

**FINAL—Archaeological Monitoring Report for the University of Hawai‘i at Mānoa Snyder Hall Demolition Project at 2538 McCarthy Mall, Waikīkī Ahupua‘a, Kona District, Island of O‘ahu, Hawai‘i**

**TMK: (1) 2-8-023:003 (por.)**



**Prepared For:**

University of Hawai‘i at Mānoa  
2002 East-West Road  
Honolulu, Hawaii 96822



October 2022

**Keala Pono** 

Keala Pono Archaeological Consulting, LLC • PO Box 1645, Kaneohe, HI 96744 • Phone 808.381.2361



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## **MANAGEMENT SUMMARY**

Archaeological monitoring was conducted for ground disturbing activity associated with the demolition of Snyder Hall on the University of Hawai‘i at Mānoa (UH) campus on TMK: (1) 2-8-023:003 (por.) in Mānoa, Waikīkī Ahupua‘a, Kona District, on the Island of O‘ahu. No archaeological sites, features, or cultural materials were encountered, and stratigraphy within the small project area consisted of a single layer of fill.

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## INTRODUCTION

At the request of Nordic PCL Construction, Inc., on behalf of the University of Hawai‘i at Mānoa (UH Mānoa), Keala Pono Archaeological Consulting conducted archaeological monitoring for the Snyder Hall Demolition Project at TMK: (1) 2-8-023:003 (por.) in Mānoa, Waikīkī Ahupua‘a, Kona District, on the island of O‘ahu. The primary focus of the monitoring was on the identification and appropriate treatment of historic properties that might be affected during ground disturbance.

Archaeological monitoring was conducted in accordance with an archaeological monitoring plan (McElroy et al. 2021) reviewed and accepted by the Hawai‘i State Historic Preservation Division (SHPD) (Log No. 2020.01802, Doc No. 2103SCH13, see Appendix). This report meets the requirements and standards of state historic preservation law, specifically Chapter 6E of the Hawai‘i Revised Statutes, and the *Rules Governing Standards for Archaeological Monitoring Studies and Reports* (Hawai‘i Administrative Rules §13–279).

The report begins with a description of the project area and a historical overview of land use and archaeology in the area. The next section presents methods used in the fieldwork, followed by the results of the monitoring. Project results are summarized and recommendations are made in the final section. Hawaiian words and technical terms are defined in a glossary at the end of the document.

### Project Location and Environment

The project area is situated on the campus of UH Mānoa, near the Varney Circle (Figure 1). This campus is located at the mouth of the valley of Mānoa, which is in the ahupua‘a of Waikīkī in the larger district or moku of Kona (Kanahele 1995). In modern times, the Kona district of O‘ahu has been renamed the district of Honolulu, and therefore the project area is also located in Mānoa, Honolulu, O‘ahu. The valley of Mānoa sits on the southwestern flanks of the Ko‘olau mountain range. To the south of Mānoa is another area of Waikīkī Ahupua‘a called Mō‘ili‘ili, and beyond Mō‘ili‘ili, is Waikīkī proper, situated at the coastline. To the east of Mānoa Valley is the valley of Pālolo with the ridges and gulches of Paliluahine, Wa‘ahila, and Kalaepōhaku separating the two valleys. To the west of Mānoa Valley is the valley of Makiki with the ridges and gulches of Pu‘u O Mānoa, ‘Ualaka‘a, and Pu‘u Kākea separating the two valleys. Adjacent to and east of the project area, also on the flat lands at the mouth of Mānoa Valley, is a locale known for its underground water source, called Kānewai. Adjacent to and west of the project area, also on the flat lands at the mouth of Mānoa Valley, is another locale known for its underground water source, called Kapunahou.

TMK: (1) 2-8-023:003 is a 41.68 ha (103 ac.) parcel owned by the State of Hawai‘i of which .30 ha (.75 ac.) is covered by the project area (Figure 2). The project area lies on the UH Mānoa campus between Webster Hall to the west, Edmondson Hall to the east, McCarthy Mall to the south, and a central courtyard to the north. The study area lies roughly 3 km (1.9 mi.) from the coast at an elevation of approximately 30 m (100 ft.). The closest perennial stream to the project area is Mānoa Stream, which is roughly 400 m (1,300 ft.) to the east.

