when he saw these stones, "This stone (the white) brings life through farming and fishing, rearing men, and providing them with food; this other stone (the black) brings war."... Kahekili as, "Is Kamehameha coming to Oahu to fight?" "Yes," answered Ki-kane. "What harbor will he choose?" "It was Kiko'o's counsel to make Waimanalo the harbor and battle sites." "It is too low there to cast sling stones to reach the heights. It is good only for food and fish. If stones are thrown from above nothing can save the battlefield. Who else gave advise"? "Ka'a-loa advised Wai-kiki as the harbor and battlefield." "That is much too low. Neither those on the sea nor those on the shore have the advantage. It is a place for cultivating food, not a battlefield. Who else?" "Kaua-kahi-a-kaha-ola counsels Koko as the harbor and battle field." "A wise man! He has the right idea. The provision patches of Ko'olau are far distant. There is a good site above, large enough to fight on. Go back and tell Kamehameha to return to Hawaii and watch, and when the black tapa covers Ka-hekili and the black pig rests at his nose, then is the time to cast stones..." (Kamakau 1961:150)

Shortly after Kahekili's death in 1793, one of his sons, Ka'eokūlani ruled the Maui Kingdom for a short while, but then desired to return to his home on Kaua'i (Ka'eokūlani was the father of Kaumuali'i of Kaua'i). Kalanikūpule, Ka'eokūlani's brother, had been established as the chief of O'ahu following Kahekili's death. Hearing that Ka'eokūlani (Ka'eo) was planning to return to Kaua'i, Kalanikūpule and his counselors feared that Ka'eo might try to take control of O'ahu as well. It is in this period (ca. 1794), that Kamakau tells readers that at — Kalapueo (the area where the coastal flats narrow and the cliffs draw near to the shore); Kukui (the former fishing village on the east side of Pāhonu); Muliwai'ōlena (the drainage basin the enters the sea near the vicinity of the present-day Waimānalo Beach Park); Waimānalo (the area fed by the stream which forms Pūhā) — all locations on the shore of Waimānalo Ahupua'a, were fortified and that battles were fought:

Not knowing what his plans might be they [Kalanikūpule and his counselors] made preparations for war, digging trenches and throwing up earth works at Kukui, Kalapueo, and Waimanalo [On Oahu]. At Kukui a severe battle was fought in which one of the favorites, a war leader of Ka-lani-ku-pule, was shot by Mare Mara at the stream of Muliwaiolena as he stood with a feather cloak about his shoulders directing the battle with his hands. Two days and two nights Ka-'eo-ku-lani lay out at sea, then Ka-lani-ku-pule called off the fighting and the two had a friendly meeting at Kalapawai in Kailua, Ko'olaupoko... (Kamakau 1961:168)

Waimānalo Described in ca. 1822

In 1821-1822, G.F. Mathison visited O'ahu while on a journey around the world. He provides readers with one of the earliest descriptions of travel through Waimānalo and around Makapu'u to Kealakīpapa and Maunalua:

From this spot [Nuuanu Pali] we descended into the plain below. And finding ourselves on the north-east side of the island, we resolved to return homewards round its eastern extremity. The remainder of our walk this day, however, was more fatiguing than agreeable. Exposed to the scorching rays of the sun, we passed over successive hills and plains, dry and barren, without trees or human habitations. We met occasional parties of natives, many of whom appeared to take pleasure in accompanying us...

At six o'clock we reached a small village about a mile from the seashore [probably not far from the present village of Waimanalo], and easily obtained a tolerable hut to pass the night in; it belonged to an English sailor, who had established himself here...

At daybreak we resumed our walk, and perceived that the ridge of hills we had already crossed the preceding day, extended to the eastern extremity of the island; so that it became necessary to make another journey over them. The path, however, over this ridge being unfrequented, and the cliff becoming very lofty as well as precipitous, our difficulties were proportionally increased. Jack the sailor accompanied us, and proved greatly superior in usefulness to our Indian guide, who knew nothing of this part of the country. Thick jungles of brushwood occasionally impeded our progress, but afforded us the opportunity of seeing many indigenous trees and shrubs...About two hours were spent in gaining the summit of the cliff; when, bidding adieu to our sailor friend, we descended through a valley thickly wooded, which sloped gradually downwards to the plain [Kealakīpapa]... [Mathison, 1825, IN McAllister 1933:193]

Waimānalo – Pūhā Agricultural System

While at Bishop Museum, Kawena Pukui translated the following description of the Waimānalo agricultural system and community as it looked in 1847:

At that time, it seemed that the valley [Waimānalo-Pūhā] was filled with breadfruit, mountain apples, kukui and coconut trees. There were taro patches, with banks covered with ti and wauke plants. Grass houses occupied the dry lands, a hundred of them here and sweet potatoes and sugar cane were much grown. It was a great help toward their livelihood.... The whole ahupuaa of Waimanalo was leased to white men except the native kuleanas and because the cattle wandered over them, they were compelled to build fences for protection. The taro patches that were neatly built in the time when chiefs ruled over the people and the land, were broken up. The sugar cane, ti and wauke plants were destroyed. The big trees that grew in those days, died because the roots could not get moisture. The valley became a place for animals. [Ka Hoonanea o Ka Manawa Kuokoa, October 26, 1906; B.P. Bishop Museum, Hawaiian Ethnological Notes]

In Native Planters, Handy (1940) described the ahupua'a of Waimānalo in the 1930s as:

This ahupua'a has only one large stream, from which it takes its name, the water of which irrigates the sugar cane now grown on the lower slopes and lowlands. Much of the lowland now under cane was formerly in taro. But wet taro was by no means limited to the lowlands irrigated from the main stream.

The old kamaaina, Edward Niaupio, named nine terrace sections whose water came from small streams and springs flowing out of the high mountain range. These sections ran for 1.5 miles in a semicircle at the foot of the mountains round the broad base of Waimanalo Valley, from below Puu Loa well toward Puu o Kona. Several of these, now covered with brush, were examined and found to be well preserved. The only taro grown in the district in 1934 was that planted by Edward Niaupio. (Handy 1940:100; Hawaiian Planter, Vol I).

He'e Pu'e Wai at Pūhā – A Visit by Queen Emma

In November 1874, dowager Queen Emma, made a tour of the island of O'ahu. Ascending Kealakīpapa from Maunalua, Queen Emma and a party of nearly 200 people reached Makapu'u and descended the cliff for Waimānalo. John A. Cummins, owner of the Waimanalo Ranch and Sugar Company, hosted Queen Emma. Upon reaching the Makapu'u bluff, overlooking Waimānalo, Emma's party was greeted by torch-bearing "knights," and escorted down the pali to the coast of Waimānalo, and the four mile ride to Mauna Rose, Cummins' residence and seat of his cattle and sheep ranch and sugar plantation operations.

One of the entertainments presented for the Queens' pleasure was the he'e pu'e wai (surfing in the stream wash) of Pūhā River. The men made a twenty-foot wide opening in the pu'e one (sand bar or spit), that blocked the mouth of Pūhā. The water is said to haven rushed out of Pūhā at a rate of some thirty knots. Only two men and two women dared ride the surf out into the sea. This event was evidently once commonly practiced in the vicinity, but by the time of Queen Emma's visit, it was fairly rare. The Queen was very delighted by the show of bravery and skill in the he'e pu'e wai, and rewarded the "surfers" handsomely. (cf. Pacific Commercial Advertiser, April 25, 1874; and J.A. Cummins in Mid Pacific Magazine, Vol. VI, No. 3 Sept. 1913:233-243).

In 1939, Mary Kawena Pukui and Kenneth Emory of the Bishop Museum conducted site visits and oral history interviews with Charles Alona and Kealohanui Alona (grandparents of Niki Hines and Alika Ahuna — Waimānalo residents). The family of Alika Ahuna still maintains its' family land on the shore of Waimānalo, a short distance east of Pāhonu fishpond. Among the historical accounts recorded by the Alona were the following narratives (cited in the B.P. Bishop Museum, Ethnological Notes):

Pūhā

The stream in Bellow's Field is Pu-ha. [C. Alona; September 14, 1939]

Pā-honu

Pa-honu, an enclosure for turtles that was once located back of Mrs. Wall's present home.

