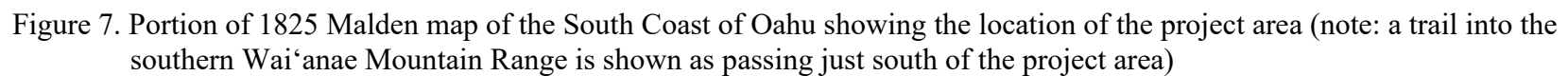


Figure 6. Portion of the 1810 Rockwood map of trails of Leeward O'ahu with overlay of project area (I'i 1959:96)



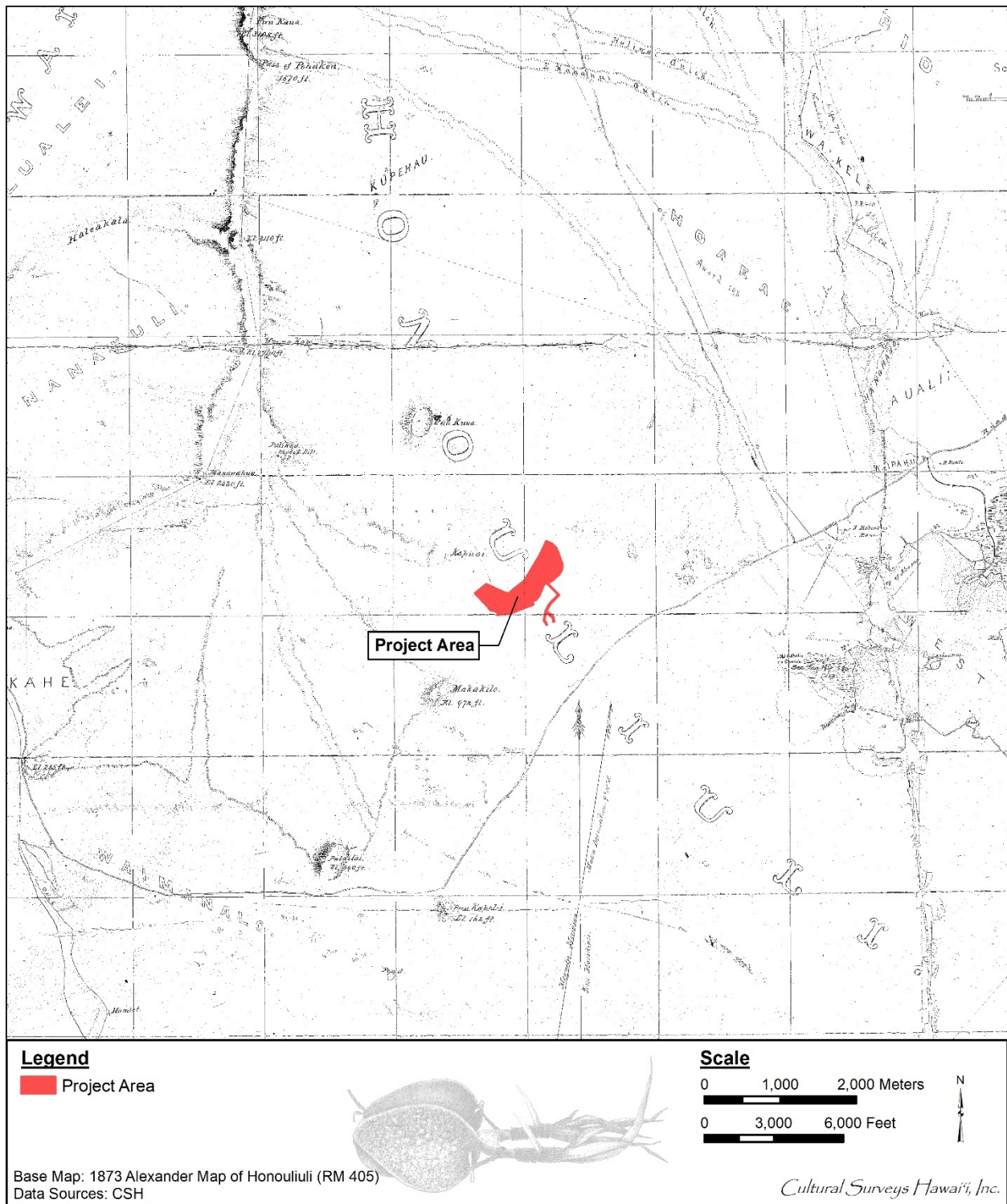


Figure 8. Portion of 1873 Alexander map of Honouliuli showing trail network in vicinity of project area

1825 Malden map (see Figure 7) shows a trail extending from the main trail along the south shore of O'ahu into the uplands in the Pālehua area as passing just a couple hundred meters to the southwest of the project area. The 1873 Alexander map (see Figure 8), one of the earliest detailed maps of the vicinity, shows no development near the project area.

3.2.7.1 Pōhākea Pass

Pōhākea Pass, on the Wai'anae Mountain Range, has an elevation of 671 m (2,200 ft) amsl. Pōhākea literally translates to “white stone” (Pukui et al. 1974:185). Pōhākea serves as a passage between *ahupua'a* of Honouliuli and Lualualei. This is also the location where Hi'iaka saw cloud omens that her *lehua* (flower of the 'ōhia tree [*Metrosideros polymorpha*]) groves had been burned by her sister Pele, and her friend Hōpoe had been turned into stone.

In *The Epic Tale of Hi'iakaikapoliopole*, Hi'iaka watches as her beloved friend Hōpoe is killed by the embers of her sister Pele. She chants atop Pōhākea and tells of the winds of Waikōloa and Wai'ōpua:

KAU HO'OKAHI HANERI A	CHANT ONE HUNDRED
ME KANALIMAKUMAMĀKOLU	AND FIFTY-THREE
<i>Aloha ku'u hoa i ka pū'ali lā</i>	Alas my friend of the rugged mountain pass
<i>A luna i Pōhākea, he luna o Kamaoha</i>	On high at Pōhākea, above Kamaoha
<i>He lae 'ino 'o Maunauna</i>	Maunauna is a dangerous escarpment
<i>'O Lihu'e ke hele 'ia</i>	Lihu'e's high plain yet to be traversed
<i>Honi i ke 'ala mau'u</i>	Inhaling the scent of the grasses
<i>I ke 'ala o ke kupukupu</i>	The fragrance of kupukupu fern
<i>E linoa ala e ka Waikōloa</i>	Entwined by the Waikoloa breeze
<i>E ka makani he Wai'ōpua</i>	By the wind called Wai'ōpua
<i>Ku'u pua, me he pua lā i ku'u maka</i>	My blossom, like a flower in my sight
<i>Ka 'oni i ka haku 'ōnohi, kā ka wai lā i li'u</i>	Moving before my eyes, washed salty by tears
<i>I ku'u maka lā, e uē au lā.</i>	There in my sight, I weep.

[Ho'oulumahie 2008a:262; Ho'oulumahie 2008b:262]

3.3 'Ōlelo No'eau

Hawaiian knowledge was shared by way of oral histories. Indeed, one's *leo* (voice) is oftentimes presented as *ho'okupu* (“a tribute or gift” given to convey appreciation, to strengthen bonds, and to show honor and respect); the high valuation of the spoken word underscores the importance of the oral tradition (in this case, Hawaiian sayings or expressions), and its ability to impart traditional Hawaiian “aesthetic, historic, and educational values” (Pukui 1983:vii). Thus, in many ways these expressions may be understood as inspiring growth within reader or between speaker and listener:

They reveal with each new reading ever deeper layers of meaning, giving understanding not only of Hawai'i and its people but of all humanity. Since the sayings carry the immediacy of the spoken word, considered to be the highest form of cultural expression in old Hawai'i, they bring us closer to the everyday thoughts and lives of the Hawaiians who created them. Taken together, the sayings offer a basis for an understanding of the essence and origins of traditional Hawaiian values. The sayings may be categorized, in Western terms, as proverbs, aphorisms, didactic adages, jokes, riddles, epithets, lines from chants, etc., and they present a variety of literary techniques such as metaphor, analogy, allegory, personification, irony, pun, and repetition. It is worth noting, however, that the sayings were spoken, and that their meanings and purposes should not be assessed by the Western concepts of literary types and techniques. [Pukui 1983:vii]

Simply, *'ōlelo no'eau* may be understood as proverbs. The Webster dictionary notes it as “a phrase which is often repeated; especially, a sentence which briefly and forcibly expresses some practical truth, or the result of experience and observation.” It is a pithy or short form of folk wisdom. Pukui equates proverbs as a treasury of Hawaiian expressions (Pukui 1995:xii). Oftentimes within these Hawaiian expressions or proverbs are references to places. This section draws from the collection of author and historian Mary Kawena Pukui and her knowledge of Hawaiian proverbs describing *'āina* (land), chiefs, plants, and places.

3.3.1 Concerning Sharks

The eastern coast of Honouliuli lies adjacent to Pu'uloa which has many *mo'olelo* about sharks, particularly Ka'ahupāhau, the queen shark of O'ahu and the most famous guardian shark who lived in Pu'uloa. Thus, Honouliuli is closely associated with shark *'aumakua* and *mo'olelo* which say the people of 'Ewa were protected by sharks. The following *'ōlelo no'eau* are associated with sharks.

3.3.1.1 'Ōlelo No'eau #105

Alahula Pu'uloa, he alahele na Ka'ahupāhau.

Everywhere in Pu'uloa is the trail of Ka'ahupāhau.

Said of a person who goes everywhere, looking, peering, seeing all, or of a person familiar with every nook and corner of a place. Ka'ahupāhau is the shark goddess of Pu'uloa (Pearl Harbor) who guarded the people from being molested by sharks. She moved about, constantly watching. [Pukui 1983:14]

3.3.1.2 'Ōlelo No'eau #1014

Ho'ahewa na niuhi ia Ka'ahupāhau

The man-eating sharks blamed Ka'ahupāhau

Evil-doers blame the person who safeguards the rights of others. Ka'ahupāhau was the guardian shark goddess of Pu'uloa (Pearl Harbor) who drove out or destroyed all the man-eating sharks. [Pukui 1983:108]

3.3.1.3 'Ōlelo No'eau #2152

Mehameha wale no o Pu'uloa, i ka hele a Ka'ahupāhau

Pu'uloa became lonely when Ka'ahupāhau went away

The home is lonely when a loved one has gone. Ka'ahupāhau, guardian shark of Pu'uloa (Pearl Harbor), was dearly loved by the people. [Pukui 1983:234]

3.3.1.4 'Ōlelo No'eau #2111

Make o Mikololou a ola i ke alelo

Mikololou died and came to life again through his tongue

Said of one who talks himself out of a predicament. [Pukui 1983:229–230]

3.3.2 Concerning the *Pipi* or Pearl Oyster of Pu'uloa

Pearl Harbor or Pu'uloa, derived from the name Waimomi, or “water of the pearl,” an alternate name for the Pearl River. The harbor was thus named after pearl oysters of the family Pteriidae (mainly *Pinctada radiata*), which were once abundant on the harbor reefs and after which many 'ōlelo no'eau were generated.

3.3.2.1 'Ōlelo No'eau #1331

Ka i'a hāmau leo o 'Ewa

The fish of 'Ewa that silences the voice

The pearl oyster, which has to be gathered in silence. [Pukui 1983:145]

Handy and Handy (1972:471) offer a different interpretation: “The pipi was sometimes called ‘the silent fish,’ or, ‘i'a hāmau leo o 'Ewa,’ ‘Ewa’s silent sea creature since the collectors were supposed to stay quiet while harvesting the shells.”

3.3.2.2 'Ōlelo No'eau #493

Haunāele 'Ewa i ka Moa'e

'Ewa is disturbed by the Moa'e wind

Used about something disturbing, like a violent argument. When the people of 'Ewa went to gather the *pipi* (pearl oyster), they did so in silence, for if they spoke, a Moa'e breeze would suddenly blow across the water, rippling it, and the oysters would disappear. [Pukui 1983:59]

3.3.2.3 'Ōlelo No'eau #274

E hāmau o makani mai auane 'i

Hush, lest the wind rise

Hold your silence or trouble will come to us. When the people went to gather pearl oysters at Pu'uloa, they did so in silence, for they believed that if they spoke, a gust of wind would ripple the water and the oysters would vanish. [Pukui 1983:34]

3.3.2.4 'Ōlelo No'eau #1357

Ka i'a kuhi lima o 'Ewa

The gesturing fish of 'Ewa

The pipi, or pearl oyster. Fishermen did not speak when fishing for them but gestured to each other like deaf-mutes. [Pukui 1983:148]

3.3.3 Concerning the 'Anae-holo of Honouliuli

The migration of the 'anae-holo of Honouliuli is described in the following excerpt from which the 'ōlelo no'eau below derives:

The home of the 'anae-holo is at Honouliuli, Pearl Harbor, at a place called Ihuopala'ai. They make periodical journeys around to the opposite side of the island, starting from Pu'uloa and going to windward, passing successively Kumumanu, Kalihi, Kou, Kālia, Waikīkī, Ka'alāwai, and so on, around to the Ko'olau side, ending at Lā'ie, and then returning by the same course to their starting point. [Nakuina 1998:271]

3.3.3.1 'Ōlelo No'eau #1330

Ka i'a hali a ka makani

The fish fetched by the wind

The 'anaeholo, a fish that travels from Honouliuli, where it breeds, to Kaipāpa'u, on the windward side of O'ahu. It then turns about and returns to its original home. It is driven closer to shore when the wind is strong. [Pukui 1983:145]

3.3.4 Concerning Kalo

A rare taro called the "kāi o 'Ewa," was grown in mounds in marshy locations in 'Ewa (Handy and Handy 1972:471). The cultivation of this prized and delicious taro led to the following saying:

3.3.4.1 'Ōlelo No'eau #2770

Ua 'ai i ke kāi-koi o 'Ewa

He has eaten the kāi-koi taro of 'Ewa

Kāi is O'ahu's best eating taro; one who has eaten it will always like it. Said of a youth of a maiden of 'Ewa, who, like the kāi taro, is not easily forgotten. [Pukui 1983:305]

3.3.5 Concerning the Ao Kuewa, Realm of the Homeless Souls

3.3.5.1 'Ōlelo No'eau #1666

Ka wiliwili o Kaupe'a

The wiliwili grove of Kaupe'a

In 'Ewa, O'ahu. Said to be where homeless ghosts wander among the trees. [Pukui 1983:180]

Pukui (1983:180) offers this Hawaiian saying, which places the wandering souls in a “*wiliwili*” grove at Kaupe‘a, a place in Honouliuli where homeless ghosts wandered among the trees.