The Kona district in general, has been known since ancient times to be one of O‘ahu’s “richest in natural resources and most pleasant for abundant and comfortable living,” and except for periodic winter storms, the district was known for its “trade winds sweeping through low gaps in the Ko‘olau range at the top of Moanalua, Kalihi, Nu‘uanu and Manoa Valleys... [with] abundant rain, ever flowing streams, springs, pools, verdant interior valleys, broad slopes and well-watered lowlands, fishpond areas, harbors, beaches, and lagoons” (Handy et al. 1991:473–474). Mānoa Valley in particular sees a good amount of rainfall, varying from about 406 cm (160 in.) annually at the head of the valley to 89 cm (35 in.) at its mouth (Bouslog et al. 1994).

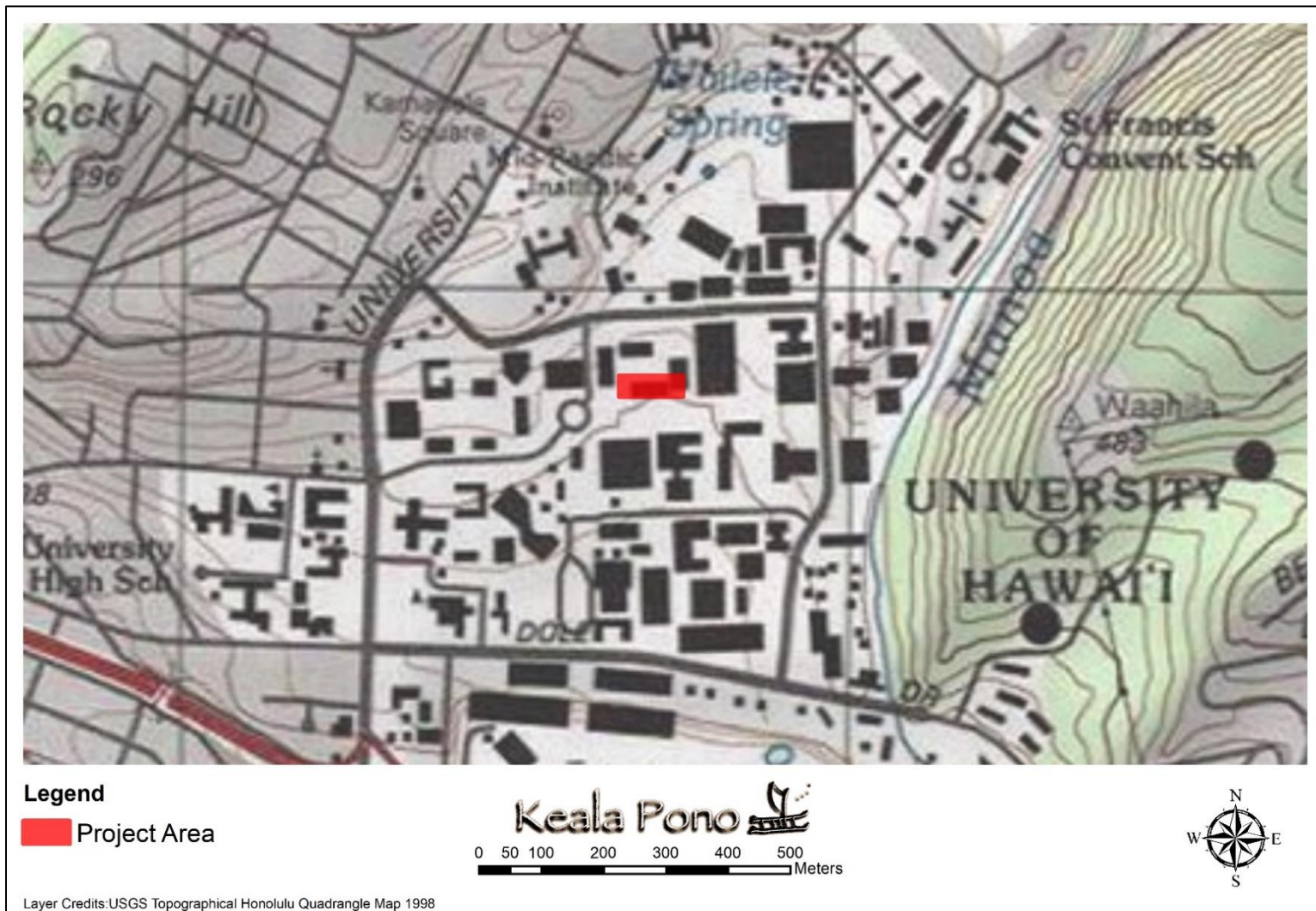


Figure 1. Project area on a 7.5 minute USGS 1998 Honolulu quadrangle map (USGS 1998).



The project area in Mānoa has soils of the Makiki Series, namely, Makiki stony clay loam, 0–3% slopes (MIA) (Figure 3). The Makiki series are “well-drained soils on alluvial fans and terraces... formed in alluvium mixed with volcanic ash and cinders. They are nearly level [with elevations] from 20 to 200 feet” (Foote et al. 1972:92).

The soil survey conducted by the USDA Soil Conservation Service further defines the project area’s soil type:

Makiki stony clay loam, 0 to 3 percent slopes (MIA).

This soil is similar to Makiki clay loam, 0 to 2 percent slopes, except that there are enough stones to hinder cultivation. These stones are angular and make up about 15 percent of the soil by volume. The depth to basalt or cinders varies from 20 to 60 inches. Basalt outcrops are common. The soil is neutral to slightly acid. This soil is almost entirely in urban use. (Capability classification IIIs, nonirrigated). (Foote et al. 1972:92)

Subclass IIIs soils have severe limitations because of stoniness, unfavorable texture, shallowness, or low water-holding capacity. The soils are well-drained, are more than 51 cm (20 in.) deep and have slopes of 0 to 8% (Foote et al. 1972:154).