There was once a chief who was so fond of turtle meat that he ordered a sea wall built to keep captured turtles from escaping. Every turtle caught by a fisherman was put into this enclosure. No one else was allowed to partake of turtle meat under penalty of death. No one dared to eat turtle as long as the old chief lived. [C. Alona; September 14, 1939]

Summers and Sterling (1978) note that the old E.O. Wall residence is in the area of 41-505 Kalanianaole Highway. They also reported that, "The pond wall which could be seen in the late 1960's was a restoration built on the original (?) foundation." (Sterling and Summers 1978:249)

Kaakaupapa

Next to Pahonu is Kaakaupapa. The old saying of this place was, "Papa ke kanaka, papa ke akua, papa na mea a pau" — "Multitudes of people, multitudes of gods, all in multitudes." [C. Alona; September 14, 1939]

Puu-kilo-i'a (Hill-for-the-sighting-fish)

East of Pu-ha, beyond a lone pine tree on the shore is Puu-kilo-i'a. Here a person stood to see whether a school of fish could be seen and from here he signaled to the men of the canoes where to go in order to surround the schools with the net. [C. Alona; September 22, 1939]

Archaeology of O'ahu (1933)

Among the sites recorded near or along the shore of Waimānalo, by J.A. McAllister were:

Site 383. Haunuaniho, near the sea side of the Mill, Waimanalo.

A small hill said to have been famous in olden days as a place of refuge (puuhonua). It is said that as soon as one side knew that there was no hope for victory in the battle being fought , the wisest course was to flee as rapidly as possible to Haunuaniho, for all the chiefs recognized the sacredness of this hill and the lives of those who reached this elevation were spared. [McAllister 1933:191]

Site 383-A. Pahonu, adjacent to the E.O. Hall land, Waimanalo.

Pahonu is said to be the name of a pond 500 feet long and approximately 50 feet wide. A line of stones, submerged at high tide, but visible at low tide, indicates its former extent. Turtles are said to have been kept in the pond for use of the alii. [McAllister 1933:192]

Site 384. The so-called "Kaupo Village," Waimanalo.

Because of the local interest in this "deserted village" the area has been set aside as a public park. This site has probably neither the great antiquity nor the importance commonly attributed to it. In its prime, it consisted of a few fishing huts, a fishing shrine (koʻa), and possibly a small heiau. Most of the structures appear to have been built in recent times. As a public park this land is continually used by campers, which accounts for many poorly constructed windbreaks near the beach and the absence of rafters, boards, and other inflammable material, as firewood is at a premium here. Mr. Chalmers, Manager of the Waimanalo Sugar Company, was told years ago that the village was built about 1853 during the disastrous smallpox epidemic, when the Hawaiians attempted to escape the quarantine. On the official map of the Bishop Estate the area is indicated as "Koanapou." "Kaupo" is undoubtedly incorrect.

Waimānalo: Records of Native Land Use in the middle of the Nineteenth Century

In pre-western contact Hawai'i, all land and natural resources were held in trust by the high chiefs (ali'i 'ai ahupua'a or ali'i 'ai moku). The use of lands and resources were given to the hoa'āina (native tenants), at the prerogative of the ali'i and their representatives or land agents (konohiki), who were generally lesser chiefs as well. Over generations, the native residents who lived upon and were sustained by the land (extending from the fisheries to mountains), developed an intimate relationship (kinship) with the land which has been recorded in traditions of creation and Hawaiian genealogical accounts.

The Hawaiian system of land tenure was radically altered by the Māhele 'Āina (Land Division) of 1848, which evolved in response to the growing Western population and business interests in the island kingdom. The Māhele (division) defined the land interests of Kamehameha III (the King), the high-ranking chiefs, and the konohiki. As a result of the Māhele, all land in the Kingdom of Hawai'i came to be placed in one of three categories: (1) Crown Lands (for the occupant of the throne); (2) Government Lands; and (3) Konohiki Lands (Chinen 1958:vii and Chinen 1961:13). Laws in the period of the Māhele record that ownership rights to all lands in the kingdom were "subject to the rights of the native tenants;" those individuals who lived on the land and worked it for their subsistence and the welfare of the chiefs (Kanawai Hoopai Karaima... {Penal Code} 1850:22). The 1850 resolutions in "Kanawai Hoopai Karaima no ko Hawaii Pae Aina," authorized the newly formed 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, Lahaina, and Hilo (cf. Penal Code, 1850:123-124; and Chinen 1958:29). After native Hawaiian commoners were granted the opportunity to acquire their own parcels of land through the Māhele, foreigners were also granted the right to own land in 1850, provided they had sworn an oath of lovalty to the Hawaiian Monarch (Kame'eleihiwa 1992:300).

In order to receive their awards from the Land Commission, the hoa'āina were required to prove that they cultivated the land for a living. They were not permitted to acquire "wastelands" (e.g. fishponds and wetlands) 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 (ibid.). The lands awarded to the hoa'āina became known as "Kuleana Lands." All of the claims and awards (the Land Commission Awards or LCA) were numbered, and the LCA numbers remain in use today to identify the original owners of lands in Hawai'i. By the time of its closure on March 31, 1855, the Land Commission issued only 8,421 kuleana claims, equaling only 28,658 acres of land to the native tenants (Kame'eleihiwa 1992:295).

The Register and Testimony books of Māhele provide important documentation on residency, land use and water use in Waimānalo, in a period when traditional use was still somewhat intact. The following narratives (including kuleana parcels in the coastal, midland, and valley regions) are excerpted from the larger collection of documentation provide by native tenants of Waimānalo (most kuleana locations coincide with parcels depicted on Register Map No. 2681 and the RPTO District sheet of 1927).

Land Tenure: A Summary of Documentation Recorded in the Māhele 'Āina of 1848

The documentation (recorded by 81 claimants for 119 parcels of land) includes descriptions of both wetland and dryland cultivation in regions extending from near shore to the inland valleys and across the Ko'olau Poko ridge into Kuli'ou'ou, Maunalua, Awawamalu, and (Keala-) Kïpapa, which were once considered 'ili land parcels of Waimānalo (though they are now attached to the Kona District of O'ahu). The Native Register (NR) testimonies of 1848 list more than <u>315 lo'i kalo</u> (irrigated taro pond fields) in various phases of operation; the Foreign Testimony records (described two to four years later) list more than <u>815 lo'i kalo</u> in use at Waimānalo (for a list of other cultivated crops identified in testimonies see the index below). While the records reviewed, identified only a few 'auwai (irrigation channels) in text, the occurrence of 'auwai, which would have supplied water to hundreds of lo'i kalo that were beyond the kahawai (streams) would have been an important part of the cultural landscape and water use system of Waimānalo.

There were at least eight fishponds (loko, loko i'a, or pu'u one) identified in testimonies as well. They occurred in the area extending from Pūhā to the area below the present-day Kalaniana'ole Highway. Additionally, both the he'e (octopus) and uhu (parrot fish) were claimed as the i'a kapu (restricted fish) of named individuals.

Index of Selected Native Land use Terms:

Ahupua'a	A native land division extending from off-shore fisheries to the uplands, generally the mountain peaks.
'Alani	Orange trees.
'Auwai	Irrigation channel.
'Awa	Piper methysticum (an important Hawaiian plant), used both for ceremonial observances and social activities.
ʻlli	A narrow strip of land, a land management unit within the ahupua'a
Kahawai	Stream or creek
Kalo	Taro.
Konohiki	Land overseer and/or the individual who received the ahupua'a in the Māhele.
Kula	An open flat land region; when claimed in individual awards, the kula is generally an area of dryland cultivation (e.g. kula 'uala)
Lauhala	Pandanus trees (also hala).