3.3.6 Concerning the landscape of ‘Ewa

3.3.6.1 ‘Ōlelo No‘eau #80

The following proverb describes the red landscape of the ‘Ewa plain.

‘Āina koi ‘ula i ka lepo.

Land reddened by the rising dust.

Said of ‘Ewa, O‘ahu. [Pukui 1983:11]

3.3.6.2 ‘Ōlelo No‘eau #2542

The expression below describes the residents of Kaupe‘a ‘Ili.

‘Ō‘ū ō loa na manu o Kaupe‘a.

The birds of Kaupe‘a trill and warble.

Said of the chatter of happy people. [Pukui 1983:278]

3.3.6.3 ‘Ōlelo No‘eau #1855

The expression below discusses the boundaries between *ali‘i* and *maka‘āinana* lands in ‘Ewa.

Ku a‘e ‘Ewa; Noho iho ‘Ewa.

Stand-up ‘Ewa; Sit-down ‘Ewa.

The names of two stones, now destroyed, that once marked the boundary between the chiefs’ land (Kua‘e ‘Ewa) and that of the commoners (Noho iho ‘Ewa) in ‘Ewa, O‘ahu. [Pukui 1983:200]

3.4 *Oli* (Chants)

Oli, according to Mary Kawena Pukui (Pukui 1995:xvi–xvii) are often grouped according to content. Chants often were imbued with *mana* (divine power); such *mana* was made manifest through the use of themes and *kaona*. According to Pukui, chants for the gods (*pule*; prayers) came first, and chants for the *ali‘i*, “the descendants of the gods,” came second in significance. Chants “concerning the activities of the earth peopled by common humans,” were last in this hierarchy (Pukui 1995:xvi–xvii). Emerson conversely states:

In its most familiar form the Hawaiians—many of whom [were lyrical masters]—used the *oli* not only for the songful expression of joy and affection, but as the vehicle of humorous or sarcastic narrative in the entertainment of their comrades. The dividing line, then, between the *oli* and those other weightier forms of the *mele*, the *ino*, the *kanikau* (threnody), the *pule*, and that unnamed variety of *mele* in which the poet dealt with historic or mythologic subjects, is to be found almost wholly in the mood of the singer. [Emerson 1965:254]

While *oli* may vary thematically, subject to the perspective of the *ho‘opa‘a* (chanter), it was undoubtedly a valued art form used to preserve oral histories, genealogies, and traditions, to recall

special places and events, and to offer prayers to *akua* and *‘aumākua* alike. Perhaps most importantly, as Alameida (1993:26) writes, “chants [...] created a mystic beauty [...] confirming the special feeling for the environment among Hawaiians: their *one hānau* (birthplace), their *kula iwi* (land of their ancestors).”

3.4.1 *Olī* for Kūali‘i

A chant for the chief Kūali‘i, an ancient chief of O‘ahu, mentions the *ahupua‘a* names of the ‘Ewa District including Honouliuli Ahupua‘a. Each phrase usually contains a play on words, as the place name and one meaning of the word, or portion of the word, appears on each line, for example, *kele* in Waikele means “slippery.” However, these word plays are not necessarily related to the actual place name meanings of the *ahupua‘a*.

<i>Uliuli ka poi e piha nei—o Honouliuli;</i>	Blue is the <i>poi</i> [pounded taro] which appeases [the hunger] of Honouliuli;
<i>Aeae ka paakai o Kahuaiki—Hoeae;</i>	Fine the salt of Kahuaike—Hoeae;
<i>Pikele ka ia e waikele—o Waikele;</i>	Slippery the fish of Waikele— of Waikele;
<i>Ka hale pio i Kauamoa—o Waipio;</i>	The arched house at Kauamoa— of Waipio;
<i>E kuu kaua i ka loko awa—o Waiawa;</i>	Let us cast the net in the <i>awa</i> -pond— of Waiawa;
<i>Mai hoomanana ia oe—o Manana.</i>	Do not stretch yourself at—Manana.
<i>He kini kahawai,</i>	Many are the ravines,
<i>He lau kamano—o Waimano;</i>	Numerous the sharks, at Waimano;
<i>Ko ia kaua e ke au—o Waiau;</i>	We are drawn by the current— of Waiau;
<i>Kukui malumalu kaua—Waimalu;</i>	In the <i>kukui</i> grove we are sheltered— in Waimalu;
<i>E ala kaua ua ao-e—o Kalauao;</i>	Let us arise, it is daylight— at Kalauao;
<i>E kipi kaua e ai—o Aiea,</i>	Let us enter and dine—at Aiea;
<i>Mai hoohalawa ia oe—o Halawa.</i>	Do not pass by—Halawa.

[*Ka Nupepa Kuokoa*, Book 7, Number 21, 23 May 1868, He mele no Kualii, Kulanipipili, Kulanioka, Kunuiakea; Fornander 1917b:4[2]:400–401]

A chant for the Kaua‘i chief of Kaumuali‘i, a rival of Kamehameha I, also mentions place names of the ‘Ewa District. In a portion of this chant, the wind that blows from one end of ‘Ewa to the other is compared to love.

3.4.2 Hi'iaka and the Plains of Keahumoa

While passing through 'Ewa, Hi'iaka, sister of the goddess Pele, met women stringing *lei* with *ma'o* flowers. Desiring a *lei* of her own, Hi'iaka offered a chant:

<i>E lei ana ke kula o Keehumoa i ka ma'o</i>	The plains of Ke'ehumoa are
	garlanded with ma'o
<i>Ohuohu wale na wahine kui lei o</i>	The lei-stringing women of the forest
<i>ka nahele</i>	are festively adorned

[Ho'oumāhiehiemalie 2008a:287; 2008b:268]

In the chant, Hi'iaka mentions the plains of Ke'ehumoa which according to McAllister (1933:107) are located west of Kīpapa Gulch in Waikele. Ke'ehumoa was also possibly a general name for the flat plain *mauka* of the productive floodplain area directly adjacent to Pearl Harbor.

3.4.3 Hi'iaka and the Plains of Kaupe'a

Hi'iaka sang this bitter chant addressed to Lohi'au and Wahine'ōma'o, which uses the association of the Plains of Kaupe'a as a place for the wandering of lost souls:

*Ku'u aikana i ke awa lau o Pu'uloa,
 Mai ke kula o Pe'e-kaua, ke noho oe,
 E noho kaua e kui, e lei i ka pua o ke kauno'a,
 I ka pua o ke akuli-kuli, o ka wili-wili;
 O ka iho'na o Kau-pe'e i Kane-hili,
 Ua hili au; akahi no ka hili o ka la pomaika'i;
 E Lohiau ipo, e Wahine-oma'o,
 Hoe 'a mai ka wa'a i a'e aku au.*

We meet at Ewa's leaf-shaped lagoon, friends;
 Let us sit, if you will on this lea
 And bedeck us with wreaths of Kauno'a,
 Of *akuli-kuli* and *wili-wili*,
 My soul went astray in this solitude;
 It lost the track for once, in spite of luck,
 As I came down the road to Kau-pe'a.
 No nightmare dream was that which tricked my soul.
 This way, dear friends; turn the canoe this way;
 Paddle hither and let me embark.

[Emerson 1915:167–168]

Several other Honouliuli places are mentioned in this chant, including Pe'ekaua, which may be a variation of Ka-pe'e or Kaupe'a, and the plains of Kānehili, the last of which again refers to wandering, as the word *hili* means "to go astray" (Emerson 1993:162). In the chant, Hi'iaka is moving downhill from Kaupe'a, probably the plains adjacent to Pu'uokapolei, toward the coast, the plain of Kānehili.

3.4.1 Ka'ao no Halemano

In the Legend of Halemano, the romantic O'ahu anti-hero, he chants a love song with a reference to Honouliuli:

Huli a'e la Ka'ala kau i luna, Waiho wale kai o Pōka'i, Nānā wale ke aloha i Honouliuli, Kokolo kēhau he makani no Līhu'e [...]

Search is made to the top of Ka'ala, the lower end of Pōka'i is plainly seen. Love looks in from Honouliuli, The dew comes creeping, it is like the wind of Līhu'e [...]. [Fornander 1919e:5(2):252]

3.5 Mele (Songs)

The following section draws from the Hawaiian art of *mele*, poetic song intended to create two styles of meaning.

Words and word combinations were studied to see whether they were auspicious or not. There were always two things to consider the literal meaning and the *kaona*, or 'inner meaning.' The inner meaning was sometimes so veiled that only the people to whom the chant belonged understood it, and sometimes so obvious that anyone who knew the figurative speech of old Hawai'i could see it very plainly. There are but two meanings: the literal and the *kaona*, or inner meaning. The literal is like the body and the inner meaning is like the spirit of the poem. [Pukui 1949:247]

The Hawaiians were lovers of poetry and keen observers of nature. Every phase of nature was noted and expressions of this love and observation woven into poems of praise, of satire, of resentment, of love and of celebration for any occasion that might arise. The ancient poets carefully selected men worthy of carrying on their art. These young men were taught the old *meles* and the technique of fashioning new ones. [Pukui 1949:247]

There exist a few *mele* that concern or mention Honouliuli. These particular *mele* may also be classified as *mele wahi pana* (songs for legendary or historic places). *Mele wahi pana* such as those presented here may or may not be accompanied by *hula* or *hula wahi pana* (dance for legendary or historic places). As the Hula Preservation Society notes:

Hula Wahi Pana comprise a large class of dances that honor places of such emotional, spiritual, historical, or cultural significance that chants were composed for them. Only the composers of the chants could know the deepest meanings, as they would be reflections of their feelings and experiences [...] Since the subjects of *Wahi Pana* compositions are extremely varied, their implementation through *hula* are as well. Coupled with the differences from one *hula* style and tradition to the next, *Hula Wahi Pana* can be exceptionally diverse. They can be done sitting or standing, with limited body movement or wide free movement; with or without the use of implements or instruments; with the dancers themselves chanting and/or playing an implement or being accompanied by the *ho'opa'a* [drummer and *hula* chanter (memorizer)]. Beyond the particular *hula* tradition, what ultimately determines the manner in which a *Hula Wahi Pana* is performed are the specific

place involved, why it is significant, the story being shared about it, and its importance in the composer's view. [Hula Preservation Society 2014]

3.5.1 *Mele no Kūali'i*

The celebrated chief, Kūali'i, is said to have led an army of twelve thousand against the chiefs of Ko'olauloa with an army of twelve hundred upon the plains of Keahumoa (Fornander 1917b:4[2]:364-401) which according to McAllister (1933:107) are located west of Kīpapa Gulch in Waikele. Perhaps because the odds were so skewed, the battle was called off and the *ali'i* of Ko'olau ceded the districts of Ko'olauloa, Ko'olaupoko, Waialua, and Wai'anae to Kūali'i. When the *ali'i* of Kaua'i heard of this victory at Honouliuli they gave Kaua'i to Kūali'i as well and thus he became possessed of all the islands. The strife at Honouliuli was the occasion of the recitation of a song for Kūali'i by a certain Kapa'ahulani. This *mele* compares the king to certain places and objects in the islands, in this instance to the first breadfruit planted by Kaha'i at Pu'uloa, and a pig and a woman on Pu'uokapolei, possibly a reference to Kamapua'a and his grandmother.

In this *mele*, the cold winds of Kumomoku and Leleiwe, near Pu'uloa in Honouliuli are compared unfavorably to the god Kū:

<i>Aole i like Ku.</i>	Not like these are thou, Ku
<i>Ia ua hoohali kehau,</i>	[Nor] the rain that brings the land breeze,
<i>Mehe ipu wai ninia la,</i>	Like a vessel of water poured out.
<i>Na hau o Kumomoku;</i>	Nor to the mountain breeze of Kumomoku,
<i>Kekee na hau o Leleiwi,</i>	[The] land breeze coming round to Leleiwi.
<i>Oi ole ka oe i ike</i>	Truly, have you not known?
<i>I ka hau kuapuu,</i>	The mountain breezes, that double up your back,
<i>Kekee noho kee, o Kaimohala,</i>	[That make you] sit crooked and cramped at Kaimohala,
<i>O Kanehili i Kaupea-la</i>	The Kanehili at Kaupea?
<i>Aole i like Ku.</i>	Not like these are thou, Ku
[Fornander 1917b:4[2]:390–391]	

A later section of this *mele* also refers to Pu'uokapolei and makes mention of the famous blue *poi* of Honouliuli.

<i>O Kawelo-e, e Kawelo-e,</i>	O Kawelo! Say, Kawelo!
<i>O Kaweloiki puu oioi,</i>	Kawelokiki, the sharp-ponted hill,
<i>Puu o Kapolei-e-</i>	Hill of Kapolei.
<i>Uliuli ka poi e piha nei-o Honouliuli.</i>	Blue is the poi which appeases

[the hunger] of Honouliuli.

[Fornander 1917b:4[2]:400–401]

3.5.2 *Eia Mai Au ‘o Makalapua*

This particular *mele* pays homage to the royal train called *Lanakila*. In paying homage to this train, the *mele* also pays homage to its most honored and well-known passenger, Queen Lili‘uokalani. This *mele* may also be understood as a protest song.