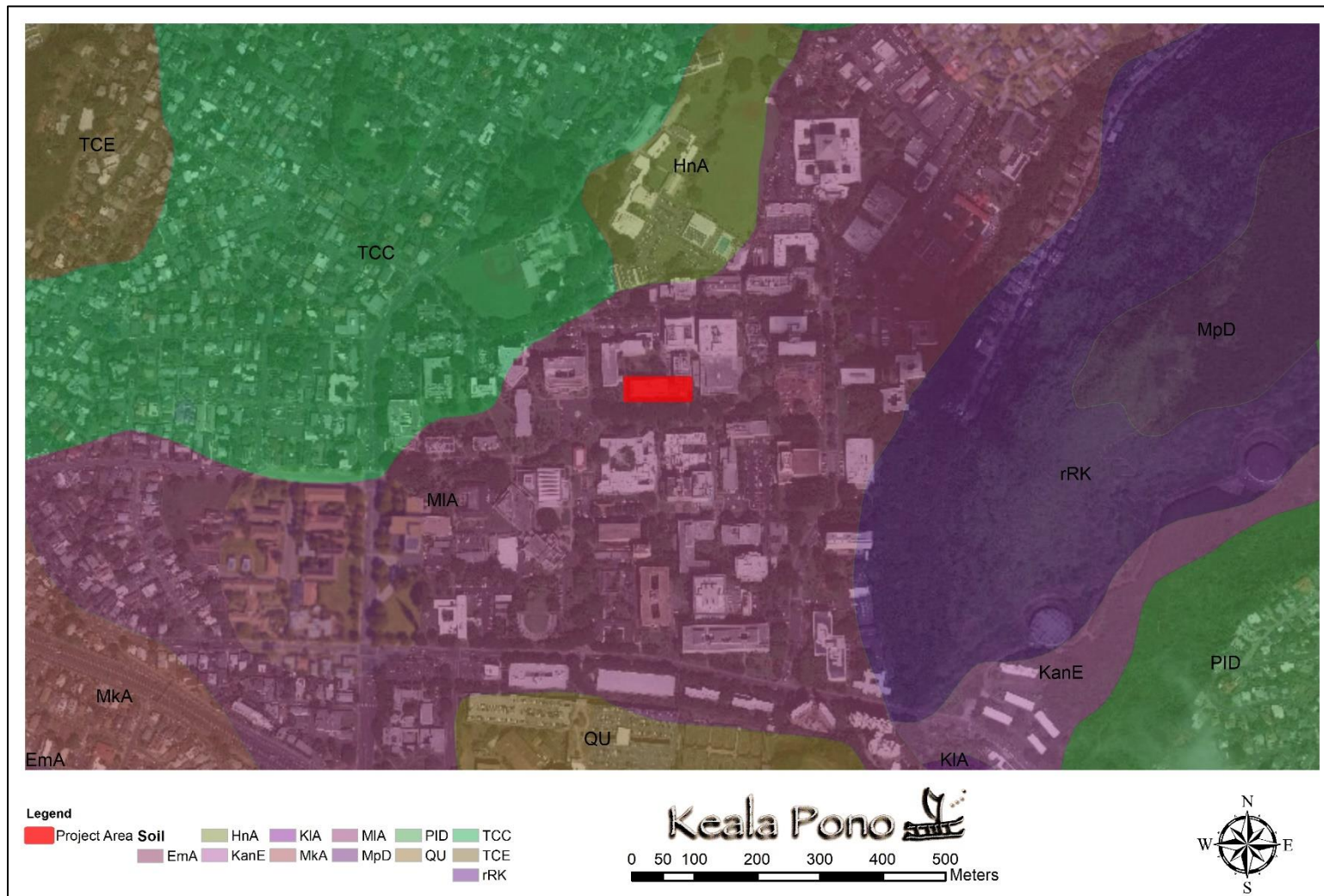
Also within the vicinity are Makiki stony clay loam, 0–2% slopes (MkA); Tantalus silty clay loam, 8–15% slopes (TCC); Tantalus silty clay loam, 15–40% slopes (TCE); Hanalei silty clay, 0–2% slopes (HnA); Ewa silty clay loam, 0–2% slopes (EmA); Kaena very stony clay, 10–35% slopes (KanE); Kawaihapai clay loam, 0–2% slopes (KIA); Pamoia silty clay, 5–20% slopes (PID); and quarry (QU). The valley slope and ridge consist of Manana silty clay, 15–25% slopes (MpD); and rock land (rRK).

## **The Project**

The project consisted of the demolition of Snyder Hall and the removal of its subgrade concrete structural foundations as well as excavation for the removal and replacement of utilities. Ground disturbance for the project encompassed a .30 ha (.75 ac.) area and reached a maximum of 2.5 meters below surface (mbs), however most of the excavations remained between 0.6–1.4 mbs. Ground disturbance was primarily conducted with an excavator, however a mini excavator and hand tools were also utilized. After demolition, grass was planted to create a field over the project area. Minor excavations were also conducted to install a new sprinkler system.

A State Historic Preservation Division (SHPD) HRS Chapter 6E-8 Historic Preservation Review letter (Log No. 2019.01296, Doc No. 1909TGM06) states that an archaeological inventory survey has not been carried out for the project and that recent archaeological monitoring nearby did not identify historic properties (see Appendix). However, because of the occurrence of human burials in other areas of the UH Mānoa Campus and the lack of archaeological data within the project area, SHPD requested archaeological monitoring for identification purposes for this project. Additionally, SHPD requested architectural mitigation including completion of a Historic American Building Survey (HABS) long report and an update to the University of Hawai‘i at Mānoa’s 2012 Cultural Resources Management Plan. The archaeological monitoring plan (Log No. 2020.01802, Doc No. 2103SCH13) and the HABS report (Log No. 2020.01999, Doc No. 2103JF04) were accepted by SHPD before construction began (see Appendix).