Lele	A portion of an 'ili land unit which is separated by another land unit or feature (enabling the tenant to have land use resources in varying environmental zones).
Loʻi Loko or	Taro pond fields, those either fed directly by a neighboring stream or spring, or fed by a system of irrigation channels
	Fishpond.
Mai'a	Banana trees.
Māla	A dryland garden.
Μο'ο	A strip of land (a land management unit within the ahupua'a), generally smaller than an 'ili, and used for dry land cultivation.
Pā hale	House lot (71 total house sites were claimed in the Foreign Testimonies).
'Uala	Sweet potatoes.
ʻUlu	Breadfruit trees.
Wauke	Broussonetia papyrifera (the paper mulberry), used to make kapa (bark cloth).

Kula Kahakai (near-shore parcels) in Pūhā vicinity (Native Register)

L.C.A. Number and Parcel(s)	Claimant/ Awardee	When/How Obtained	Crops	Type of Land / Location	Reference
4500:2	Keliimama	In time of Kahalaia	kalo	In land of Kaina: 1 moʻo 1 kula 1loʻi	NR4:311
				In land of Kaahuwalu: 2 loʻi	
			mai'a	In land of Kauahi: 1 kula 1 pā hale	
4501:2,3	Kaahuwalu	In time of Manuia	kalo	In land of Kealakai: 1 moʻo 1 kula, from sea to upland	NR4:312
			kalo	In land of Mahoe: 2 Ioʻi	
			kalo	In land of Kaina: 1 loko i'a 1 lo'i	
			kalo	In land of Kihokea: 1 Ioʻi	
4502:1	Piia	In time of Lono From Keliimama	kalo	In 'ili of Ahiki: 1 mo'o that runs to kula In land of Kauahi: 1 kula 1 pā hale	NR4:312
4503:3	Mauae	In time of Lono	kalo	In land of Keliimama: 6 loʻi	NR4:312

Kula Kahakai (near-shore parcels) in Pūhā vicinity

L.C.A. Number and Parcel(s)	Claimant/ Awardee	When/How Obtained	Crops	Type of Land / Location	Reference
6976	Kaluahinenui	In time of Kinau, from Kaupena		In 'ili of Kahikiea: 1 loko i'a 1 kula 1 upland 2 of above are named Imihia and Kalepeamoa 1 loko named Kukalaua	NR 5:410
		From Puniwai From Kawaihalau From Leleuwouwo From Kanehoalani From Makalae From Kumaunahina	kalo kalo kalo	2 loʻi 1 loʻi 1 māla 2 māla 1 māla 3 loʻi	
8612:1	Kanehoalani	given by parents In time of Kamehameha I		In 'ili of Kamokulama: upland named Kapupuu kula named Pukalua shore fishery named Apuakea	NR 4:368
		In time of Lono to this time of Poki. Kuihelani is the landlord		In 'ili of Poki at Puahia: 1 mo'o 1 kula 1 pā hale	
			kalo	In 'ili of Kaualii at Panene: 1 Io'i	
			kalo	In 'ili of Naeole at Puamanao: 2 Io'i	

L.C.A. Number <u>and Parcel(s)</u> 4067:1,2	Claimant/ <u>Awardee</u> Kahihina	When/How Obtained From Keliimama From Kaio. Got all 3 parcels in the time when M. Kekuanaoa made a circuit of the island	Crops	<u>Type of Land / Location</u> 1 moʻo 1 kula 1 mountain area	Reference NR 4:220
4492:2,3,4,6	Makai	From Kehau In time of Kaiakoili	kalo kalo hala	In the land of Mana, Pouli: 4 Io'i 1 kula In the land of Kaanaana: 4 Io'i (1 weed grown) 1 kula (upland) 1 pā hale In land of Kamahalo: 1 hala grove In the land of Kealakai: 1 stream	NR 4:309
4493:1,2	Mana	In time of Kaiakoili Kawaa is konohiki	kalo kalo	In the land of Kapouli: 8 lo'i (5 of which are overgrown with weeds) In land of Paneonea: 1 kula 1 pā hale In land of Keliimama: 4 lo'i In land of Kamahalo: 1 loko	NR 4:310
4497	Kahoowaha	In time of Kahalaia	kalo kalo hala	In the land of Kaakau: 4 loʻi In the land of Ihu: 2 loʻi In the land of Kamahalo: 1 hala grove 1 pā hale	NR 4:311

L.C.A. Number and Parcel(s)	Claimant/ Awardee	When/How Obtained	Crops	Type of Land / Location	Reference
4498	Kaio	In time of Manuia	kalo	In the land of Kealakai: in Kouhou 1 moʻo In the land of Mahoe: 2 loʻi 1 upland kula named Kalamea In the land of Kehau: 1 kula	NR 4:311
4499:1	Kalauoho	In time of Kalolo	kalo	In the land of Kawaihalau: 2 moʻo In ʻili of Puuhala: 1 kula (sea to upland) 1 pā hale claim	NR4:311
4504-B & B:1	Namakahiki	In time of Kalolo		In the land of Keliimama: 1 moʻo 1 kula 1 pā hale In the land of Kalauoho:	NR4:311
			kalo	1 loʻi In the land of Kaanaana: 1 loko In the land of Mahoe: 1 kula	
			kalo	1 loʻi In the land of Amokihi: 1 kula In the land of Kumaunahina:	
			kalo	2 loʻi In the land of Puniwai: 1 moʻo 1 kula 1 pā hale	

L.C.A. Number	Claimant/				
and Parcel(s)	Awardee	When/How Obtained	Crops	Type of Land / Location	Reference
10214:1,2	Makaalaea	From Kaoao		In the 'ili of Kailiili 2:	NR 4:526
			kalo	5 loʻi	
		From Amokihi all in time when Kekuanaoa made circuit of the island	uala	1 māla	

L.C.A. Number and Parcel(s)	Claimant/ Awardee	When/How Obtained	Crops	Type of Land / Location	Reference
235 B or 2637	Kaalehu	In time of Lono	0.000	In 'ili of Waikupanaha next to Keaniani	NR 3:577
			'uala	2 māla 'uala in kula of Paka	
			'uala	1 māla 'uala at Kamoku	
			'uala	2 māla 'uala at Mooiki	
				1 pā hale at Pakaikai belonging to Pahoni	
			hau	1 hau tree at Hahakea	
2356	Kekoanui	In time Lono		In 'ili of Kaniku:	NR 3:464
		From Mauae		1 moʻo-below Kaoao	
2561	Nahinu	From Kumuhau		In 'ili of Kaaukai:	NR 3:556
		In time of Lono	kalo	some loʻi in Kamakainoa	
				In 'ili of Kaulukanu:	
		Poki is the konohiki	kalo	2 loʻi in moʻo of Pu	
				In 'ili of Kekuanaoa:	
			'awa	1 māla 'awa at Mole in the uplands	
2591	Puhau	From Ihu	kalo	5 loʻi	NR 3:568
			kalo	2 fallow loʻi	
		From Kaiwikalua	kalo	4 loʻi: 3 loʻi in land of Mau	
			kalo	1 loʻi in land of Kekoanui	
		From Kahemolele		1 cultivated kula	

Poki is the konohiki	1 moʻo kula
	1 kula at Waiahiiaka
In time of Lono	1 pā hale

L.C.A. Number and Parcel(s)	Claimant/ Awardee	When/How Obtained	Crops	Type of Land / Location	Reference
2593	Pu	From Poki		In 'ili of Kauluhonu under Kïpapa of the ahupua'a.	NR 3:569
2641:1	Holau	All in the time of Lono	^t uele	In 'ili of Pohakunui: 1 moʻo In 'ili of Maunalua: 1 moʻo in lele of Keawawa, Kona In 'ili of Wawamalu: 1 ctaon māla (upla namod Obua	NR 3:578
		Poki is Konohiki	ʻuala	1 steep māla 'uala named Ohua In 'ili of Kaeo:	
			'uala	māla 'uala In 'ili of Kekupuohu:	
			kalo	1 loʻi at Kapu ⁱ ki	
2648:1,2	lli	From Kahoohanohano		1 'ili of Kaulukanu 1 lele at the sea of Keoneula 1 māla in upland of Paoi, moʻo of Kahi	NR 3:579
2649:1,2	Kapule	From Kalua	kalo 'uala kalo	In 'ili of Kumuhau: 4 lo'i 1 māla 'uala In land of Kealoha: 1 pā hale In land of Kaholo: 1 lo'i	NR 3:580
5875:1	Kaaukai	From Poki	kalo kalo	1 loko named Kaweloloko which has 4 small loʻi adjoining it with 3 other loʻi inland of Kiimakaiwa	NR 5:170
5883	Kahiona	In time of Lono until the time of Poki		1 moʻo named Paoi? In ʻili of Puahia:	NR 5:173

			kalo	1 upland place named Kawaiki 1 loʻi at Kaweloloko	
5949	Paeole	From Poki but caring for it In Poki's name	kalo	14 loʻi close to Hoonee 1 loʻi at Hoonee or named Hoonee	NR 5:187