In analyzing this *mele*, cultural historian Kīhei de Silva notes that “Eia mai Au ‘o Makalapua” is the second of three chants that make up *hō‘alo i ka ihu o ka Lanakila* (Three Train Chants for Lili‘uokalani). He adds that these songs, “when considered in chronological succession [...] add a Hawaiian dimension to the story of Benjamin Franklin (B.F.) Dillingham’s Oahu Railway and Land Company (OR&L), a story that otherwise reads far too much like an early script of *How the West was Won*” (de Silva 2003). De Silva provides a chronology of B.F. Dillingham’s rise to influence within Hawaiian political spheres, and his eventual founding and construction of the OR&L line. Dillingham also figures prominently within Honouliuli Ahupua‘a (see Section 4.3.2). Dillingham’s personal history is described by de Silva as follows:

- Arrived in Honolulu in 1865 as first mate of the *Whistler*.
- He promptly fell off a horse and broke his leg. When his ship left without him, he took a job as a clerk in a hardware store.
- 20 years later, in 1885, he had become Hawai‘i’s first big-time land speculator, buying and leasing vast tracts of property in West O‘ahu in hopes of reselling it to housing and ag. interests.
- When no one, in fact, took interest in his largely inaccessible property, he decided to build a railroad through it.
- In 1888, Dillingham convinced Kalākaua to sign a franchise giving him three years to build a line running from Honolulu to the far end of Pearl River Lagoon. His critics called it ‘Dillingham’s Folly,’ but Dillingham boasted that he would put his railroad into operation by Sept. 4, 1889, his 45th birthday.
- Things did not go well in the early months of construction, and in order to fulfill this boast, Dillingham had to fire up a miniscule saddle-tank engine named *Kauila*, hitch it to a flatcar that carried his passengers on jury-rigged seats, and send it bucking, wheezing, and spewing greasy foam down a mile-and-a-half of track that ended in the rice paddies of Pālama.
- Despite this farcical beginning, the construction of Dillingham’s railroad then proceeded in rather impressive fashion: the line was opened to ‘Aiea in November 1889, to Mānana in January 1890, to Honouliuli and ‘Ewa Mill in June and July 1890, to Wai‘anae in July 1895, to Waialua in June, 1898, and to Kahuku in January 1899. [de Silva 2003]

In 1890, as construction of the railway moved forward, B.F. Dillingham bought and shipped to Hawai‘i a passenger coach named *The Pearl* and a locomotive named *General Valleho*. According to de Silva (2003), the *Pearl* was built in San Francisco and was “paneled in rich woods and

outfitted with plush chairs, velvet drapes, electric lights, a kitchen, a lānai with a striped canvas awning, and a new-fangled contraption called a flush toilet.” The *General Valleho* was renamed the *Lanakila* by Dillingham:

[...] [He] gave it the number 45, a tribute to his 45th birthday boast and erstwhile victory in the rice paddies of Pālama. The *Lanakila* became Dillingham's 4th locomotive—after the *Kauila*, *Leahi*, and *Ka'ala*—and for many years it was regarded as the most attractive engine in the OR&L stable. Dillingham apparently wasted no time in hitching the *Pearl* to the *Lanakila* and using the pair as his wine-'em and dine-'em celebrity train, the vehicle in which he wooed financial and political support for his business ventures. [de Silva 2003]

As part of Dillingham's plans to woo the influential, he invited King Kalākaua on the inaugural ride on the *Lanakila*. Dillingham also insisted the luxury coach *Pearl* serve as the king's own royal car. De Silva (2003) notes it is “safe for us to assume that Queen Lili'u[okalani] rode in the *Pearl* when the *Lanakila* took her on the train rides.” With the opening of the 'Ewa Mill station, Queen Lili'uokalani once again embarked on a journey on the *Lanakila*; this particular journey took her through “the lowlands of Honouliuli, and finally to the exposed coral plain of Pōlea on which the 'Ewa Mill Station was located” (de Silva 2003).

<i>Eia mai au 'o Makalapua</i>	Here I am, Makalapua
<i>Hō'alo i ka ihu o ka Lanakila.</i>	Traveling where the <i>Lanakila</i> goes.
<i>'O ke ku'e a ka hao a i Kūwili</i>	The piston works at Kūwili
<i>Ka hiona 'olu a 'o Hālawa.</i>	And down the pleasant descent of Hālawa.
<i>Ua lawa ka 'ikena i ke awalau</i>	Satisfying is the view of the lochs
<i>Iā 'Ewa ka i 'a hāmau leo.</i>	Of 'Ewa, “land of the silent fish.”
<i>Ua piha ka uahi a i Mānana</i>	The smoke rises at Mānana
<i>Aweawe i ke kula o Waipi'o.</i>	And streams along at Waipi'o.
<i>I kai ho'i au a Honouliuli</i>	Then I reached the lowlands of Honouliuli
<i>Ahuwale ke ko 'a o Pōlea.</i>	Where the corals of Pōlea lie exposed.
<i>Ha'ina 'ia mai ana ka puana</i>	This is the conclusion of the song
<i>Hō'alo i ka ihu a ka Lanakila.</i>	Of traveling where the <i>Lanakila</i> goes.

[de Silva 2003]

De Silva (2003) provides a remarkable breakdown of this *mele*, delving into the subtext to reveal another layer of understanding, of *kaona*:

'Makalapua' shares [...] the sense of awesome efficiency and harmony [...] These are apparent in 'Makalapua's' description of the working of the train's piston at Kūwili, in the rising and billowing of steam at Mānana and Waipi'o, and especially in the sense of speed with which the *mele* whisks us from Honolulu to Pōlea in the space of its six, two-line verses. Efficiency and harmony, however, are not at the heart of 'Makalapua;' it is inspired and driven, instead, by *aloha 'āina*—love for

the land—and by *kū'ē ho'ohui 'āina*—resistance to annexation. In my reading of the mele, the dominant imagery is that of flower-stringing. The train and track serve as the contemporary equivalent of lei needle and thread; with them, Lili'u sews a series of beloved place-names and place-associations into a lei of adornment and protection for Ke-awalau-o-Pu'uloa. Keawalauopu'uloa, the many-harbored sea of Pu'uloa, is the old name for Pearl Harbor. The cession of Pearl Harbor to America in return for sugar reciprocity was one of the hottest political issues of 'Makalapua's' day. Lili'u was absolutely opposed to any Keawalau deals; her brother, on the other hand, had regularly waved this bait at the American nose; he was even rumored, on his Nov. 1890 departure to San Francisco, to have harbored a hidden Pearl Harbor agenda. The key lines of 'Makalapua' are 'Ua lawa ka 'ikena i ke awalau / Iā 'Ewa ka i'ā hāmau leo [...] I kai ho'i au a Honouliuli / Ahuwale ke ko'a o Pōlea.' In my reading, these lines say: 'We hold to our knowledge of Keawalau, we are like its closed-mouthed pipi, its oysters; we will never give up the pearl that we contain; here at the shoreline of Honouliuli we normally silent fish reveal this deeply held conviction.' [de Silva 2003]

Section 4 Traditional and Historical Background

4.1 Pre-Contact to Early Post-Contact Period

4.1.1 Traditional Agricultural Resources

Various Hawaiian legends and early historical accounts indicate the *ahupua'a* of Honouliuli was once widely inhabited by pre-Contact populations, including the Hawaiian *ali'i*. This would be attributable for the most part to the plentiful marine and estuarine resources available at the coast, along which several sites interpreted as permanent habitations and fishing shrines have been located. Other attractive subsistence-related features of the *ahupua'a* include irrigated lowlands suitable for wetland taro cultivation, as well as the lower forest area of the mountain slopes for the procurement of forest resources. Handy and Handy (1972) report:

The lowlands, bisected by ample streams, were ideal terrain for the cultivation of irrigated taro. The hinterland consisted of deep valleys running far back into the Ko'olau range. Between the valleys were ridges, with steep sides, but a very gradual increase of altitude. The lower parts of the valley sides were excellent for the culture of yams and bananas. Farther inland grew the 'awa for which the area was famous. [Handy and Handy 1972:429]

In addition, breadfruit, coconuts, *wauke* (paper mulberry; *Broussonetia papyrifera*), bananas, and *olonā* (*Touchardia latifolia*) and other plants were grown in the interior. 'Ewa was known as one of the best areas to grow gourds and was famous for its *māmaki* (*Pipturus*). It was also famous for a rare taro called the *kāi o 'Ewa*, which was grown in mounds in marshy locations (Handy and Handy 1972:471). The cultivation of this prized and delicious taro led to the saying:

Ua 'ai i ke kāi-koi o 'Ewa.

He has eaten the kāi-koi taro of 'Ewa.

Kāi is O'ahu's best eating taro; one who has eaten it will always like it. Said of a youth of a maiden of 'Ewa, who, like the kāi taro, is not easily forgotten.

[Pukui 1983:305].

Exploitation of the forest resources along the slopes of the Wai'anae Range—as suggested by E.S. and E.G. Handy—probably acted as a viable subsistence alternative during times of famine:

The length or depth of the valleys and the gradual slope of the ridges made the inhabited lowlands much more distant from the *wao*, or upland jungle, than was the case on the windward coast. Yet the *wao* here was more extensive, giving greater opportunity to forage for wild foods in famine time. [Handy and Handy 1972:469]

These upper valley slopes may have also been a significant resource for opportunistic quarrying of basalt for the manufacturing of stone tools. This is evidenced in part by the existence of a probable quarrying site (State Inventory of Historic Places [SIHP] # 50-80-12-4322) in Makaīwa Gulch at 152 m (500 ft) above mean sea level, west of the current project area (Hammatt et al. 1991).

Subsequent to Western Contact in the area, the landscape of the 'Ewa Plain and Wai'anae slopes was adversely affected by the removal of the sandalwood and other trees, and the introduction of domesticated animals and new vegetation. Goats, sheep, and cattle were brought to the Hawaiian Islands by Vancouver in the early 1790s and allowed to graze freely about the land for some time after. L.A. Henke reports the existence of a longhorn cattle ranch in Wai'anae by at least 1840 (Frierson 1972:10). During this time, perhaps as early as 1790, exotic vegetation species were introduced to the area. These typically included vegetation best suited to a terrain disturbed by the logging of sandalwood forest and eroded by animal grazing. The following dates for the introduction of exotic vegetation are given by R. Smith and outlined by Frierson (1972:10–11):

1. 'early,' c. 1790: for the establishment of Prickly pear cactus, (*Opuntia tuna*), *Haole koa*, (*Leucaena leucocephala*) and Guava (*Psidium guajava*)
2. 1835-1840: Burmuda [*sic*] grass (*Cynodon dactylon*) and Wire grass (*Eleusine indica*)
3. 1858: Lantana (*Lantana camara*)

The *kiawe* tree (*Prosopis pallida*) was also introduced during this period, either in 1828 or 1837 (Frierson 1972:11).

4.1.2 Traditional Settlement Patterns

Early historical accounts of the general region typically refer to the more populated areas of the 'Ewa district, where missions and schools were established and subsistence resources were perceived to be greater. However, the presence of archaeological sites along the barren coral plains and coast of southwest Honouliuli Ahupua'a indicates pre-Contact and early historic populations also adapted to less inviting areas, despite the environmental hardships.

Oral traditions related to the 'Ewa line of chiefs recall battles and chiefly claims upon valuable territories. The rich resources of Pu'uloa—the fisheries in the lochs, the shoreline fishponds, the numerous springs, and the irrigated lands along the streams—made 'Ewa a prize for competing chiefs. Battles were fought for the 'Ewa lands, sometimes by competing O'ahu chiefs and invading chiefs from other islands.

'Ewa was a political center and home to many chiefs in its day. Oral accounts of *ali'i* recorded by Hawaiian historian Samuel Kamakau date back to at least the twelfth century:

The chiefs of Līhu'e [upland area in 'Ewa], Wahiawā, and Halemano on O'ahu were called *lō ali'i*. Because the chiefs at these places lived there continually and guarded their *kapu*, they were called *lō ali'i* [from whom a 'guaranteed' chief might be obtained, *loa'a*]. They were like gods, unseen, resembling men. [Kamakau 1991b:40]

In the mid-eleventh century, Māweke, a direct lineal descendant of the illustrious Nānāulu, ancestor of Hawaiian royalty, was a chief of O'ahu (Fornander 1996:47). Keaunui, the second of his three sons, became the head of the powerful 'Ewa chiefs. Tradition tells of him cutting a navigable channel through the Pearl River using his canoe. Keaunui's son, Lakona, became the progenitor of the 'Ewa chiefs around 1400 (Fornander 1996:224–226). Chiefs within his line, the Māweke-Kumuhonua line, reigned until about 1520-1540, with their major royal center in Līhu'e in 'Ewa (Cordy 2002:24). Haka was the last chief of the Māweke-Kumuhonua line. He was slain by his men at the fortress of Waewae near Līhu'e (Fornander 1996:88; Kamakau 1991b:54).

Mā'ilikūkahī was born *ali 'i kapu* (sacred chief) at the birthing stones of Kūkaniloko (Kamakau 1991b:53) and became *mō'ī* (king) of O'ahu between 1520-1540 (Cordy 2002:19). Mā'ilikūkahī was popular during his reign and was remembered for initiating land reforms that brought about peace, and for encouraging agricultural production, which brought about prosperity. He also prohibited the chiefs from plundering the *maka 'āinana*, a prohibition that was punishable by death (Kamakau 1991b:55).

Upon consenting to become *mō'ī* at the age of 29, Mā'ilikūkahī was taken to Kapukapuākea Heiau at Pa'ala'akai in Waialua to be consecrated. Soon after becoming king, Mā'ilikūkahī was taken by the chiefs to live at Waikīkī. He was probably one of the first chiefs to live there, as the chiefs had previously always lived at Waialua and 'Ewa. Under his reign, the land divisions were reorganized and redefined (Pukui et al. 1974:113).