**Figure 3. Soils in the vicinity of the project area.**

## BACKGROUND

A brief historic review of Mānoa is provided below, to offer a better holistic understanding of the use and occupation of the project area. In the attempt to record and preserve both the tangible (e.g., traditional, and historic archaeological sites) and intangible (e.g., mo'olelo, 'ōlelo no'eau) culture, this research assists in the discussion of anticipated finds. Research was conducted at the Hawai'i State Library, the University of Hawai'i at Mānoa libraries, the SHPD library, and online on the Office of Hawaiian Affairs website and the Waihona Aina, Huapala, and Ulukau databases. Archaeological reports and historical reference books were among the materials examined.

### Mānoa in the Pre-Contact Era

Native traditions describe the formation (literally the birth) of the Hawaiian Islands and the presence of life on and around them, in the context of genealogical accounts... As this Hawaiian genealogical account continues, we find that these same god-beings, or creative forces of nature who gave birth to the islands, were also the parents of the first man (Hāloa), and from this ancestor, all Hawaiian people are descended. It was in this context of kinship, that the ancient Hawaiians addressed their environment. (Maly and Maly 2003)

The history of Mānoa begins with the history of O'ahu Island:

O'ahu is also a new name, given in memory of an ancestor of the people of O'ahu. Lolo-i-mehani, Lalo-waia, and Lalo-oho-aniani were the ancient names of O'ahu. O'ahu was the child of Papa and Lua... and because O'ahu was a good chief and the people lived harmoniously after the time of Wākea *mā*, O'ahu's descendants gave the name of their good chief to the island --- O'ahu-a-Lua. (Kamakau 1991:129)

According to Kanahale (1995), the first major migrations by Pacific Islanders to O'ahu probably occurred around AD 300. Although initial settlement of the island was focused on the windward side, by AD 600 permanent settlements appeared on the leeward side of the Ko'olau Mountains, in the ahupua'a of Waikīkī, of which Mānoa is a subdivision. While the coastal waters of the ahupua'a provided an abundance of marine resources, the original inhabitants of Waikīkī Ahupua'a also depended upon the natural resources harvested from the inland valleys such as Mānoa. These upland resources included pili grass for house thatching; mamaki for clothing; naio for timber; kukui for food, medicine, and lamp oil; lama, 'ōhi'a 'ai and uhiuhi for timber; 'olonā for cordage; 'ie'ie for weaving; and the 'ōhi'a lehua for house building and weapon making. In more recent research, Kirch looked at the dating and re-dating of sites in Hawai'i and elsewhere across the Pacific, and suggested that the earliest settlements in Hawai'i occurred somewhere around AD 800 to 1000 (Kirch 2010:126–127).

The earliest settlements of the ahupua'a were patriarchal and centered around the family unit. Many generations later, after immense population growth, there was the need for strong societal organization under a chiefly class (Kanahale 1995). One of the most famous of the early O'ahu chiefs, Kūali'i, who reigned as king over the entire island in the 1700s, had a temple, or heiau, named Kūkaō'ō in Mānoa. It is said that the Kūkaō'ō temple had originally been built by the legendary menchune people who once controlled all of Mānoa Valley. "After Kualii obtained possession [of Kūkao], he made it the principal temple fort of a system of heiaus" (Sterling and Summers 1978:286). Besides Kūkaō'ō, at least four other heiau are recorded for Mānoa. They are Pu'uhonua, Hipawai, Kawapōpō, and Hakika (Sterling and Summers 1978). Although these heiau were situated at various locations throughout the valley, and not necessarily at the current project site, their collective presence is a testament to the significance of Mānoa as a whole.