L.C.A. Number and Parcel(s)	Claimant/ Awardee	When/How Obtained	Crops	Type of Land / Location	Reference
7085	Kalua for Haloi	From Kaupena in 1846	kalo	In 'ili of Kumuhau 3: 7 Io'i 1 pā hale In 'ili of Kahikiea: 2 mo'o; 1 kula adjoins them	NR 5:276
10207	Molea	From Kawahalei in 1845 From Mauae	kalo kalo kalo	In 'ili of Kumuhau 2: 3 lo'i poalima 8 lo'i 1 pā hale 1 lo'i	NR 4:524
10392	Nohopono	From Mauae	kalo	In 'ili of Kaoao: 6 lo'i 1 kula 1 pā hale	NR 4:547
		From Puoa who lives under them in time when Kekuana made circuit around island		1 loʻi	
10393	Napuuone	From Molea; who he lives under	kalo	In 'ili of Kumuhau 2: 8 lo'i 1 pā hale	NR 4:547
10747	Puoa	From Mauae	kalo uala	In 'ili of Kaoao: 6 Io'i an 'auwai 1 kula 'uala	NR 4:584
		From Paeole	kalo	1 loʻi at Hoona	

From Haole under whom he lives

1 pā hale

Kula uka (Inland slopes) Along North Branch of Waimānalo Stream to Back of Pali

L.C.A. Number and Parcel(s)	Claimant/ Awardee	When/How Obtained	Crops	Type of Land / Location	Reference
2635	Kahunanui	In time of Puhiea		In 'ili of Kinimaka in Ohea:	NR 3:576
			kalo	1 loʻi in moʻo of Hikaalani	
			kalo	4 loʻi in moʻo of Mahu	
			kalo	1 loʻi in moʻo of Kahapuna	
2645:1,2	Paumano			In moʻo of Kukaniaua:	NR 3:579
			kalo	3 loʻi	
				In land of Puniwai:	
			kalo	4 loʻi	
			kalo	5 loʻi at Pawaʻa	
				In 'ili of Kinimaka:	
			'awa	1 māla 'awa	
				In moʻo of Pulu in ʻili of Pohakunui at Mole:	
			'awa	1 māla 'awa	
3207:1	lhu	In time of Lono Kawelookalani is konohiki	kalo	In 'ili of Waikupanaha along road of Keaniar 2 lo'i in land of Kaniku 1 mo'o at Mooiki 1 pā hale at the shore In land of Kaalehu:	ii: NR 4:121
			kalo	3 loʻi	
3265:1	Lauheaiku (Kauheaiku)	In time of Lono	kalo 'uala wauke	In land of Kaalehu: 1 moʻo In land of Mauae: 2 loʻi In ʻili of Mooiki: 3 māla ʻuala 1 māla wauke	NR 4:123
				In land of Kaina: 1 māla 1 pā hale	

3575:1	Kalauao	From Lono		In land of Ihu:	NR 4:141
			kalo	3 loʻi	
				In land of Paukeaho:	
			kalo	1 loʻi	
				1 pā hale	

Kula uka (Inland slopes) Along North Branch of Waimānalo Stream to Back of Pali

L.C.A. Number and Parcel(s)	Claimant/ Awardee	When/How Obtained	Crops	Type of Land / Location	Reference
5346	Pahulu	In time of Lono Kaaukai is konohiki	,	In the Ahupua'a: 1 mo'o In mo'o of Nahu at Ohea:	NR 5:42
			mai'a 'ulu	1 māla mai'a 1 māla 'ulu	
5390:1,2	Kikaalani (Hikaalani)	Puniwai is konohiki	mai'a	In 'ili of Ohea: 3 mo'o 3 kula In mo'o of Mahu: 4 māla mai'a	NR 5:50
		Kaaukai is konohiki	orange	In Ahupua'a: 1 kula pā hale 1 orange tree garden (māla 'alani)	
		Oneanea is konohiki In time of Lono 2nd claim in 1844	kalo	at Kaelepulu: 2 loʻi 1 pā hale	
7088:1,2	Kahopuna		kalo	In 'ili of Wailea, mo'o of Kaulu: 7 Io'i 1 small kula	NR 5:276
		From Puniwai	kalo	In moʻo of Kaohe: 13 loʻi 1 kula 1 pā hale In Puniwai's moʻo:	
			kalo	2 loʻi	

From Puniwai, Mahu, & Iao		3 māla
From Kuahili	kalo	4 loʻi
From Ihu	kalo	4 loʻi
all in time of Kinau		

Kula uka (Inland slopes) Along North Branch of Waimānalo Stream to Back of Pali

L.C.A. Number and Parcel(s) 7089:1,2	Claimant/ <u>Awardee</u> Kaiwinui	When/How Obtained From Puniwai	Crops kalo kalo	<u>Type of Land / Location</u> 1 moʻo named Opuohua 2 large loʻi 15 small loʻi 1 small kula 1 pā hale	Reference NR 5:277	
		From Keoni	kalo	3 loʻi		
		all in time of Kinau		8 cultivated māla		

Kula uka (Inland slopes) Along Southern Branch of Unnamed Northern Stream to Back of Pali

L.C.A. Number and Parcel(s)	Claimant/ Awardee	When/How Obtained	Crops	Type of Land / Location	Reference
2643:1,2	Maaha			1 'ili named Hikini: Kahuaiki is the upland, Kaiki is the sea	NR 3:578
8611:2	Kaholo	Got it in time of Lono and held it until the time of Poki. Kuanaoa is the konohiki		1 'ili named Kuaihinale and the upland named Olomana	NR 4:367
10216	Mahu	From Puniwai in time of Kinau	kalo	In 'ili of Wailea: 1 mo'o named Kawaielieli 30 lo'i 1 kula 1 pā hale In ahupua'a of Kiimakaiwa:	NR 4:526
			kalo	22 loʻi 2 māla	

L.C.A. Number and Parcel(s)	Claimant/ Awardee	When/How Obtained	Crops	Type of Land / Location	Reference
3576:1	Kalawaianui	Got it in 1846		At Kealakaalaea: 2 moʻo In ʻili of Mooiki: 1 kula In land of Ihu: 1 pā hale In ʻili of Pohakunui: 1 kula	NR 4:141
3578:1	Kauowai	Poki is Konohiki	kalo	In 'ili of Kamokulama in land of Kanehoalani 8 lo'i 1 kula	NR 4:141
		From Lono	'uala	1 kula 'uala 1 pā hale	
10215	Mauae		kalo	3 'ili: Kaoao, Paka & Pokaa on these 'ili: 8 lo'i of his own In 'ili of Kaoao and Paka: 5 poalima	NR 4:526
			(fishery)	2 kai kapu (restricted fisheries) named Awaawamalu and Paka; uhu (parrot fish), the i'a kapu (restricted fish) of Awaawa he'e (octopus) the i'a kapu of Paka	
				Awaawa has 3 kula from ascent of Makapuʻu to Ohua, these are kulas of Kaoao	
		From Kaniku at time Kekuanaoa made circuit around the island		Pakalua and Kukui are the kulas of Paka	
		From Poki; got it in the time of Puhiea and lives	kalo	In 'ili of Pokaa: 1 Io'i poalima	