In reference to the productivity of the land and the population during Mā'ilikūkahī's reign, Kamakau writes,

In the time of Mā'ili-kūkahī, the land was full of people. From the brow, lae, of Kulihemo to the brow of Maunauna in 'Ewa, from the brow of Maunauna to the brow of Pu'ukua [Pu'u Ku'ua] the land was full of chiefs and people. From Kānewai to Halemano in Wai'alua, from Halemano to Paupali, from Paupali to Hālawā in 'Ewa the land was filled with chiefs and people. [Kamakau 1991b:55]

Mā'ilikūkahī's peaceful reign was interrupted by an invasion which would change 'Ewa forever. Fornander describes the Battle of Kīpapa (to be paved [with the corpses of the slain]) at Kīpapa Gulch in Waipi'o Ahupua'a:

I have before referred to the expedition by some Hawaii chiefs, *Hilo-a-Lakapu*, *Hilo-a-Hilo-Kapuhi*, and *Punaluu*, joined by *Luakoa* of Maui, which invaded Oahu during the reign of *Mailikukahi*. It cannot be considered as a war between the two islands, but rather as a raid by some restless and turbulent Hawaii chiefs [...] The invading force landed at first at Waikiki, but, for reasons not stated in the legend, altered their mind, and proceeded up the Ewa lagoon and marched inland. At Waikakalaua they met *Mailikukahi* with his forces, and a sanguinary battle ensued. The fight continued from there to the Kipapa gulch. The invaders were thoroughly defeated, and the gulch is said to have been literally paved with the corpses of the slain, and received its name 'Kipapa,' from this circumstance. *Punaluu* was slain on the plain which bears his name, the fugitives were pursued as far as Waimano, and the head of *Hilo* was cut off and carried in triumph to Honouliuli, and stuck up at a place still called *Poo-Hilo*. [Fornander 1996:89–90]

Power shifted between the chiefs of different districts from the 1500s until the early 1700s, when Kūali'i achieved control of all of O'ahu by defeating the Kona chiefs. He then defeated the 'Ewa chiefs and expanded his control on windward Kaua'i. Peleihōlani, the heir of Kūali'i, gained control of O'ahu about 1740, and later conquered parts of Moloka'i. He ruled O'ahu until his death in about 1778 when Kahahana, of the 'Ewa line of chiefs, was selected as the ruler of O'ahu (Cordy 2002:24–41). Somewhere between 1883 and 1885, Kahahana was killed by Kahekili of Maui. The subsequent rebellion amongst the chiefs resulted in a near genocide of the monarchy line on O'ahu. Oral reports also tell of the stream of Hō'ai'ai (Hō'ae'ae) in the *ahupua'a* immediately east of Honouliuli, choked with the bodies of the slain (Fornander 1996:224–226). Kahekili and the Maui

chiefs retained control of O'ahu until the 1790s. Kahekili died at Waikīkī in 1794. His son, Kalanikūpule, was defeated the following year at the Battle of Nu'uanu by Kamehameha (Kamakau 1992:376–377). Thus, the supremacy of the 'Ewa chiefs came to a final end.

4.2 Early Historic Period

4.2.1 Observations of Early Explorers and Visitors

Captain James Cook arrived in the Hawaiian Islands in 1778, and ten years later the first published description of Pearl Harbor appeared. Captain Nathaniel Portlock, observing the coast of Honolulu for Great Britain, recorded the investigation of a “fine, deep bay running well to the northward” around the west point of “King George’s Bay” in his journal (Portlock 1789:74). Portlock’s description matches the entire crescent-shaped shoreline from Barbers Point to Diamond Head.

Captain George Vancouver made three voyages to the Hawaiian Islands between 1792 and 1794. In 1793, the British captain recorded the name of the harbor opening as “O-poo-ro-ah” (Pu‘uloa) and sent several boats across the sand bar to venture into the harbor proper (Vancouver 1798:884). The area known as “Pu‘u-loa” was comprised of the eastern bank at the entrance to Pearl River. George Vancouver anchored off the entrance to West Loch in 1793, and the Hawaiians told him of the area at “a little distance from the sea, [where] the soil is rich, and all the necessities of life are abundantly produced” (Vancouver 1798 in Sterling and Summers 1978:36). Mr. Whitbey, one of Vancouver’s crew, observed, “from the number of houses within the harbor it should seem to be very populous; but the very few inhabitants who made their appearance were an indication of the contrary” (Vancouver 1798 in Sterling and Summers 1978:36).

Captain Vancouver sailed by Kalaeloa (Barbers Point) in 1792, and recorded his impression of the small coastal village of Kūalaka‘i and the arid Honouliuli coast:

The point is low flat land, with a reef round it [...] Not far from the S.W. point is a small grove of shabby cocoa-nut trees, and along these shores are a few fishermen’s huts. [Vancouver 1798:1:167]

[...] from the commencement of the high land to the westward of Opooroah [Pu‘uloa], was composed of one barren rocky waste, nearly destitute of verdure, cultivation or inhabitants, with little variation all the way to the west point of the island. [Vancouver 1798:2:217]

This tract of land was of some extent but did not seem to be populous, nor to possess any great degree of fertility; although we were told that at a little distance from the sea, the soil is rich, and all necessities of life are abundantly produced. [Vancouver 1798:3:361–363]

Henry Barber was an English sea captain who traveled around the Hawaiian Islands during 1794 to 1807. Barber is the namesake for the common place name known today as Barbers Point, traditionally Kalaeloa.

In 1795 he left China in the ship *Arthur* for the northwest going again by way of Australia. In the following summer he was trading along the Alaskan and British Columbian coast. In Sept. 1796, he left Nootka Sound for Canton via ‘the Island.’ The *Arthur* called in at Honolulu at the end of October for provisions and re-fittings.

At 6 p.m. on October 31, 1796, Barber sailed the *Arthur* out of Honolulu harbor for Kauai to get a supply of yams. Two hours later the brig hit a shoal about an acre in extent with 12 feet of water over it, and close to the breakers. The shoal was probably a little to the westward of Pearl Harbor. But as Judge Howay says, how the skipper steered his brig into such a position is a mystery. [Sterling and Summers 1978:40]

Kamakau recalls the same incident as follows:

In October, 1796, a ship [*Arthur*, under Henry Barber] went aground at Kalaeloa, Oahu. This ship had visited the island on several occasions during the rule of Kalandi-ku-pule. This was the first time a foreign ship had grounded on these shores, Kamehameha was on Hawaii, but Young had remained on Oahu. All the men on the ship came ashore at night in their boats. At daylight when the ship was seen ashore Ku-i-helani placed a ban on the property of the ship and took care of the foreigners. Hawaiian divers recovered the valuables, and they were given over to the care of Ku-i-helani, but part were given by Captain Barber to the men who had recovered them. [Kamakau 1992:174]

During the first decades of the nineteenth century, several western visitors described the 'Ewa landscape near Pearl Harbor. Archibald Campbell, an English sailor, spent some time in Hawai'i during 1809-1810. He had endured a shipwreck off the Island of Sannack on the northwest coast of America. As a result, both his feet became frostbitten and were amputated. He spent over a year recuperating in the Hawaiian Islands. His narrative is considered noteworthy because it describes life in the 'Ewa District before the missionaries arrived. During part of his stay, he resided with King Kamehameha I, who granted him 60 acres in Waimano Ahupua'a in 1809. Campbell described his land:

In the month of November the king was pleased to grant me about sixty acres of land, situated upon the Wymummee [traditional Hawaiian name for Pearl River], or Pearl-water, an inlet of the sea about twelve miles to the west of Hanaroora [Honolulu]. I immediately removed thither; and it being Macaheite time [Makahiki], during which canoes are tabooed, I was carried on men's shoulders. We passed by footpaths winding through an extensive and fertile plain, the whole of which is in the highest state of cultivation. Every stream was carefully embanked, to supply water for taro beds. Where there was no water, the land was under crops of yams and sweet potatoes. The roads and numerous houses are shaded by coconut trees, and the sides of the mountains are covered with wood to a great height. We halted two or three times, and were treated by the natives with the utmost hospitality. My farm, called Wymannoo [Waimano], was upon the east side of the river, four or five miles from its mouth. Fifteen people with their families resided upon it, who cultivated the ground as my servants. There were three houses upon the property; but I found it most agreeable to live with one of my neighbours, and get what I wanted from my own land. This person's name was William Stevenson a native of Borrowstouness. [Campbell 1967:103-104]

Of the Pearl River area, Campbell wrote,

Wymumme, or Pearl River, lies about seven miles farther to the westward. This inlet extends ten or twelve miles up the country. The entrance is not more than a quarter of a mile wide, and is only navigable for small craft; the depth of water on the bar, at the highest tides, not exceeding seven feet; farther up it is nearly two miles across. There is an isle in it, belonging to Manina, the king's interpreter, in which he keeps a numerous flock of sheep and goats. [Campbell 1967:114]

The flat land along shore is highly cultivated; taro root, yams, and sweet potatoes, are the most common crops; but taro forms the chief object of their husbandry, being the principal article of food amongst every class of inhabitants. [Campbell 1967:115]

Botanist F.J.F. Meyen visited Hawai'i in 1831 and writes of the abundant vegetation described by Campbell in the vicinity of Pearl Harbor. His account of large stretches of cultivated land surrounding Pearl Harbor suggests the presence of a viable population settlement in the area.

At the mouth of the Pearl River the ground has such a slight elevation that at high tide the ocean encroaches far into the river, helping to form small lakes which are so deep, that the long boats from the ocean can penetrate far upstream. All around these water basins the land is extraordinarily low but also exceedingly fertile and nowhere else on the whole island of Oahu are such large and continuous stretches of land cultivated. The taro fields, the banana plantations, the plantations of sugar cane are immeasurable. [Meyen 1981:63]

However, a contrasting picture of 'Ewa is recorded by the missionary William Ellis in 1823-1824, of the 'Ewa lands away from the coast:

The plain of Eva is nearly twenty miles in length, from the Pearl River to Waiarua [Wailua], and in some parts nine or ten miles across. The soil is fertile, and watered by a number of rivulets, which wind their way along the deep water-courses that intersect its surface, and empty themselves into the sea. Though capable of a high state of improvement, a very small portion of it is enclosed or under any kind of culture, and in travelling across it, scarce a habitation is to be seen. [Ellis 1963:7]

4.2.2 Missionaries

The first company of Protestant missionaries from America, part of the American Board of Commissioners of Foreign Missions (ABCFM), arrived in Honolulu in 1820. They quickly established churches in Kona on Hawai'i, Waimea on Kaua'i, and Honolulu on O'ahu. Although the missionaries were based in Honolulu, they traveled around the islands intermittently to preach to rural Native Hawaiians and to check on the progress of English and Bible instruction schools set up by local converts.

In 1828, the missionary Levi Chamberlain (1956:39–40) made a circuit of O'ahu, stopping wherever there was a large enough population to warrant a sermon or a school visit. In his trek through the 'Ewa District from Wai'anae, he stopped at Waimānalo, an *'ili* in Honouliuli, on the western border of 'Ewa. At around 11 o'clock the next day, on a Saturday, Chamberlain and his companions set out toward the east, reaching Waikele at three or four o'clock. The group did not

stop in Hō'ae'ae, suggesting that the population was too small for a school, but Waikele had two schools, an obviously larger population than Hō'ae'ae. In fact, Chamberlain decided to stay in Waikele until the next day, the Sabbath, and preach to the Native Hawaiians who lived there. A crowd of 150 to 200 gathered for the sermon. The next day at six o'clock they set out for the village of Waipi'o, which had one school. They left Waipi'o at about 8:30, and walked to Waiawa, where there were two schools. Around ten o'clock, they began their circuit again, stopping only in the *ahupua'a* of Kalauao in the 'Ewa District before they reached Moanalua Ahupua'a in the Kona District. The account does not give much information on the surroundings, but does indicate the relatively populated areas of 'Ewa, in western Honouliuli, Waikele, Waipi'o, Waiawa, and Kalauao, and the time it took to travel by foot along the trails across the 'Ewa District.

The first mission station in 'Ewa was established in 1834 at Kalua'aha near Pearl Harbor. Charles Wilkes, of the U.S. Exploring Expedition visited the missionary enclave at Honouliuli town in 1840.

At Ewa, Mr. Bishop has a large congregation. The village comprises about fifty houses, and the country around is dotted with them [...] The natives have made some advance in the arts of civilized life; there is a sugar-mill which, in the season, makes two hundred pounds of sugar a day [...] In 1840, the church contained nine hundred members, seven hundred and sixty of whom belonged to Ewa, the remainder to Waianae; but the Catholics have now established themselves at both these places, and it is understood are drawing off many from their attendance on Mr. Bishop's church. [Wilkes 1970:80–81]

4.2.3 Honouliuli Taro Lands

In early historic times, the population of Honouliuli was concentrated at the western edge of West Loch in the vicinity of Kapapahu Point in the "Honouliuli Taro Lands." This area was clearly a major focus of population due to the abundance of fish and shellfish resources in close proximity to a wide expanse of well-irrigated bottomland suitable for wetland taro cultivation. Dicks et al. (1987:78–79) concludes, on the basis of 19 radiocarbon dates and three volcanic glass dates that "Agricultural use of the area spans over 1,000 years."

Undoubtedly, Honouliuli was a locus of habitation for thousands of Hawaiians. Prehistoric population estimates are a matter of some debate but it is worth pointing out that in the earliest mission census (1831-1832) the land of Honouliuli contained 1,026 men, women, and children (Schmitt 1973:19). It is not clear whether this population relates to Honouliuli Village or district but the village probably contained the vast majority of the district's population. The nature of the reported population structure for Honouliuli (less than 20% children under 12 years of age) and the fact that the population decreased more than 15% in the next four years (Schmitt 1973:22) suggests the pre-Contact population of Honouliuli Village may well have been significantly greater than it was in the 1830s.

4.2.4 The Māhele and the Kuleana Act

During the Māhele of 1848, 99 individual land claims in the *ahupua'a* of Honouliuli were registered and awarded by King Kamehameha III. No *kuleana* land claims were made for land within the current project area or vicinity. The vast majority of the Land Commission Awards (LCA) were located in Honouliuli near the taro lands of the *'ili* of Pu'uloa and the Pu'uloa Salt

Works. The largest award (Royal Patent 6071, LCA 11216, *Āpana* [parcel] 8) in Honouliuli Ahupua'a was granted to Miriam Ke'ahi-Kuni Kekau'onohi on January 1848 (Native Register 1848). Kekau'onohi acquired a deed to all unclaimed land within the *ahupua'a*, including a total of 43,250 acres encompassing the present project area.

Samuel Kamakau relates the following about Kekau'onohi as a child:

Kamehameha's granddaughter, Ke-ahi-Kuni Ke-kau-onohi [...] was also a tabu chiefess in whose presence the other chiefesses had to prostrate and uncover themselves, and Kamehameha would lie face upward while she sat on his chest. [Kamakau 1992:208–209]

Kekau'onohi was one of Liholiho's (Kamehameha II's) wives, and after his death, she lived with her half-brother, Luanu'u Kahala'i'a, who was governor of Kaua'i (Kamakau 1992:346). Subsequently, Kekau'onohi ran away with Queen Ka'ahumanu's stepson, Keli'i-ahonui, and then became the wife of Chief Levi Ha'alelea (Kamakau 1992:280). Upon her death on 2 June 1851, all her property passed to her husband and his heirs. When Levi Ha'alelea died, the property went to his surviving wife, who in turn leased it to James Dowsett and John Meek in 1871 for stock running and grazing.

4.2.5 Population Decline

At Contact, the most populous *ahupua'a* on the island of O'ahu was Honouliuli, with the majority of the population centered on Pearl Harbor. In 1832, a missionary census of Honouliuli recorded the population as 1,026, which represented 25% of the total 'Ewa district population of 4,015 (Schmitt 1973:19).