Since Mānoa is rarely mentioned in the writings of Hawai‘i’s earliest historians, much of pre-contact Mānoa is inferred by reading the historical records describing Honolulu or Waikīkī. One early Hawaiian historian who did specifically mention Mānoa in his writings, was John Papa ‘Ī‘Ī. ‘Ī‘Ī illustrated the well-known trails that people used on O‘ahu (Figure 4). His description of the trail that connected Mānoa to the rest of Honolulu was published in the 1800s, but it is safe to assume that such an important and widely used path pre-dated the arrival of the Westerners in the late 1700s:

Our description of the trails of the royal town [Honolulu] is finished, but we have not yet told of the trails going to lower Waikiki, Kamoiliili, and Manoa. A trail went on to Kalia. From Kalia it ran eastward along the borders of the fish ponds and met the trail from lower Waikiki. At Kawaiahao a trail passed in front of the stone house of Kaina, late father of Kikaha. The trail went above Kalanipuu’s place, along the stream running down from Poopoo to the sea, close by Kaaihee in Makiki, to Puu o Manoa, then below Puupueo, where a trail branched off to go to upper Kaaipu and Kahoiwai, and another to go below Kaahulue, to Kapulena and Kolowalu. (‘Ī‘Ī 1959:92)

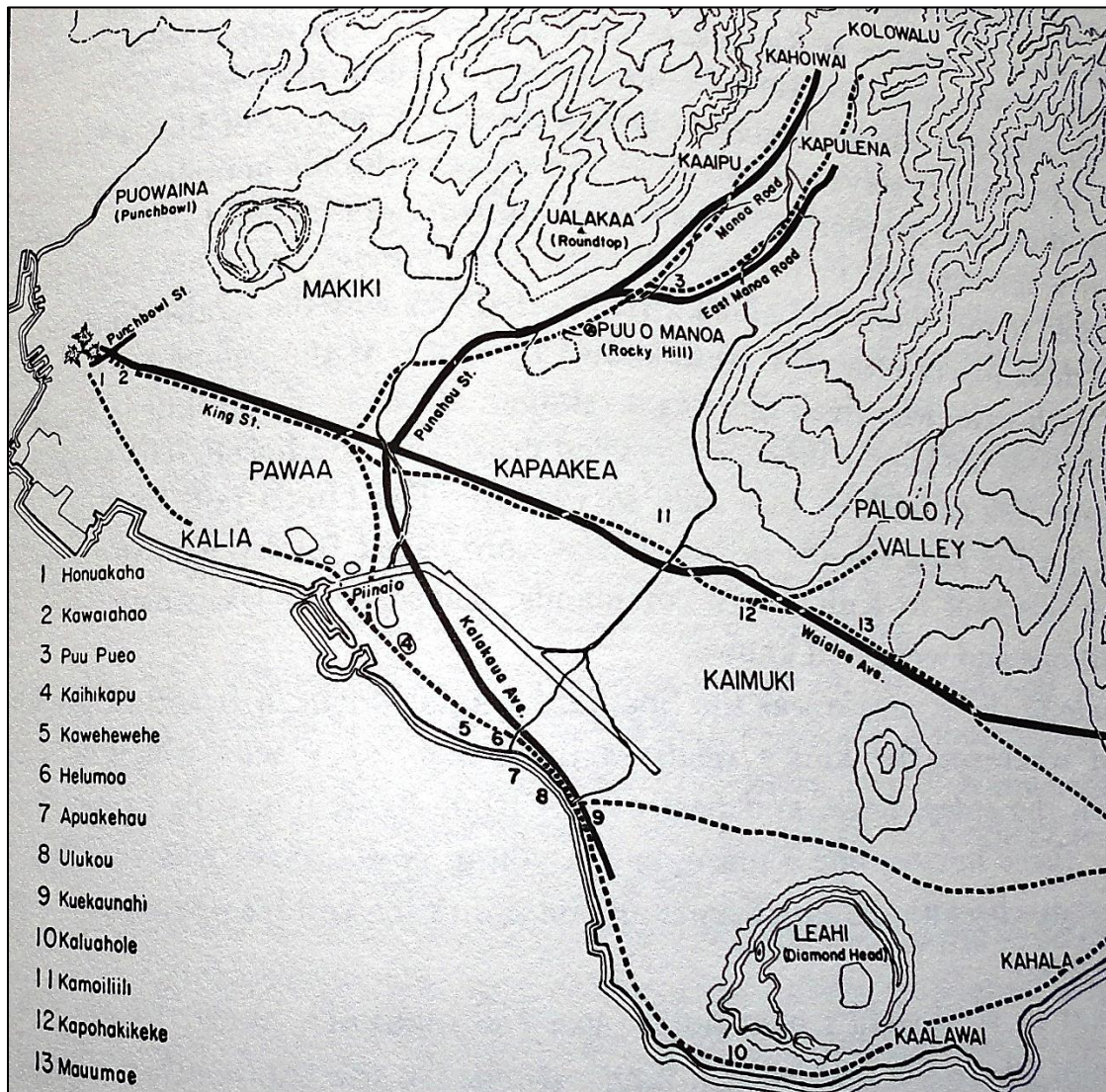


Figure 4. Trails in the vicinity of the project area. Adopted from ‘Ī‘Ī (1959:93).

Besides the chronicles of the early Hawaiian historians, there are other means by which Hawai‘i’s history has been preserved. One often overlooked source of history is the information embedded in the Hawaiian landscape. Hawaiian place names “usually have understandable meanings, and the stories illustrating many of the place names are well known and appreciated...The place names provide a living and largely intelligible history” (Pukui et al. 1974:xii).

The current project area and the places around it are listed in *Place Names of Hawaii* (Pukui et al. 1974:72, 73, 85, 142, 146, 153, 178, 194, 197, 201, 204, 208, 212, 214, 218, 223), along with the meanings of their names, as follows:

Ka-lae-pōhaku... Area in Honolulu... and gulch. *Lit.*, the stone promontory.