Kula (Flatland) Region in Vicinity of old Waimānalo Mill (above present-day Kalaniana'ole Highway)

under them

1 kula 1 pā hale

Kula uka (Inland slopes) Along Southern Branch of Unnamed Stream to Back of Pali

L.C.A. Number and Parcel(s)	Claimant/ Awardee	When/How Obtained	Crops	Type of Land / Location	Reference
2638	Kepaa	From Lono		1 moʻo	NR 3:577
		Poki is Konohiki		1 kula named Kaliliokii which is adjacent	
2640	Naili	in time of Lono		1 moʻo at Pohakunui In ʻili of Poki: 1 kula In moʻo of Maluihi:	NR 3:577
			kalo	3 loʻi	
				In 'ili of Kekupuohi:	
			'awa	1 māla 'awa in upland of Kapuiki	

MISCELLANEOUS CLAIMS (NOT AWARDED)

L.C.A. Number <u>and Parcel(s)</u> 2639	Claimant/ <u>Awardee</u> Kumaunahina	When/How Obtained Got it from father who got it in time of Kamehameha I (registered Dec. 31, 1847)	Crops	<u>Type of Land / Location</u> In 'ili of Kinimaka at Wailea at Paleo 1 pā hale 1 kula 1 mo'o	Reference NR 3:577
			kalo kalo	In 'ili of Kinimaka at Ohea: 1 lo'i In 'ili of Waikupanaha in mo'o of Ihu: 2 lo'i	
2644	Kainakaalua	In time of Puhiea (registered Dec. 27, 1847)	kalo kalo	In moʻo of Hikaalani: 9 loʻi (2 of which are his) In ʻili of Kaalo In moʻo of Pahulu: 2 loʻi	NR3:578
2646	Kapalu	In time of Lono (registered Dec. 31, 1847)		In 'ili of Kaupena: 1 mo'o in Puha In 'ili of Ohea:	NR 3:579

2 loʻi at Pukani In ʻili of Kinimaka: 1 pā hale at Wailea

Miscellaneous Claims (not awarded)

L.C.A. Number <u>and Parcel(s)</u> 2647	Claimant/ <u>Awardee</u> Pulehu	When/How Obtained From Kuakini (registered Dec. 27, 1847)	Crops	<u>Type of Land / Location</u> In 'ili of Puha: 1 mo'o named Kaieie	Reference NR 3:579
		From Kuanaoa		1 'ili at Kailiili with a loko	
		From Kaupena		1 'ili named Kahikiea	

kalo

Kula Kahakai (near-shore parcels) in Pūhā vicinity (Foreign Testimony)

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
4500:2	Keliimama	from Kanona Mauae (w)	in time of Kahalaia	kalo	in ['] ili of Ahiki: 4 lo'i 1 pā hale bounded by a kahawai	FT11-Pt. 1:193
4501:2,3	Kaahuwalu	from ancestors		kalo	in 'ili of Puha: 12 lo'i 1 loko i'a 1 pā hale	FT11-Pt. 1:196
				hala	1 plot of lauhala trees	
4502:1	Piia	from Lono	in time of Kinau (prior to 1839)	kalo	in 'ili of Ahiki: 5 lo'i 1 pā hale bounded by a kahawai	FT11-Pt. 1:194
4503:3	Mauae	from his father	in time of Kalola (prior to 1791)	kalo	in 'ili of Ahiki: 6 lo'i 1 pā hale bounded by a kahawai	FT11-Pt. 1:195
8612:1	Kanehoalani	from ancestors		kalo	23 loʻi	FT11-Pt. 1:198

1 pā hale bounded by a kahawai

Kula (flatlands) below Kalaniana'ole Highway

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
234 D	Makaula	from Kawaihalau	1846	kalo	in ⁱ ili of Kahuila: 6 loʻi 1 pā hale	FT11-Pt. 1:202
234 E	Mano	from Kaawa	1846	kalo	in 'ili of Mahailua: 6 lo'i 1 pā hale	FT11-Pt. 1:206
234 N	Puana	from Kawaihalau Kawaihalau (w)	in time of Kalola	kalo	in 'ili of Nonolio: 3 lo'i 2 pā hale bounded by a kahawai	FT11-Pt. 1:231

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
234 O:1	Upena	from Lono Kanehoalani (w)	in time of Kinau (prior to 1839)	kalo	in ʻili of lole: 18 loʻi 1 pā hale	FT11-Pt. 1:233
234 Q	Holae	from Kuhia Kanihonui (w)	in time of Kinau (prior to 1839) had it until death in 1848 widow (Haole) is h	kalo neir	in 'ili of Kaee: 6 lo'i 1 pā hale	FT11-Pt. 1:210
234 S	Wahineopunui	from Lono	in time of Kinau (prior to 1839)	kalo	in 'ili of Makakalo: 5 lo'i 1 pā hale bounded by a kahawai	FT11-Pt. 1:232
234 U	lole	from Kaili Hikaalani (w)	in time of Kinau (prior to 1839)	kalo	in ʻili of Kaulukanu: 12 loʻi 1 pā hale	FT11-Pt. 1:226

234 V	Kiha	from Kuhia Kanihonui (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Kaee: 7 lo'i 1 pā hale	FT11-Pt. 1:210
234 W & W:1	Kealakai			kalo	in 'ili of Puha: 6 lo'i 1 pā hale	FT11-Pt. 1:207
234 X	Kawaihalau	from Puana Puana (w)	in time of Kamehameha I (prior to 1812)	kalo	in 'ili of Nonokio: 7 lo'i 1 pā hale	FT11-Pt. 1:202
234 Y:1	Kalawaia	from Kinau (prior Hoaole (w)	to 1839)	kalo	in 'ili of lole: 5 lo'i 1 pā hale	FT11-Pt. 1:203

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
235 E	Kukiahu	Kanehoalani (w)		kalo	in ⁽ ili of Makakalo: 5 loʻi 1 pā hale	FT11-Pt. 1:231
235 I	Kalili	from Piimoku Kauwa (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Kapuiki: 4 lo'i 1 pā hale	FT11-Pt. 1:213
234 L	Kauwa	from Kahalaia (prior to 1826)	in time of Kinau	kalo	in 'ili of Mahailua: 5 lo'i 1 pā hale	FT11-Pt. 1:206
235 O	Kaakau	from Iao Kanihonui (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Kumuhau: 14 lo'i 1 pā hale	FT11-Pt. 1:208
4067:1,2	Kahihina	from Keliimama Kamahalo (w)	since 1846	kalo	in 'ili of Ahiki: 6 lo'i 1 pā hale	FT11-Pt. 1:200

4492:2,3,4,6	Makai	from Kaanaana Kaleone (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Kapouli: 9 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:191
4493:1,2	Mana	from Kaiahoili Piia (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Kapouli: 11 lo'i 1 pā hale bounded by a kahawai	FT11-Pt. 1:191
4497	Kahoowaha	from Keoni (foreigner) Kamahalo (w)	in time of Manuia had it till death in 1849. Koahou, his son is heir	kalo hala	in 'ili of Kuliouou, Waimanalo: 6 lo'i 1 pā hale in 'ili of Puahia: 1 plot of Lauhala	FT11-Pt. 1:197
4498	Kaio			kalo maia & 'uala	in 'ili of Puha 6 Io'i 1 kula	FT11-Pt. 1:175

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
4499:1	Kalauoho	Makaula (w)	in time of Kinau (prior to 1839)	kalo	in ⁽ ili of Nonokio: 6 loʻi 1 pā hale bounded by a kahawai	FT11-Pt. 1:192
4504 B & B:1	Namakahiki	from his father	in time of Kalola	kalo	in 'ili of Ahiki: 6 lo'i bounded by Puha kahawai in 'ili of Mooiki:	FT11-Pt. 1:195
				kalo	1 loʻi 1 pā hale	
10214:1,2	Makaalaea	from Kaoao Keohonui (w)	1846	kalo	in ʻili of Kailiili: 10 loʻi bounded by a kahawai 1 pā hale	FT11-Pt. 1:216