Beginning with the time of Western Contact, however, Hawaiian populations were introduced to many virulent western diseases which began to decimate the native populations. Thus, four years following the 1832 census, the 'Ewa population had dropped to 3,423 (Schmitt 1973:9, 36), "a decrease of 592 in 4 years" (Ewa Station Reports 1836). Reverend Lowell Smith noted,

The people of Ewa are a dying people. I have not been able to obtain an exact count of all the deaths & births since the last general meeting. But my impression is that there have been as many as 8 or 10 deaths to one birth. I have heard of but 4 births on Waiawa during the year, & all of these children are dead. I have attended about 20 funerals on that one land, & 16 of these were adults. [Ewa Station Reports 1836]

Between 1848 and 1853, there was a series of epidemics of measles, influenza, and whooping cough that often wiped out whole villages. In 1853, the population of 'Ewa and Wai'anae combined was 2,451 people. In 1872, it was 1,671 (Schmitt 1968:71). The inland area of 'Ewa was probably abandoned by the mid-nineteenth century due to population decline and consolidation of the remaining people in town.

4.3 Mid- to Late 1800s

4.3.1 Ranching in Lower Honouliuli

In 1871, John Coney rented the lands of Honouliuli to James Dowsett and John Meek, who used the land for cattle grazing. In 1877, James Campbell purchased most of Honouliuli Ahupua'a, except the *'ili* of Pu'uloa, for a total of \$95,000. He then drove off 32,347 head of cattle belonging

to Dowsett, Meek, and James Robinson, and constructed a fence around the outer boundary of his property (Bordner and Silva 1983:C-12), as shown in Figure 9. He let the land rest for one year and then began to restock the ranch, so that he had 5,500 head after a few years (Dillingham 1885 in Frierson 1972:14).

In 1881, a medical student providing smallpox vaccinations around the island wrote about Campbell's property which was called the Honouliuli Ranch.

I took a ride over the Honouliuli Ranch which is quite romantic. The soil is a deep, reddish loam, up to the highest peaks, and the country is well-grassed. Springs of water abound. The 'ilima, which grows in endless quantities on the plains of this ranch, is considered excellent for feeding cattle; beside it grows the indigo plant, whose young shoots are also good fodder, of which the cattle are fond. Beneath these grows the manieizie grass, and Spanish clover and native grasses grow in the open; so there is abundant pasturage of various kinds here. As I rode, to the left were towering mountains and gaping gorges; ahead, undulating plains, and to the right, creeks and indentations from the sea. A wide valley of fertile land extends between the Nuuanu Range and the Waianae Mountains and thence to the coast of Waialua. There are many wild goats in this valley, which are left more or less undisturbed because they kill the growth of mimosa bushes, which would otherwise overrun the country and destroy the pasturage for cattle. [Briggs 1926:62-63]

The following excerpts were also written in 1880-1881, describing Honouliuli Ranch:

Acreage, 43,250, all in pasture, but possessing fertile soils suitable for agriculture; affords grazing for such valuable stock. The length of this estate is no less than 18 miles. It extends to within less than a mile of the sea coast, to the westward of the Pearl River inlet [...] There are valuable fisheries attached to this estate [...] [Bowser 1880:489]

From Mr. Campbell's veranda, looking eastward, you have one of the most splendid sights imaginable. Below the house there are two lochs, or lagoons, covered with water fowl, and celebrated for their plentiful supply of fish, chiefly mullet [...] Besides Mr. Campbell's residence, which is pleasantly situated and surrounded with ornamental and shade trees, there are at Honouliuli two churches and a school house, with a little village of native huts. [Bowser 1880:495]

Most of Campbell's lands in Honouliuli were used exclusively for cattle ranching. At that time, one planter remarked that "the country was so dry and full of bottomless cracks and fissures that water would all be lost and irrigation impracticable" (Ewa Plantation Company 1923:6-7). In 1879, Campbell brought in a well-driller from California to search the 'Ewa plains for water, and the well, drilled to a depth of 240 ft near Campbell's home in 'Ewa, resulted in "a sheet of pure water flowing like a dome of glass from all sides of the well casing" (*The Legacy of James Campbell* n.d. in Pagliaro 1987:3). Following this discovery, plantation developers and ranchers drilled numerous wells in search of the valuable resource.

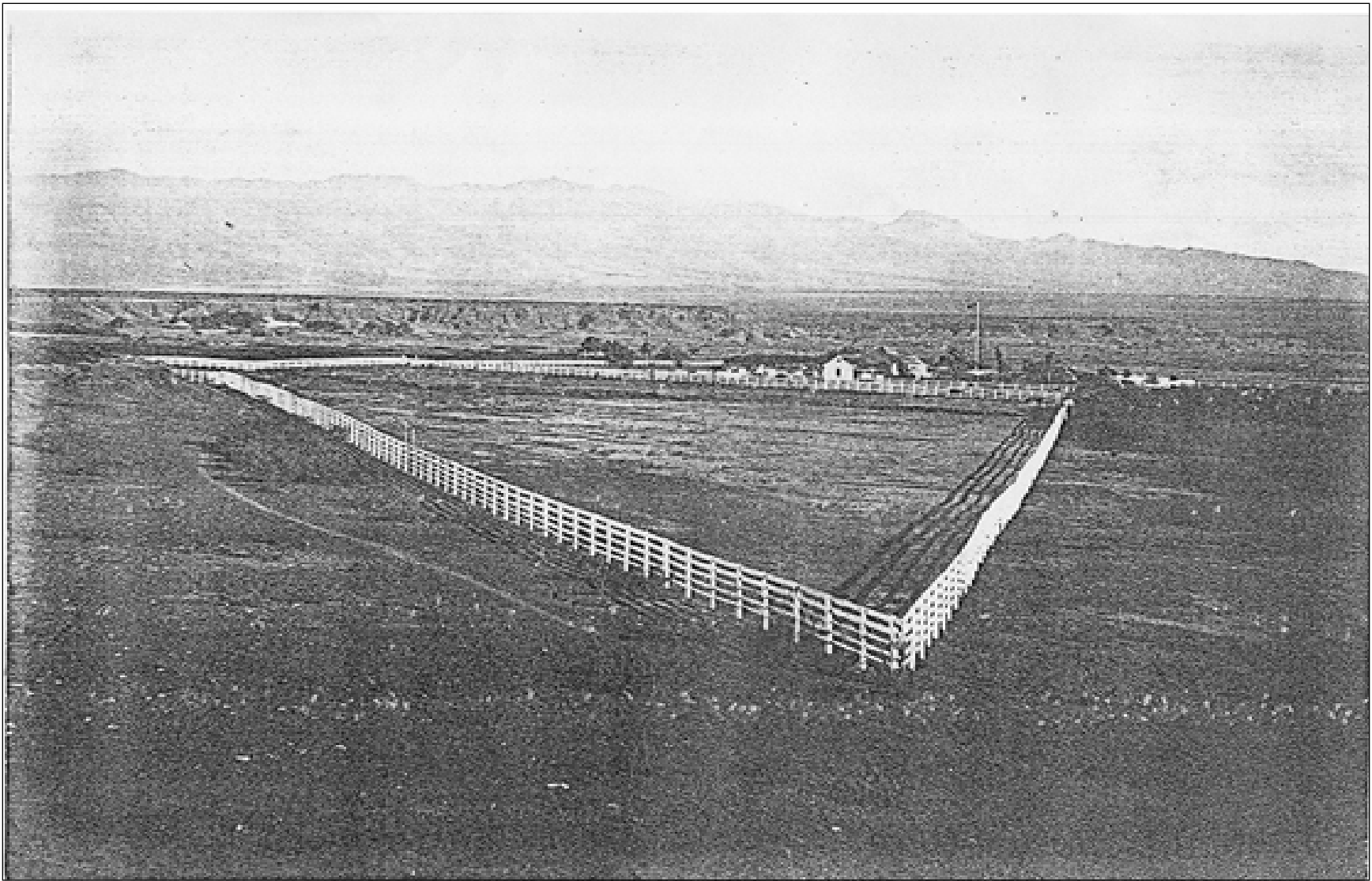


Figure 9. 1880s photograph of James Campbell's residence on the 'Ewa Plain (Hawai'i State Archives)

4.3.2 Oahu Railway and Land Company (OR&L)

In 1886, Campbell and B.F. Dillingham put together the “Great Land Colonization Scheme,” which was an attempt to sell Honouliuli land to homesteaders (Thrum 1887:74). This homestead idea failed. The failure was attributed to the lack of water and the distance from ‘Ewa to Honolulu. The water problem was solved by the drilling of artesian wells, and Dillingham decided the area could be used instead for large-scale cultivation (Pagliaro 1987:4). The transportation problem was to be solved by the construction of a railroad, which Dillingham soon began to finance under the company name Oahu Railway and Land Company (OR&L).

During the last decade of the nineteenth century, the railroad reached from Honolulu to Pearl City in 1890, Wai‘ānae in 1895, Waialua Plantation in 1898, and Kahuku in 1899 (Kuykendall 1967:III, 100). This railroad line eventually ran across the center of the ‘Ewa Plain at the lower boundary of the sugar fields (Figure 10). To attract business to his new railroad system, Dillingham subleased all land below 200 ft to William Castle, who in turn sublet the area to the newly formed Ewa Plantation Company (Frierson 1972:15). Dillingham’s Honouliuli lands above 200 ft that were suitable for sugarcane cultivation were sublet to the Oahu Sugar Company. Throughout this time, and continuing into modern times, cattle ranching continued in the area, and Honouliuli Ranch, established by Dillingham, was the “fattening” area for the other ranches (Frierson 1972:15).

Operations at the OR&L began to slow down in the 1920s, when electric streetcars were built for public transportation within the city of Honolulu and automobiles began to be used by families for transportation outside the city (Chiddix and Simpson 2004:185). The build-up to World War II turned this decline around, as the U.S. military utilized the OR&L lines to transport materials to build defense projects around the island. Historians have noted that one of the most serious mistakes made by the Japanese in their 1941 attack on Pearl Harbor was their decision not to bomb the railway infrastructure. Soon after the attack, the OR&L operated 24 hours a day, transporting war materials and troops from Honolulu to the new and expanded army, naval, and air bases. The huge navy base at Pearl Harbor had its own rail lines that connected to the OR&L rail lines.

In August 1945 the war ended, and so did OR&L’s heyday as a military transport line.

She had served her country well and proudly during the war, but operating round-the-clock on what little maintenance could be squeezed in, had taken a prodigious hit on the locomotives and track. Traffic stayed steady for a short time, but soon dropped precipitously as soldiers and sailors went home, military posts were shrunk or razed, and civilians could again get tires, gasoline and new cars. [Chiddix and Simpson 2004:257]

There was no choice but to abandon the OR&L main line, and in 1946 Walter F. Dillingham, son of B.F. Dillingham, wrote,

The sudden termination of the war with Japan changed not only the character of our transportation, but cut the freight tonnage to a third and the passenger business to a little above the pre-war level. With the increased cost of labor and material and the shrinkage in freight tonnage and passenger travel, it was definite that the road could not be operated as a common carrier. With no prospect of increased tonnage, and the impossibility of increasing rates against truck competition, your management

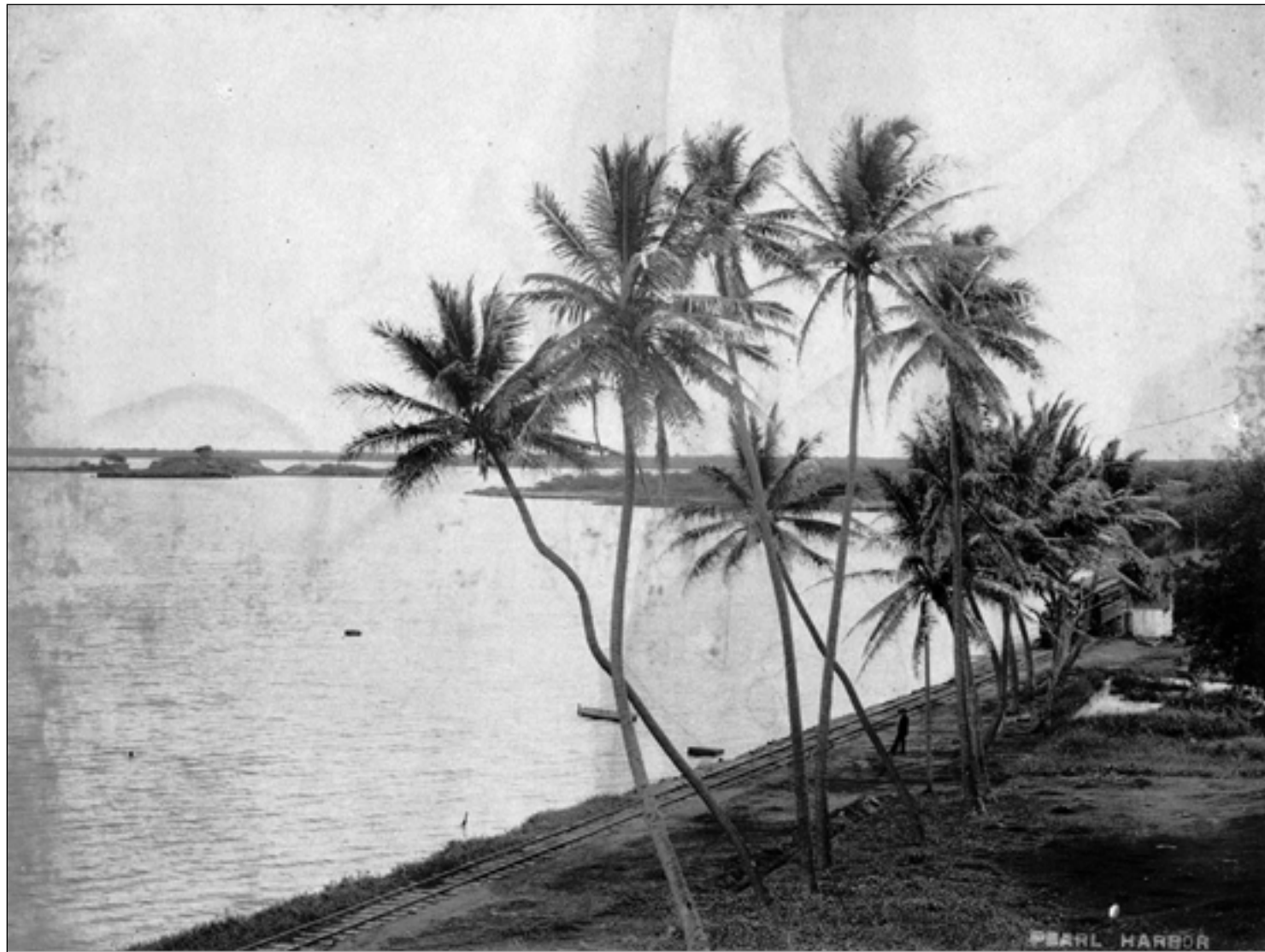


Figure 10. 1890 photograph of Pearl Harbor with OR&L railroad tracks along the coast (Honolulu Advertiser Archives)

has applied to the Interstate Commerce for authority to abandon its mainline.
[Chiddix and Simpson 2004:257]

After the war, most of the 150 miles or more of OR&L track were pried up, locomotives were sold to businesses on the U.S. mainland, and railway cars were scrapped. In 1947, the U.S. Navy took over a section of the OR&L track for their own use, to transport bombs, ammunition, and torpedoes from the ammunition magazines at Lualualei, West Loch in Pearl Harbor, and Waikele on OR&L's Wahiawā Branch to Pearl Harbor Naval Base (Treiber 2005:25–26). The track to Waipahu was abandoned in the 1950s, but the line from the magazines in Lualualei to the wharves in West Loch at Pearl Harbor remained open until 1968. Additionally, the still-existing OR&L rail line through Honouliuli has been placed on the National Register of Historic Places (Site 50-80-12-9714).