Kāne-wai... underground pool... Mānoa, Honolulu. *Lit.*, water [of] Kāne.

Makiki... stream, valley, and section... of Honolulu... probably named for a type of stone used as weights for octopus lures.

Mānoa... Land section, stream, waterfall, valley, field... of Honolulu... Part of the floor of Mānoa valley was covered with a lava flow from Sugarloaf cone 10,000 to 20,000 years ago. The Mānoa campus of the University of Hawai‘i is built on this flow... *Lit.*, vast.

Mānoa-ali‘i. Land division on the ‘Ewa side of Mānoa Valley (west of a line from Pu‘u-luahine to Rocky Hill). Honolulu. *Lit.*, royal Mānoa (chiefs lived here).

\*NOTE: The dividing line is defined as a line from Rocky Hill to Paliluahine, not Pu‘uluahine (Sterling and Summers 1978).

Mānoa-kanaka. Land opposite Mānoa-ali‘i, Honolulu. *Lit.*, commoners’ Mānoa (commoners lived here).

Mō-‘ili‘ili... section... of Honolulu... Kama-pua‘a chased two beautiful women here. They vanished and he rooted; water burst forth, almost drowning him... Formerly, Ka-mō-‘ili‘ili... *Lit.*, pebble lizard. (*Mō-* is short for *mo‘o*, a lizard destroyed by Pele’s younger sister, Hi‘iaka; his body was cut to pieces and formed a hill across from Kū-hiō School.)

Pālolo. Section... of Honolulu... stream, valley... *Lit.*, clay.

Puna-hou... section... of Honolulu... formerly called Ka-puna-hou... *Lit.*, new spring. (The god Kāne thrust his staff into the ground here to get water. According to another story, an old couple lived by a pandanus tree and each dreamed of a spring; when the man offered red fish and pulled up the pandanus tree, water oozed out.)

Pu‘u-Kākea. Cinder cone on the Ko‘olau range on west side of Mānoa Valley, Honolulu, named for a storm wind associated with Mānoa; also called Sugarloaf.

Pu‘u-luahine... Hill at the head of Mānoa Valley, Honolulu, named for a *mo‘o* woman called Luahine (old woman), who moved here from Haha‘i-one with her two sons, Kū-mauna (mountain upright) and Pae-hala (pandanus row). The sons were turned to stone, the mother into the hill. \*NOTE: On at least one map, there is only a hill named Paliluahine annotated, but not Pu‘uluahine. It is not clear if these two names are interchangeable for the same hill.