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
234 G	Nueku	from Kekuanaoa Haole (w)	1840	kalo	in 'ili of Kapuiki: 5 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:234
234 K:1	Piimoku	from Kekupuohi Mano (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Kapuiki: 17 loʻi bounded by a kahawai	FT11-Pt. 1:211
234 L or 3391	Paukeaho	from Mauae	1846-1849 Konohiki took it away; claimant was fined. Worked on fine but didn't go to poalima (taxation) days	kalo	in 'ili of Kaulukanu: 5 lo'i bounded by a kahawai 1 pā hale bounded by a sea beach	FT11-Pt. 1:216
234 R:1,2	Haole	from Lono Nueku (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Keone: 4 lo'i (on stream) 1 pā hale	FT11-Pt. 1:230

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
235 B or 2637	Kaalehu	from ancestors Piimoku (w)		kalo	in 'ili of Waikupanaha: 9 loʻi bounded by a kahawai 1 pā hale in Pahonu at beach	FT11-Pt. 1:171
2356	Kekoanui	from Kahauna	in time of Kinau (prior to 1839)	kalo	in 'ili of Kaoao: 4 lo'i bounded by a kahawai in 'ili of Kaulukanu: 1 pā hale	FT11-Pt. 1:183
2561	Nahinu	from Kuaana Piimoku (w)	1839	kalo	in 'ili of Kaulukanu: 2 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:177

2591	Puhau	from Lono Pulu (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Waikupanaha: 12 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:189
2593	Pu	from Kekuanaoa Kaholo (w)	1846	kalo	in 'ili of Kaulukanu: 4 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:180
2641:1	Holau	from Lono Keoni (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Pohakunui: 7 lo'i bounded by a kahawai	FT11-Pt. 1:224
2648:1,2	lli	Kaalehu (w)	in time of Liholiho (prior to 1824)	kalo	in 'ili of Kaulukanu: 2 lele 26 lo'i 1 pā hale	FT11-Pt. 1:169
2649:1,2	Kapule	1846	from Kalua	kalo	in ʻili of Kumuhau: 4 loʻi bounded by a kahawai 1 pā hale	FT11-Pt. 1:170
			from Kaholo	kalo	in ʻili of Kaoao: 1 loʻi	

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
5875:1	Kaaukai	from Poki Piimoku (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Kaweloloko: 14 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:173
5883	Kahiona	from Kapau Nahinu (w)	1846	kalo	in 'ili of Puahia: 7 lo'i 1 pā hale	FT11-Pt. 1:185
5949	Paeole	1846	from Poki Kekuanaoa (w)	kalo	in 'ili of Hoonee: 12 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:177
7085	Kalua	from Kaupena Kekuanaoa (w)	1846 until death in 1848	kalo	in 'ili of Kumuhau: 7 lo'i bounded by a kahawai	FT11-Pt. 1:184

			widow- Kahaoao & son Holoi are he	eirs	1 pā hale	
7087	Kealoha	from Kinau (prior to 1839) Haole (w)	in time of Kinau until death. Nania, daughter is heir	kalo	in 'ili of Kaoao: 14 lo'i 1 pā hale bounded by a kahawai	FT11-Pt. 1:219
7090	Kekuanaoa	from Kekuanaoa Paeole (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Kumuhau: 12 lo'i 1 pā hale	FT11-Pt. 1:187
8002	Ahia	from Kinau Kanehoalani (w)	(prior to 1839)	kalo	in 'ili of Pukani: 7 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:219
10392	Nohopono	from Kekuanaoa Nahinu (w)	1846	kalo	in 'ili of Kaoao: 6 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:184
10393	Napuuone	from Moolea Kaholo (w)	1846	kalo	in 'ili of Kumuhau: 8 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:178

.C.A. Number	Claimant/	How Obtained				
and Parcel(s)	Awardee	& Witness	When	Crops	Type of Land and Where	Reference
10747	Puoa	from ancestors			in 'ili of Kaoao:	FT11-Pt. 1:179
		Kekoanui (w)		kalo	6 loʻi bounded by a kahawai	
					1 pā hale	

Kula uka (Inland slopes) Along North Branch of Waimānalo Stream to Back of Pali

L.C.A. Number	Claimant/	How Obtained				
and Parcel(s)	Awardee	& Witness	When	Crops	Type of Land and Where	Reference
234 I	Pahanua	from Lono Kanehoalani (w)	in time of Kinau (prior to 1839)	kalo	in ʻili of Waikupanaha: 4 loʻi bounded by a kahawai 1 pā hale	FT11-Pt. 1:235

234 T	Wahinemaikai	from Kekuanaoa Hikaalani (w)	in time of Lono and Kinau (prior to 1839)	kalo	in 'ili of Luamano: 22 lo'i 1 pā hale	FT11-Pt. 1:223
2635	Kahunanui	from Lono Kapule (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Ohea: 8 lo'i	FT11-Pt. 1:227
2645:1,2	Paumano	from Puniwai Kapule (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Ohea: 5 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:228
3207:1	lhu	from Kawelokalani Naeole (w)	i in time of Kinau (prior to 1839)	kalo	in 'ili of Waikupanaha: 5 lo'i bounded by a kahawai 1 pā hale at beach	FT11-Pt. 1:221
3265:1	Lauheaiku	from Kaalehu Kapuahi (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Waikupanaha: 2 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:226
3575:1	Kalauao	from Puhau Paukeaho (w)	in time of Lono	kalo	in 'ili of Waikupanaha: 9 lo'i bounded by a kahawai 1 pā hale at beach	FT11-Pt. 1:215

Kula uka (Inland slopes) Along North Branch of Waimānalo Stream to Back of Pali

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
5346	Pahulu	from Lono	in time of Kinau	01000	in ahupua'a:	FT11-Pt. 1:190
		Kalaikau (w)	(prior to 1839)	kalo	9 loʻi 1 në bele	
				ʻulu	1 pā hale has 'ulu trees which brother planted	
5390:1,2	Hikaalani	from Lono	in time of Kinau		in 'ili of Ohea:	FT11-Pt. 1:186
		Kuahili (w)	(prior to 1839)	kalo	10 loʻi	
				kalo	15 loʻi 1 në bala havndad by a kabayai	
				orange	1 pā hale bounded by a kahawai 4 orange trees	
7088:1,2	Kahopuna	from ancestors		kala	in 'ili of Ohea:	FT11-Pt. 1:187
		Kuahili (w)		kalo	7 loʻi	

1 pā hale

7089:1,2	Kaiwinui	from ancestors		in 'ili of Ohea and in mo'o of Opuohua:	FT11-Pt. 1:176
			kalo kalo	10 loʻi bounded by a kahawai 3 loʻi	

Kula uka (Inland slopes) Along Southern Branch of Northern Stream to Back of Pali (xxx stream name)

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
234 C:1,2	Kaluhikaua	from Lono Keoni (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Pohakunui: 20 lo'i 1 pā hale	FT11-Pt. 1229
235 D	Kuahili	from ancestors Kaanaana (w)		kalo	in 'ili of Mooiki: 8 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:212
235 OO	Keoni	from Lono Kapule (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Kupuna: 28 lo'i 1 pā hale	FT11-Pt. 1:228

Kula uka (Inland slopes) Along Southern Branch of Northern Stream to Back of Pali (xxx stream name)

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
2643:1,2	Maaha	from ancestors Piia (w)		kalo	in ʻili of Alekini: 7 loʻi bounded by a kahawai 1 pā hale	FT11-Pt. 1:201
8611:2	Kaholo	from Kaaukai Paeole (w)	1846	kalo	in 'ili of Kiimakaiwa: 2 loʻi bounded by a kahawai 1 pā hale	FT11-Pt. 1:178
10216	Manu	from Puniwai Naeole (w)	in time of Kinau (prior to 1839)	kalo kalo	in 'ili of Wailea: 21 lo'i 8 lo'i bounded by a kahawai	FT11-Pt. 1:222