4.3.3 The Sugar Plantations of 'Ewa

Although sugarcane was already being grown as long ago as the early 1800s, the industry revealed its economic potential in 1879 when the first artesian well was drilled in 'Ewa (Ellis 1995:22). The availability of subsurface water resources enabled greater irrigation possibilities for expanding plantations besides the use of water diversions from the surrounding stream systems. This prompted the drilling of many other wells throughout the Hawaiian Islands, thereby commencing the Hawai'i sugar plantation era. By the early 1900s, all of the main Hawaiian Islands had land devoted to sugarcane production.

Agricultural field systems, railroads, and residential areas in 'Ewa were developed by three sugarcane companies, the Ewa Plantation Company, located largely in the *ahupua'a* of Honouliuli and Hō'ae'ae in the western section of 'Ewa; the Oahu Sugar Company, extending in the areas upland of the Ewa Plantation Company in central 'Ewa, including a portion of the uplands of Waiawa; and the Honolulu Plantation Company, with fields extending through Mānana to Hālawa in the eastern section of 'Ewa.

4.3.3.1 The Ewa Plantation Company

The Ewa Plantation Company was incorporated in 1890 for sugarcane cultivation (Figure 11). The first crop, 2,849 tons of sugar, was harvested in 1892. The Ewa Plantation Company was the first all-artesian plantation, and it gave an impressive demonstration of the part artesian wells were to play in the later history of the Hawaiian sugar industry (Kuykendall 1967:III, 69). As a means to generate soil deposition on the coral plain and increase arable land in the lowlands, the Ewa Plantation Company installed ditches running from the lower slopes of the mountain range to the lowlands. When the rainy season began, they plowed ground perpendicular to the slope so that soil would be carried down the drainage ditches into the lower coral plain. After a few years, about 373 acres of coral wasteland were reclaimed in this manner (Immisch 1964:3). By the 1920s, Ewa Plantation Company was generating large profits and was the "richest sugar plantation in the world" (*Paradise of the Pacific*, December 1902:19–22 in Kelly 1985:171). Figure 11 is an aerial shot taken ca. 1925.

During the twentieth century, the Ewa Plantation Company continued to grow and, by the 1930s, encompassed much of the eastern half of Honouliuli Ahupua'a. This growth impelled the creation of plantation villages to house the growing immigrant labor force working the fields. After the outbreak of World War II, which siphoned off much of the plantation's manpower, along with



Figure 11. Ewa Plantation Company sugar cane fields, Filipino Camp area, cs. 1925 (University of Hawai'i at Mānoa)

the changeover to almost complete reliance on mechanical harvesting in 1938, there was little need for the large multi-racial (Japanese, Chinese, Okinawan, Korean, Portuguese, Spanish, Hawaiian, Filipino, European) labor force that had characterized most of the early history of the plantation. The Oahu Sugar Company took control over the Ewa Plantation lands in 1970 and continued operations until 1995, when they decided to shut down sugarcane production in the combined plantation areas (Dorrance and Morgan 2000:45, 50).

During the subsequent decades of the twentieth century, sugarcane operations in 'Ewa phased out and, more recently, former cane lands have been rezoned for residential development. Structures in the area of the former plantation villages have fallen into disrepair or have been demolished. However, portions of the area including Varona Village, Tenney Village, and Renton Village have been designated the 'Ewa Villages Historic District (SIHP # 50-80-12-9786), which has been nominated for National Historic Landmark status. The Oahu Sugar Company took control over the Ewa Plantation lands in 1970 and continued operations into the 1990s.

4.3.3.2 The Oahu Sugar Company and the Waiahole Ditch

In 1889, Benjamin Dillingham organized the OR&L Company which connected the outlying areas of O'ahu to Honolulu. By 1890, the railroad reached from Honolulu to Pearl City and continued on to Wai'anae in 1895, to Waialua Plantation in 1898, and to Kahuku in 1899 (Kuykendall 1967:100).

In 1897, B.F. Dillingham established the Oahu Sugar Company (OSC) on 12,000 acres leased from the estates of John Papa 'Ī'i, Bishop, and Robinson. The Oahu Sugar Company had over 900 field workers, composed of 44 Hawaiians, 473 Japanese, 399 Chinese, and 57 Portuguese. The first sugar crop was harvested in 1899, ushering in the sugar plantation era in Waipahu (Ohira 1997).

Prior to commercial sugar cultivation, these lands were described as being "of near desert proportion until water was supplied from drilled artesian wells and the Waiahole Water project" (Condé and Best 1973:313). Dillingham had successfully promoted the Ewa Plantation Company in 1890; the sprawling sugar company was just south of and adjacent to the OSC. Artesian wells had converted those arid 'Ewa lands into a thriving plantation, and Dillingham recognized the same potential in the northern area.

Water to irrigate the upper cane fields was initially pumped to levels of 500 ft by some of the "largest steam pumps ever manufactured" (Dorrance and Morgan 2000:49). The expense of pumping water to the high elevations of the plantation led to the proposal to transport water from the windward side of the Ko'olau Mountains. The Waiahole Water Company was formally incorporated in 1913 and was originally a subsidiary of the Oahu Sugar Company. The Waiahole Ditch was designed by engineer Jorgen Jorgensen, with recommendations by engineer J.B. Lippencott and assisted by W.A. Wall. The original system, when completed, included 27 tunnels connecting with 37 stream intakes on the north side of the Ko'olau, with the main bore through Waiāhole Valley, then connecting it to the 14 tunnels on the southern side of the Ko'olau at Waiawa, and thence by ditch westward to Honouliuli, covering a total of 13.6 km (Condé and Best 1973:37). Upon its completion in 1916, the Waiahole Ditch was 35 km (21.9 miles) long and cost \$2.3 million. The 32 million gallons of daily water enabled the Oahu Sugar Company to grow to "some 20 square miles [...] ranging in elevation from 10 ft at the Waipio Peninsula [...] to 700 ft

at the Waiahole Ditch” (Condé and Best 1973:313). The ditch system, with some modifications, is still in use. It is included on the state inventory of historic places as SIHP # 50-80-09-2268.

This ditch complex first passed through Hō‘ae‘ae, bringing much needed water to the area. Kluegel describes the area:

West of Waikakalaua Gulch, through Hoaeae and to the upper boundary of Oahu Plantation in Honouliuli, the conduit consists of 12,650 feet of cement-lined ditches, and three redwood pipes 5 feet in diameter, having an aggregate length of 2,830 feet. [Kluegel 1917:96]

The Waiahole Water Co. has taken over from the Oahu Sugar Co. the Ahrens Ditch in Waiawa, the Kipapa Ditch, the Waikakalaua Ditch in Waipio, and the Hoaeae Ditch. Two redwood pipes having a total length of 1,223 feet have been laid across two gulches on the line of Hoaeae Ditch, cutting out 2 1/4 miles of ditch. The water delivered by the Waiahole System is chiefly used on newly planted cane on land above the lift of the pumps. [Kluegel 1917:107]

The Waiahole Ditch System crossed through the western portion of the present project area.

Dillingham’s *mauka* lands in western Honouliuli that were unsuitable for commercial sugar production remained pasture for grazing livestock. From 1890 to 1892, the Ranch Department of the OR&L Company desperately sought water for their herds of cattle, tapping plantation flumes and searching for alternative sources of water. Ida von Holt shared this account of her husband Harry’s (Superintendent of the OR&L Ranch Department) search for water in the foothills of the Wai‘anae Range:

One of those places is on the old trail to Pālehua, and had evidently been a place of which the Hawaiians had known, for its name is Kalo‘i (the taro patch), and even in dry weather water would be standing in the holes made by the cattle, as they tried to get a drop or two. [von Holt 1985:136]

The spring was located along the upper slopes of the southern face of Kalo‘i Gulch. A second account is given of the discovery of spring water in an area over the ridge on the north side of Kalo‘i Gulch:

Shouting to the men to come over with their picks and shovels, he [Harry von Holt] soon got them busy clearing away lots of small stones and earth. Almost at once they could see that there were evidences of a paved well, and at about three feet down they came upon a huge flat rock, as large around as two men could span with their arms. Digging the rock loose and lifting it to one side, what was their astonishment to find a clear bubbling spring! [von Holt 1985:138]

Following the discovery, two old Hawaiians began to explain to Von Holt about the spring:

Finally he [Harry von Holt] got them to explain that the spring, called ‘Waihuna’ (Hidden Spring) had been one of the principal sources of water for all that country, which was quite heavily populated before the smallpox epidemic of 1840 [...] A powerful Kahuna living at the spring had hidden it before he died of the smallpox, and had put a curse on the one who disturbed the stone, that he or she would surely die before a year was out. [von Holt 1985:138–140]

4.4 1900s

4.4.1 The U.S Military Development of Pearl Harbor

In 1876, the Reciprocity Treaty between the United States and the Kingdom of Hawai'i concluded with the provision that Hawai'i would not "lease or relinquish sovereignty to another country or any harbor, etc." In 1887, the treaty was renewed and amended and allowed the United States the "exclusive right to enter the harbor of Pearl River, in the Island of Oahu, and to establish and to maintain there a coaling and repair station for the use of vessels of the United States" (Judd 1971:128).

After Hawai'i became a territory of the United States in 1899, a Pacific base that could be used as a staging area for the Spanish-American war began to be developed. Early in the twentieth century, the U.S. Government began acquiring the coastal lands of 'Ewa for development of a naval base at Pearl Harbor. In 1901, the U.S. Congress formally ratified annexation of the Territory of Hawai'i, and the first 1,356.01 acres of Pearl Harbor land were transferred to U.S. ownership. The U.S. Navy began a preliminary dredging program in 1901, which created a 30-ft-deep entrance channel measuring 200 ft wide and 3,085 ft long. In 1908, money was appropriated for 5 miles of entrance channel dredged to an additional 35 ft down (Downes 1953) (Figure 12). Funding for the construction of dry docks and other support facilities was also approved in 1908. In 1909, the government appropriated the entire Waipi'o peninsula from the 'Ī'i estate for the Pearl Harbor Naval Station and Shipyard.

Additional dredging to deepen and widen the channel was conducted in the 1920s. In 1931, the Navy built an ammunition depot at West Loch on a 213-acre parcel it had bought from the Campbell Estate. Construction of a new depot in Lualualei Valley and at West Loch Harbor began in 1931.

In the early 1930s, the U.S. Navy leased 700 acres of the Campbell Estate to build Ewa Field in Honouliuli, a base with a mooring mast for Navy dirigibles. Although the mast was completed, the program was abandoned before the *Akron*, the airship designated for the mast, was built. In 1937, 18 miles of roads were built in the coastal Honouliuli area, and in 1939-1940 the U.S. bought 3,500 acres of land in this area (Landrum et al 1997:62–67), to build several other military camps and installations, including Barbers Point Naval Air Station, at the site of the old mooring mast.

4.4.2 History of Camp Malakole

The wartime history of Camp Malakole (1940–1946) has been well described by Robert H. Albert (1980). The Camp Malakole Military Reservation, also known as the Honouliuli Military Reservation (Malakole Campsite), included 30 ha (75.01 acres) acquired by the Secretary of War in the late 1930s. In 1939, the area was chosen as a firing range for the Sixty-Fourth Coast Artillery (AA) Regiment, stationed out of Fort Shafter (Albert 1980:303). Under the command of Colonel Charles W. Wing, the regiment cleared the land and set up six batteries along the coast (Bennett 2003:50).

The camp was selected to be the base of the 251st Coast Artillery (Anti-Aircraft) Regiment on 16 September 1940. This camp was to function as a defensive gun and firing position sector for the regiment. Based out of California, this unit was the first National Guard Unit to be ordered outside the continental United States during peace time (Albert 1980:303). By the end of 1940, the



Figure 12. Dredging in Pearl Harbor ca. 1908 (Hawai'i State Archives)

soldiers stationed at Camp Malakole spent half the day setting up the field defensive gun and half the day building the camp (Albert 1980:304) (Figure 13 and Figure 14). The camp construction was officially finished in February 1941 (Bennett 2003:55).

The camp was meant to house approximately 2,000 men and included 48 barracks buildings, 12 mess halls, nine magazines and storage houses, five officers' quarters, seven showers, latrines, dispensary, officers' mess, headquarters buildings, fire house, post office, regimental day room, movie theater, laundry, car repair shop, gas station, guard houses, and photo lab (Bennett 2003:55).

By 1941, the imminent threat of war was becoming more apparent. During the first half of 1941, the population of the camp grew from 1,200 to 2,400. On 7 December 1941, the soldiers stationed at Camp Malakole had just come back from a week-long island alert and had placed the guns and ammunition in storage bunkers (Albert 1980:304). Nevertheless, a hasty defense effort was able to defend against Japanese dive bombers attacking the camp and the unit is credited with shooting down two Japanese bombers. Three soldiers stationed at Camp Malakole—Sargent Henry Blackwell, Sargent Warren Rassmusen, and Corporal Clyde Brown—were the first American soldiers killed in the attack. They were taking private flying lessons that morning out of John Rodgers Airport (Harding 2013).