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
234 P	Hoaole	from Kaiouli Kawaauhau (w)	in time of Kahalaia (prior to 1826)	kalo	in 'ili of Kaluapalolo: 25 lo'i 1 pā hale	FT11-Pt. 1:203
234 Z	Kawaauhau	from Ahia Kalawaia (w)	1846	kalo	in 'ili of Kaluapalolo: 19 lo'i 1 pā hale	FT11-Pt. 1:204
3576:1	Kalawaianui	from Hinamoo Paukeaho (w)	1846	kalo 'uala	in 'ili of Kealakaalae: 19 lo'i 1 pā hale at beach 1 'uala field	FT11-Pt. 1:217
3578:1	Kauowai	from Kanehoalani Kalawaianui (w)	in time of Lono	kalo 'uala	in 'ili of Mokulama: 8 lo'i 1 'uala field 1 pā hale at beach	FT11-Pt. 1:217
10215	Mauae	from Puhiea Kawaauhau (w)	1840	kalo	in 'ili of Pokaa: 15 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:174

Kula (Flatland) Region in Vicinity of old Waimānalo Mill (above present-day Kalaniana'ole Highway)

Kula uka (upland plains) Along southern branch of Waimānalo Stream to back of Pali

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
235 C	Kaanaana	from parents Mano (w)		kalo	in 'ili of Mooiki: 17 lo'i bounded by a kahawai 1 pā hale	FT11-Pt. 1:214
234 H	Luahele	from Lono Holau (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Pohakunui: 13 lo'i 1 pā hale	FT11-Pt. 1:230

L.C.A. Number and Parcel(s)	Claimant/ Awardee	How Obtained & Witness	When	Crops	Type of Land and Where	Reference
234 K:2	Piimoku	from Kekupuohi Mano (w)	in time of Kinau (prior to 1839)	kalo kalo	in 'ili of Kapuiki: 7 loʻi bounded by a kahawai 10 loʻi	FT11-Pt. 1:211
234 M	Pulu	from Lono Halulea (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Pohakunui: 16 loʻi	FT11-Pt. 1:237
235 F	Kinolau	from Lono Kapuahi (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Pohakunui: 5 lo'i 1 pā hale at beach	FT11-Pt. 1:232
2638	Кераа	from Poki Keoni (w)	in time of Kinau (prior to 1839)	kalo	in 'ili of Pohakunui: 25 lo'i 1 pā hale	FT11-Pt. 1:225
2640	Naili	from ancestors Kauhalalii (w)		kalo	in 'ili of Pohakunui: 11 lo'i 1 pā hale	FT11-Pt. 1:223
2641:1	Holau	from Lono Keoni (w)	in time of Kinau (prior to 1839)	kalo kalo	in 'ili of Pohakunui: 4 lo'i 3 lo'i bounded by a kahawai	FT11-Pt. 1:224

Kula uka (Inland slopes) Along Southern Branch of Stream to Back of Pali (xxx stream name)

Summary of Two Oral History Interviews at Waimānalo (November 15, 1999)

On November 15, 1999, Kepā Maly conducted two recorded oral history interviews in Waimānalo in conjunction with historical research which coincided with the field work conducted as a part of the Waimānalo-Inoa'ole Drainage Field Study. During the interviews, Lisa Ferentinos (a Waimānalo resident and student of the Waimānalo watershed) assisted Maly in eliciting specific information that would help describe the condition of, and changes in the Waimānalo Watershed in the life time of the interviewees. During the week of November 3rd-7th, Maly developed an oral history questionnaire guide (in consultation with watershed team members) which incorporated selected "watershed" history questions into the standard approach to conducting oral history interviews. That questionnaire (Figure 1) is attached here, as it provides readers with an introduction to the methodology employed during the interviews recorded on November 15th.

Both of the primary interviewees cited below, had worked for Waimānalo Plantation in the period from 1933 to 1946, and are lifelong residents of Waimānalo. The interviewees were Mr. Thomas Lapera (joined by his wife, Lani (Holi) DeCastro-Lapera) and Mr. Masato Yamada (joined by Mr. and Mrs. Joseph Hines).

The interviews include personal family background such as — place of birth; family members; how the interviewees became familiar with sites, features, and history of Waimānalo; detailed accounts of Waimānalo Plantation operations, including land and water use; and historical descriptions of Waimānalo Village. During the interviews, historical maps of Waimānalo (dating from 1880 to 1956) were referenced, and when appropriate, sites and features discussed, were marked at approximate locations on the maps. While the interviews were recorded, full transcripts have not yet been developed, though copies of the recordings were returned to the interviewees for their family collections.

We are greatly indebted to Mr. and Mrs. Lapera, Mr. Masato Yamada, and Mr. and Mrs. Joseph (Nickie Ahuna) Hines, for their willingness to share some of their personal history and recollections of Waimānalo. It is through the experiences of our elders, that we have an opportunity to better understand our natural and cultural landscapes. 'O wau no me ka mahalo nui iā 'oukou a pau!

The following notes are a synopsis of key — land and water use, and watershed — documentation recorded during the interviews. The notes include both direct quotes and paraphrased excerpts from the recorded interviews, and have been arranged so as to tie various thoughts and observations together.

Waimānalo Watershed Resources Oral History Study							
Interviewee–Family Background:							
Name: #:	Phone						
Address:							
Interview Date: Time:to	Location: Interviewer:						
Date of birth?	Where were you born?						
Parents? (father)	(mother)						
Grew up where?	Also lived at?						
Raised by?							
How did you become familiar with the Waim	ānalo streams and ditch/irrigation systems?						
 What changes have you noticed in the streams and irrigation ditches (named / location)? in width and depth of be level; in stream and ditch alignments; original dimensions compared to present; presence of vegetation rather than free flowing water; in access, fishing, gathering 							
Have you noticed changes in the type of secsize of particles (for example graded)							
Have you noticed any changes in aquatic life	e (for example ʻoʻopu, ʻōpae, pua…)?						
Do know of regular maintenance or dredging	g which was done on streams or ditches?						
Have you observed changes in stream (ditcl	h) side vegetation; areas cleared and when?						
 Do you recall years of floods? personal experiences (impacts on property). heard of from elders. 							
Do you have, or know where old photograph	ns of stream and ditch areas could be seen?						
Do you know anyone else that we might s systems?	speak to about the Waimānalo streams or irrigation						

Figure 1. Waimānalo Watershed Resources Oral History Study

Tom Lapera was born at Wailua Plantation in 1919, and moved to Waimānalo in 1931 at the age of nine. L. Lani (Holi) DeCastro-Lapera, born 1937, moved to family land at Waimānalo in ca. 1947. The interview was conducted at their family home in the 'ili of Kumuhau, situated a short distance makai of the Kailua reservoir.

Mr. Lapera's father maintained the Waimānalo Plantation irrigation system in the area extending from the lake (reservoir) below the present-day highway (area of golf course); including the Kailua and Maunawili reservoirs, and the field flume system which extend across the sugar fields towards Makapu'u Point. The younger Mr. Lapera accompanied his father on his daily inspections of the irrigation and field system, and was later employed to do the same for the Waimānalo Plantation Company.

- The water irrigation system was divided into sections and fed into individual fields. The
 water was taken from Maunawili and Kailua reservoirs for the sugarcane which was
 cultivated from the area around Kailua Reservoir to vicinity of present-day Olomana golf
 course. There were also at least three other reservoirs which were maintained at various
 periods of time, these included: the Pūhā vicinity reservoir, makai of the highway and
 present-day golf links; the Tai Li reservoir (near Mokulama Street); and the Wing King
 Reservoir (near the Makapu'u side of Waikupunaha Street).
- There were four or five main streams in Waimānalo, between Kumuhau and Inoa'ole. When there were big rains, every valley on the mountain had a waterfall. The present reservoirs, established by the plantation, acted as catchments which fed the flume and irrigation ditches, and watered the sugarcane fields. (Stream 1–Kumuhau; Stream 2; Stream 3–the Kaikaina-Mekia Street vicinity; Stream 4–Kaulukanu Street; and Stream 5– Inoaole. Mr. Lapera took care of water system from Stream 1–Kumuhau to Kunishige's (Kuni's Shop) at Poalima Street.
- From the pine trees at Bellows (Mel's Market vicinity) to Shriners it was all sand. The Sugarcane was cultivated from the Maunawili mountain side out to the sands, beyond the Bellow's pine trees. After big rains, they had to go in fields and lift up cane, because water overflowed streams, Maunawili Reservoir, and ditches, and ran over sugar cane. In those days (ca. 1930 to 1940s), the streams were kept open. Even after the plantation gave up in the '40s, they had people who came to take care of the flume and reservoirs.
- During the period that Mr. Lapera was growing up, the reservoir would overflow during big rains, but the spillways and ditches were maintained. Later when the plantation closed, and demands for water use were less, but someone would still come up and open the reservoir gates in order to drain the reservoirs and keep them from backing up. It was clean before, but now, because the State didn't upkeep the flumes and gates, all the debris (natural and materials deteriorated from the irrigation flume system) have accumulated and filled up the old flow ways.
- Since 1931 to present there have been changes in rainfall and cycles. Floods before were bigger and more frequent. Over the years, the small ditches have become large rivers with deep cuts. In the 1920s to 1950s, there were still 'ōpae (shrimps) in the streams, and watercress was grown at various locations up stream. The 'o'opu were caught as well, and during the high waters, they would go out to the ocean at Bellows. But now, there are none, I haven't seen 'o'opu for years. I've also seen changes in reefs fronting Bellows. before there were more rocks exposed, now the silt has filled in the papa (reef flats).