In 1942, the Regiment deployed to the Fiji Islands to establish anti-aircraft defense for the airfield there. From there, they participated in campaigns in Guadalcanal, Bougainville, and Luzon in the Philippines (Albert 1980:305).

After the Regiment left in 1942, Camp Malakole became a weapons training school for live-firing ranges of anti-aircraft and anti-tank training. By 1943, the camp became an important staging area for cargo coming into and out of O'ahu, as well as soldier replacement for personnel entering oversea theaters. Service reports from the camp report that over 43,000 troops were billeted and staged through the camp in the final 32 months of war, averaging over 1,100 troops a month (Albert 1980:306). The camp was a strategic tool during the United States' involvement in the war. It served as an important area for the logistical effort in the war and the main anti-aircraft gunnery school on O'ahu. After the end of World War II, the camp was abandoned. There is little information available about exactly when or why the camp was abandoned. Due to the construction of the adjacent industrial park and Chevron Oil Refinery, little remains of the camp.

4.4.3 Honouliuli National Monument (Honouliuli Internment Camp)

Following the Japanese Navy's attack on Pearl Harbor on 7 December 1941, Lieutenant General Walter C. Short of the Army and Joseph Poindexter, Governor of Hawai'i, issued a proclamation declaring the Territory of Hawai'i under martial law and suspending the writ of *habeas corpus* (the requirement for a person under arrest to be brought before a judge or into court) (U.S. Department of the Interior 2014:6-7). Civilian courts were closed and the military established its own courts with authority over civilians (Kashima 2003:69). While under martial law, the territory of Hawai'i was governed by Army generals Walter Short, Delos Emmons, and Robert C. Richardson, Jr. (U.S. Department of the Interior 2014:6–7).

The military conducted some 50,000 trials of civilians throughout the islands during the war, with a 99 percent conviction rate in the 22,000 cases on the island of O'ahu in 1942 and 1943. The average trial lasted five minutes, and legal counsel was seldom at hand once it became common knowledge that the presence of a defense

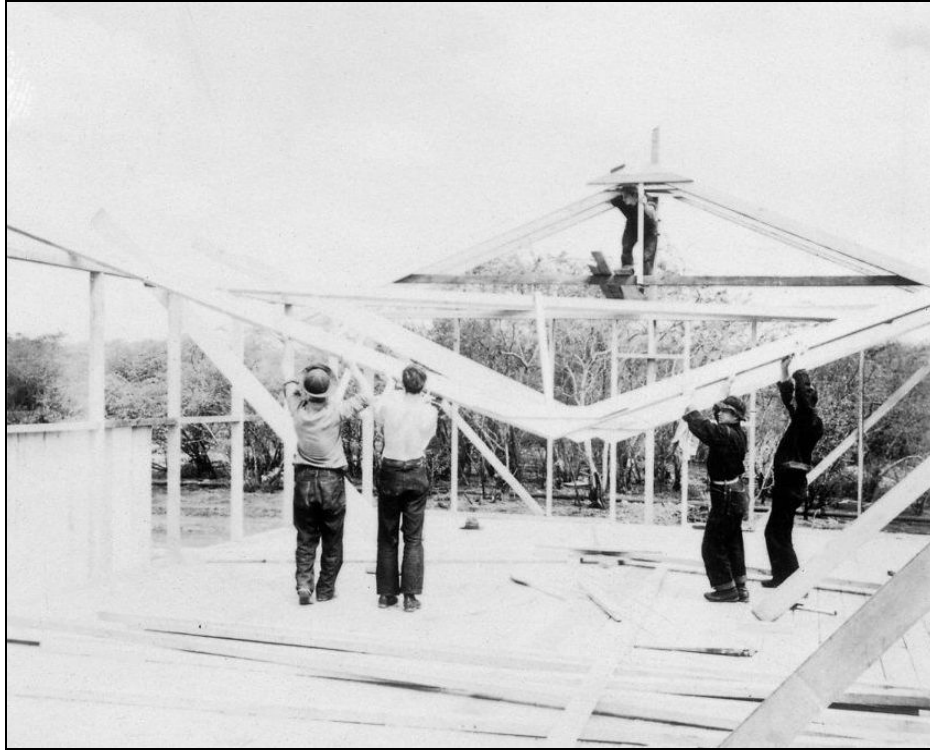


Figure 13. Camp Malakole soldiers raising the barracks roof (Bandel in Albert 1980:336)

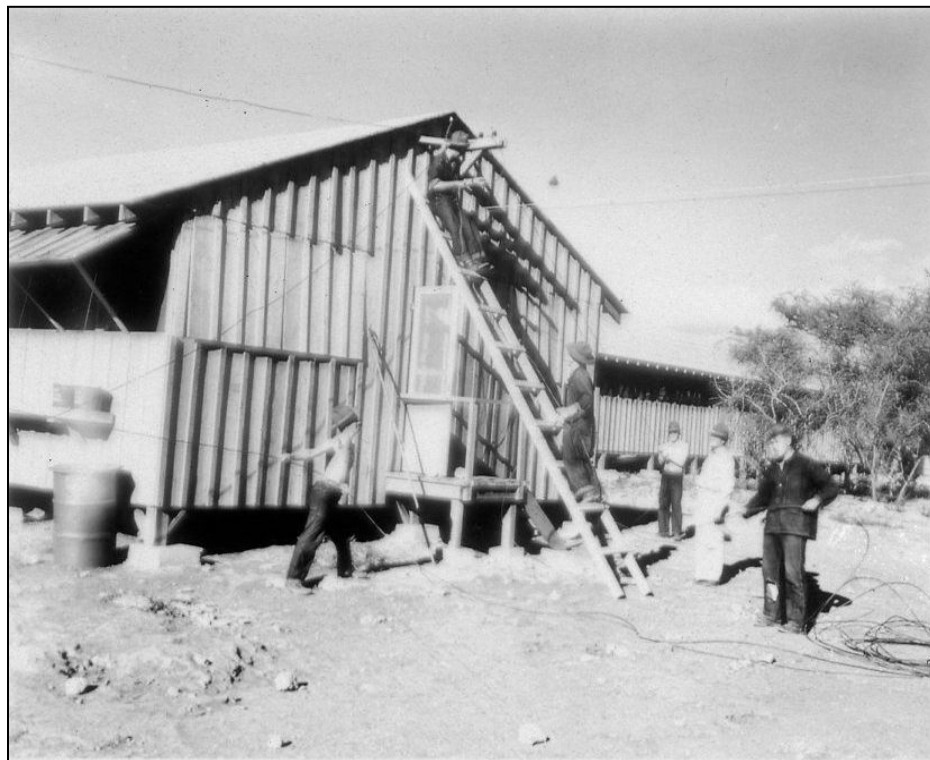


Figure 14. Camp Malakole soldiers wiring the barracks (Bandel in Albert 1980:336)

lawyer would ensure a harsh sentence (Scheiber and Scheiber 2003). [U.S. Department of the Interior 2014:6-7]

Persons of Japanese and European ancestry in Hawai'i suspected of disloyalty to the United States were rounded up and imprisoned by the U.S. military and the Federal Bureau of Investigations (FBI) (U.S. Department of the Interior 2014:xii). Most internees were held at the U.S. Immigration Station on O'ahu prior to being transferred to internment camps on the U.S. mainland (U.S. Department of the Interior 2014:xii).

The War Department ordered the internment of all individuals who had been identified on the custodial detention list (Kashima 2003, 69). These included leaders in the Japanese community who had significant community influence, were educated, were teachers, or had access to transportation or communications. They included members of the Japanese consulate, and community members who served in an unofficial consular capacity for those wanting to communicate officially with Japan on legal issues of births, deaths, marriage, and other business. They also included Shinto and Buddhist priests, Japanese language teachers, those with radios, and farmers and fishermen with access to boats and other transport. Martial arts instructors, travel agents, those with access to the press, and Kibei (American citizens of Japanese ancestry who had been educated in Japan) were also targeted. In some cases, those arrested were considered 'guilty by association' or were identified by informants, some without just cause. [U.S. Department of the Interior 2014:6-7]

In 1943, the Honouliuli Internment Camp was constructed to intern citizens, resident aliens, and prisoners of war. Located in Honouliuli Gulch, east of the project area, the camp was the "last, largest, and longest-used World War II confinement site in Hawai'i," holding approximately 320 internees and nearly 4,000 prisoners of war (U.S. Department of the Interior 2014:xiv).

4.4.4 Development in the Vicinity of the Project Area

Much of the *mauka* lands in western Honouliuli, including ridges and deep gulches, were unsuitable for commercial sugar cultivation and remained pasture land for grazing livestock. The Donn 1906 map suggests the present project area was at the edge of sugarcane cultivation at that time (Figure 15). By 1920, however, much of the lands of Honouliuli were used for commercial sugarcane cultivation (Frierson 1972:18).

A 1919 map (Figure 16) shows ditches, reservoirs, roads, and railroad lines downslope of the project area. This map shows an unimproved road alignment just south of the project area, understood as the Pālehua Road, approximating a traditional Hawaiian footpath into the uplands.

A 1922 map (Figure 17 and Figure 18 showing annotations), however, shows the called out Pālehua trail as jogging into the southwest portion of the project area. This 1922 map shows pineapple fields in at least 13 locations among the foothills of the southeast Wai'anae Range. The nearest of these pineapple fields wrapped around Pu'u Kapua'i some 500 m to the northwest. At least six (typically quite small) plantation camps were scattered along the bottom of these foothills with the nearest being about 500 m to the north of the project area. The Kupihau Ranch Station is shown about 2.6 km to the north. The water troughs and tanks shown upslope of the ranch station attest to the cattle operations in the vicinity at that time.

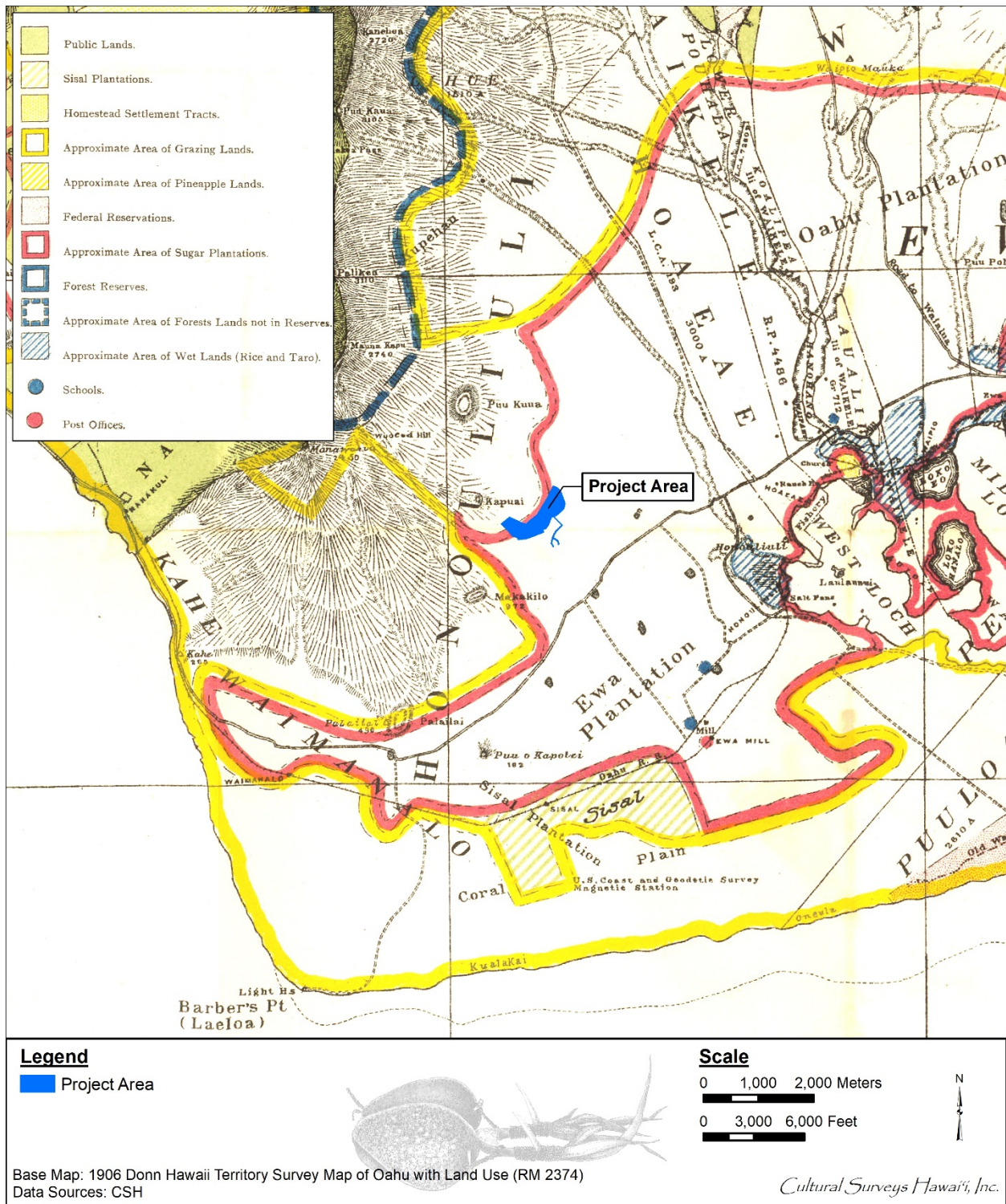


Figure 15. Portion of the 1906 Donn Hawaii Territory Survey map showing breakdown of land use in southwest O'ahu

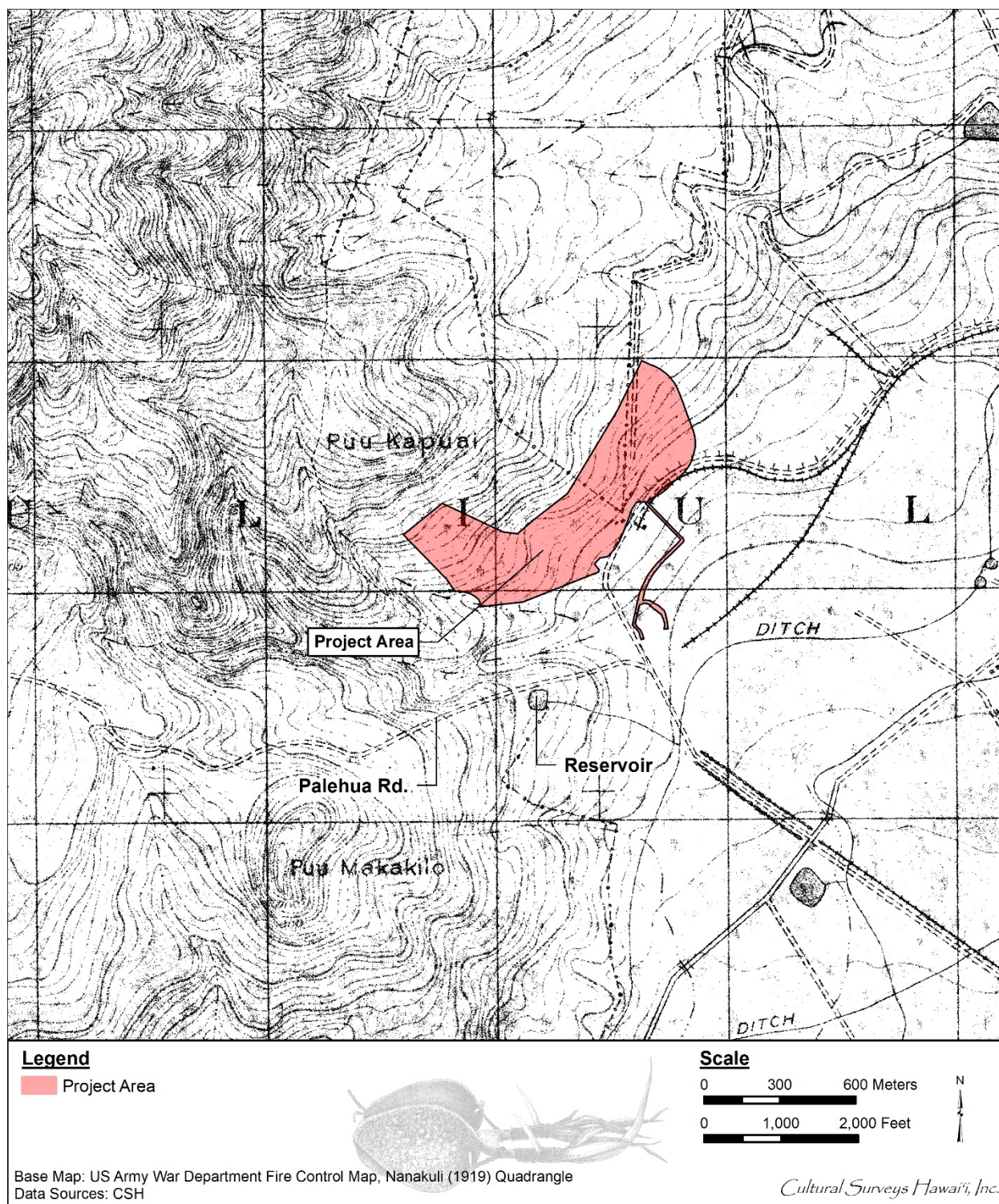


Figure 16. Portion of 1919 U.S. Army War Department fire control map, Nanakuli quadrangle showing the project area

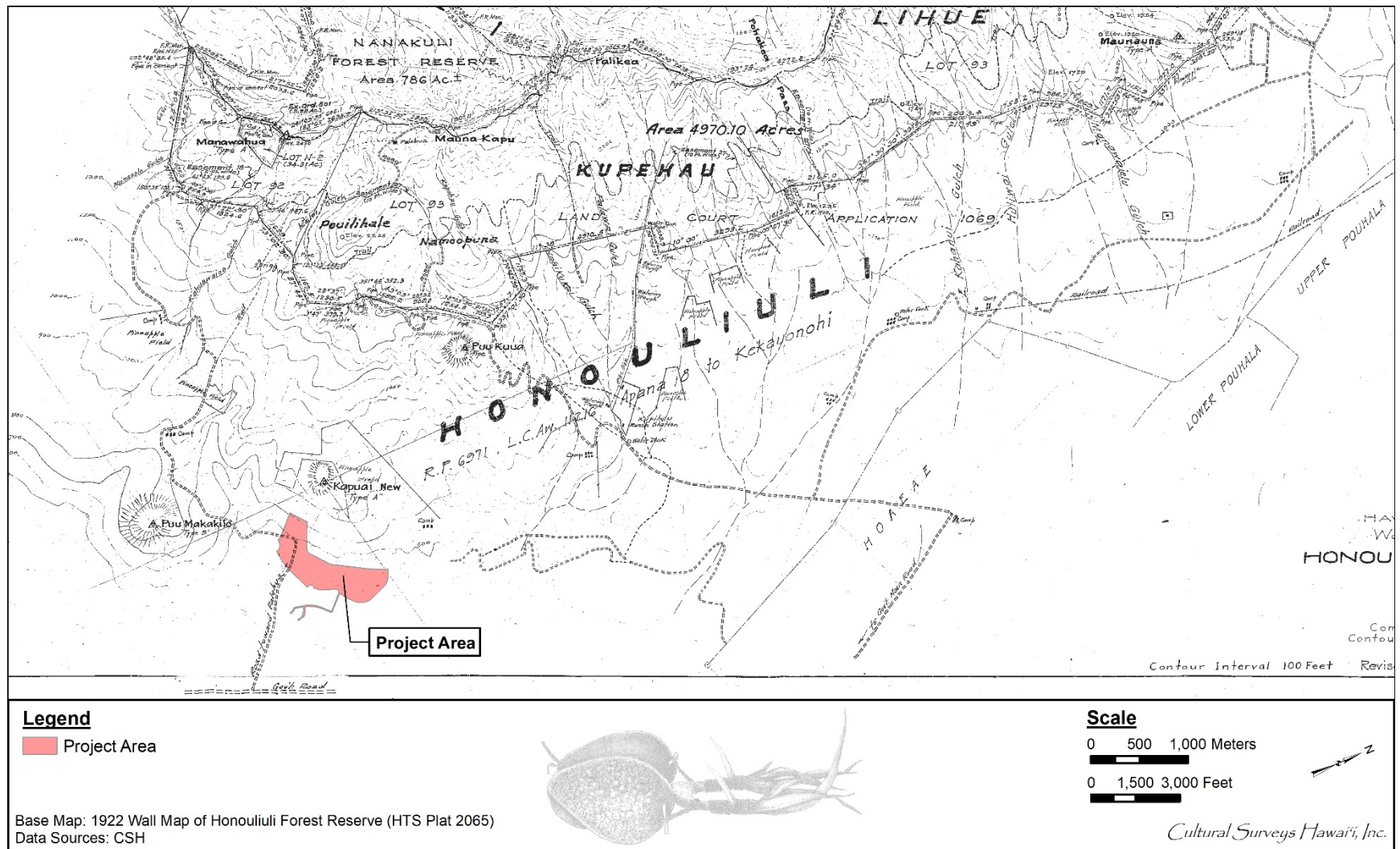


Figure 17. Portion of 1922 Wall map of Honouliuli Forest Reserve showing the location of the project area

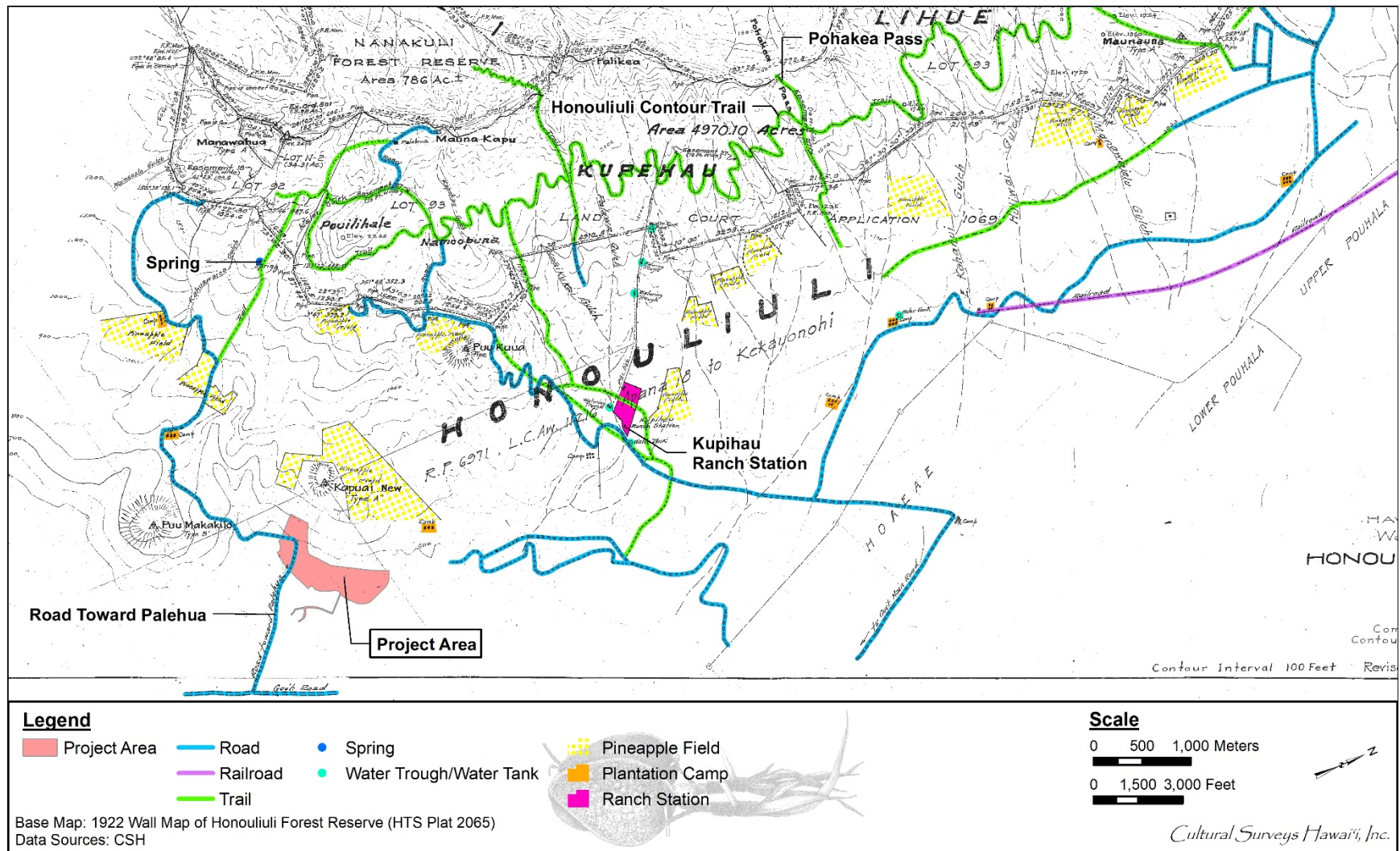


Figure 18. 1922 Wall map of Honouliuli Forest Reserve showing the location of the project area with annotations

By 1925 (Figure 19) most of the project area is depicted as within Oahu Sugar Company plantation Field 30. The extreme upslope end of the project area still appears to be outside the area of sugarcane cultivation, in keeping with the depiction on the 1906 Donn map (compare with Figure 15).

In the late 1920s, the main residential communities were at the northeast edge of the 'Ewa Plain and the largest community was still located at Honouliuli Village. 'Ewa was primarily a plantation town, focused around the sugar mill, with a public school as well as a Japanese school. Additional settlement, in Waipahu, centered around the Waipahu sugar mill operated by the Oahu Sugar Company. However, small plantation camps were scattered within the extensive sugarcane fields (as indicated in Figure 18).

By 1936, however, "Pump Camp 5" had been established on either side of a pipeline that bisected the present project area (Figure 20). The 1936 map indicates approximately seven houses on the northeast side of the pipeline and 17 houses on the southwest side of the pipeline within the present project area at that time. The central pipeline extended downslope from the Waiahole Ditch to a large pump house structure that still exists just southeast (outside) of the project area. The alignment of the Waiahole Ditch crossing the western portion of the project area, and a roughly parallel road just upslope, are clearly depicted. It appears that a spur plantation railroad serviced Pump Camp 5 connecting to the northeast and continued a short distance to the southeast.

The 1943 map (Figure 21) shows much the same scene, though the unimproved road crossing the west portion of the project area now wraps around Pu'u Kapua'i. Additional new, unimproved roads suggest the expansion of sugarcane fields. The extensive system of fences depicted upslope indicate cattle ranching was still a significant enterprise.

Historic maps of the Makakilo area indicate a lack of any other significant development in the area into the 1940s. Major land use changes came to western Honouliuli when the U.S. military began development in the area. Military installations were constructed near the coast as well as in the foothills and upland areas. Barbers Point Military Reservation (a.k.a. Battery Barbers Point from 1937–1944), located at Barbers Point Beach, was used beginning in 1921 as a training area for firing 155 mm guns (Payette 2003). Also in the vicinity were Camp Malakole Military Reservation (a.k.a. Honouliuli Military Reservation), used from 1939, and Gilbert Military Reservation, used from 1922–1944. Barbers Point Naval Air Station (NAS), in operation from 1942 into the 1990s, was the largest and most significant base built in the area. It housed numerous naval and defense organizations, including maritime surveillance and anti-submarine warfare aircraft squadrons, a U.S. Coast Guard Air Station, and components of the U.S. Pacific Fleet.

Fort Barrette (a.k.a. Kapolei Military Reservation and Battery Hatch), located atop Pu'uokapolei to the southwest, was in use from 1931 to 1948 for housing four 3-inch anti-aircraft batteries (Payette 2003). In the 1950s, the site was used as a NIKE missile base. Palailai Military Reservation, located atop Pu'u Pālailai in Makakilo to the west, was in service from 1921, housing Battery Palailai and Fire Control Station B (Payette 2003). Fire Control Station A was located atop Pu'u Makakilo approximately 1.4 km to the southwest of the project area. From 1942 to 1945 the Pu'u Makakilo Training Area, including lands in and around Pu'u Makakilo, was used for military training during World War II (Environment Hawai'i 1992).