- The ocean gets dirtier now after rains than it did when we were young. The river didn't carry as much dirt and debris out to the ocean, as now. There is a real difference in the water. Even the green algae that comes up now in the ocean at Bellows, wasn't there before. We used to catch moi, pāpio, 'ōio, kuahonu. The pua and mullet came up the river behind the runway, now they've all disappeared.
- What's hurting Waimānalo now is that the ditches are not maintained. Before, the ditch system was maintained on a daily basis. The debris was always cleaned away, even after the plantation closed. But later under the State, the Kailua and Maunawili reservoirs, and ditches were not maintained. Because the system is not maintained, the water has returned to following the natural (and some manmade) contours. The water naturally wants to flow the way it did, and because people are living in areas where no one was before, there's plenty pilikia. When the State comes in and does something today, it's just piece meal. But they have to look at the whole system from mountain to the shore.
- The Laperas also recognize that some of the people living in Waimānalo are also contributing to the water flow problems. Some people have no regard for the land, they just go throw trash into, or cover the dry beds, so they get all blocked up. They don't realize that when they constrict the water way, and the storms come the water has to flow somewhere. So education, informing residents about the nature of the Waimānalo water system and land history is important.
- Both Mr. and Mrs. Lapera recommend that the State maintain the reservoirs, spillways, and ditches as a system. They do not feel that the present proposal to just open up the Kailua reservoir (removing a portion of the earthen wall) is a good one. They also asked, "Who will be responsible when their home, and the homes of the Kalamas, Harts and other families are impacted?" They strongly recommended that the State come talk to the old families of Waimānalo, the people who know the land, before they start making all kinds of changes, otherwise they're just going to throw away the money.

Mr. Masato Yamada was born at Waipahu in 1917, moved to Waimānalo in 1922. His father worked for the Waimānalo Plantation as a carpenter, and he built the plantation flumes and worked on various construction projects for the plantation. Mr. Yamada's interview includes detailed descriptions of plantation train system and field work, and Waimānalo Village from ca. 1925 to the 1960s. At the age of 16 (1933), Mr. Yamada went to work for the Waimānalo Plantation Plantation where he became a machinist. He remained on the plantation (one of the last employees) until it was closed and the machinery sold, in ca. 1946.

- All mauka lands were in sugar when he was a youth. Went to the mauka lands above the Maunawili Ditch gather mountain apples, bananas, rose apples. All the land below Maunawili Ditch was sugarcane. In some areas where they could open the land above the ditch they planted sugar, but it was scattered and not irrigated.
- Mr. Yamada noted that we don't have rain like before. Waimānalo used to rain a lot. Almost every year, the rain was regular, but some years, it would rain for three days, three nights. Heavy rain, no stop. Then we'd have floods, and all the sugarcane would fall down. The farmers also lost their papaya trees and plants, because the soil was soft. Get rain for three days and three nights, but we don't have that kind of weather now. When we had a lot of rain, that polo field would be all flooded, the water would go right over the road. But

now, you don't see that for how many years. It used to happen often, but now, you don't see it go over the road that often. We used to get heavier rains. Now, compared to before, is dry.

- When it rained before, the plantation used sent men out by the mouth of the river (at Pūhā) to open the sand. When the big floods came, the water would build up. So the men would go open the mouth and let the water go out to the sea. That's when all the fish came out. All the fish would go out into the ocean, pāpio and all kinds. Āholehole and what ever, all go out. They get in at the same time, but then stuck. They had to open up the stream mouth. The ocean would come all muddy.
- Mr. Yamada also recalled that when he was out in the fields, working on equipment, and the land was plowed, they found evidence of earlier residences. Mostly china like that, probably form older plantation camps, before my time. The Mill was in Kaikaina Street vicinity, on the side of Kahawai Stream. Plantation office was by the present-day Jack-in-the-Box. The pond by the Mill was a cooling pond. Hot water came out of the mill, and the cool water went into the mill. Mill stopped processing sugar around 1946.
- Kailua ditch extended out towards Makapu'u, and sugar was planted almost out to area Shriners; most of Hawaiian Homes was in sugar. The sand-loamy lands of Bellows field and out towards Makapu'u produced high sugar content cane, better than the mauka lands. The dirt ditches were always maintained, the grass and debris cleared. They hana wai (irrigated) the fields.
- The land has changed, no more sugar, and the things that we knew, so now, it is hard to pinpoint what was where. All ditches used to feed water to the outlying sugar fields. There was also a big pond in Bellows, and the water was taken for irrigation. The area was past present-day golf course ponds. And below there, had the lower pond, not too far back from the ocean, where the runway is now. There were always wild ducks and other birds there.
- When he was a young (before starting to work and later as a young man, he knew Alona (Mrs. Hines granduncle), Mrs. Carlbaum (an elder Hawaiian woman) and the other old Hawaiians. He would follow them when they went fishing. In front of the Bellows area, we mostly caught pāpio and awa 'aua, moi, and used to get 'ō'io too. We used to go kā moi over there, but cannot find moi now. Kā moi is when you get two nets, and two people pound in stakes to tie off the nets and cross over, and we paipai [strike the water to drive the fish into the net]. But those days, the ocean brought in a lot of limu when the weather was rough. The sandy beach used to be full of limu, all kinds of limu (manauea, pahapaha and līpoa). The limu was thick. The only problem it would get all stuck on the nets too. Nowadays, I don't see limu come up on the sand, no more. Maybe the turtle eating all the limu.

Mrs. Hines added that they gathered limu 'ele'ele, huluhulu waena, and the pahapaha or limu $l\bar{u}$ 'au, a green lettuce seaweed from there before days. The turtles also used to come and eat the limu there and nest.

Mr. Yamada also recalled that the āholehole, Samoan crabs, and some of the ocean fish used to live in the ponds behind the dunes. There also used to have plenty shrimp mauka, but we didn't go bother. Crayfish used to have plenty too, because of the plantation, and the Filipinos used to go catch plenty. I never did go get 'ōpae or 'o'opu.

- The stream by Frankie's Drive-in was the bigger stream. Where the stream comes out in the ocean, it was just like an under tow, it was so strong. We almost lost one man while we were out fishing. Nowadays, no. Before, the flow was much stronger. Now is different.
- Nowadays, you see the ocean water in front of Bellows turn green. My day, we didn't see that in the ocean. We would see that in the standing stream or the ponds, but not the ocean. I notice it from my boat too, in certain areas, right in front of Bellows, though not necessarily where the stream comes out. I don't know what makes it green, and I don't remember that when I was young.
- Mr. Yamada stated that he had heard, but that he doesn't know if story is true, that during the war, and after, the military buried equipment and barrels in the dunes. I didn't see with my own eyes, but that's what I heard. It was the military, or the construction company (Hawaiian Dredging), they were the contractor for making the runway. We worked Saturday and Sunday at Bellows, and then five days a week we worked plantation. I worked in the machine shop.
- Describes circumstances around World War II, attack at Bellows and Mokapu, and landing of mini-submarine at Bellows...