Pu‘u-o-Mānoa. Old name for Rocky Hill, Puna-hou, Honolulu... *Lit.*, Hill of Mānoa.

Rocky Hill. Hill behind Puna-hou School, Honolulu, formerly known as Pu‘u-o-Mānoa.

Sugarloaf. Mountain behind Honolulu. See Pu‘u-Kākea.

‘Uala-ka‘a. Old name for Round Top... Puna-hou section, Honolulu. *Lit.*, rolling sweet potato (a rat bit a sweet potato, causing it to roll downhill and sprout; Kamehameha I planted many sweet potatoes here, which, on being dug, rolled downhill).

Wa‘ahila... ridge separating Mānoa and Pālolo valleys... Also the name of a beneficent Mānoa rain, and of a chiefess who excelled in a dance named for her.

Wai-kīkī... beach, park... Honolulu. *Lit.*, spouting water (said to be named for swamps later drained to form Ala Wai Canal; also the name of a chiefess).

### **Subsistence and Traditional Land Use**

As mentioned earlier, Mānoa contained several heiau, and it was a land of significant natural resources. “Extensive taro cultivation in Mānoa Valley indicates that the region supported a large population of Hawaiians” in the pre-contact (pre-1778) era (Bouslog et al. 1994:10).

By the time the first haole (foreigners) arrived at the end of the eighteenth century, the vast floor was covered with scattered hale pili (grass houses), and lo‘i fed by ‘auwai (irrigation ditches) leading from the streams. The banks of the lo‘i were covered with ti, sugar cane and sweet potatoes. Other plantings would be often found in small gullies and along the lower mountain slopes: more bananas, wauke (the paper mulberry) and yams, as well as other food and utilitarian crops. In the hanging valleys along the ridges defining the valley, the light green of the candlenut or kukui trees would have been conspicuous. A view from ‘Ualaka‘a (Round Top) would have shown a patchwork quilt pattern --- the mirror-like water of the flooded, unplanted lo‘i interspersed with the pale green of young growing taro; the dark green of full-grown taro; and the brown of drained, unplanted lo‘i. (Bouslog et al. 1994:9)

The high productivity of the district was directly related to its abundance of water resources. Sterling and Summers (1978) mention five well-known Mānoa springs/streams by name: Kanewai, Kumulae, Kapunahou, Kawaiakeakua, and Kahaia mano. And at least seven waterfalls in Mānoa are known by name, as shared by Mānoa matriarch, Maka Woolsey: Wai‘ihiiki, Wai‘ihinui, Luaaulaia, Nāniuapō, Wa‘aloa, Kahuwaiiki, and Waiakekua (Bouslog et al. 1994:6). Indeed, the harnessing of these water resources provides the context for this district being called “the great wet-taro lands of Manoa” (Handy et al. 1991:270). A brief snapshot is given to describe the agricultural engineering used to water the Mānoa taro fields:

The preferred method of wet-taro cultivation, wherever terrain and running water permitted, was in terraces (lo‘i) irrigated from streams by means of carefully engineered ditch systems. In small lo‘i the water flows from one terrace into the next below, but each large lo‘i, especially on flat land, requires a separate ditch, which allows the water to enter through openings (puka wai) in the lo‘i bank... Separate small tunnels from the main ditches are typical of Manoa on Oahu, and of Ke‘anae on Maui, where the level of the terraces over a large area is almost constant. (Handy et al. 1991:92)

### **Mo‘olelo**

As mentioned earlier, Hawaiian place names were connected to traditional stories through which the history of the places was preserved. These stories were referred to as “mo‘olelo, a term embracing many kinds of recounted knowledge, including history, legend, and myth. It included stories of every kind, whether factual or fabulous, lyrical or prosaic. Mo‘olelo were repositories of cultural insight and a foundation for understanding history and origins, often presented as allegories to interpret or illuminate contemporary life... Certainly many such [oral] accounts were lost in the sweep of time, especially with the decline of the Hawaiian population and native language” (Nogelmeier 2006:429, 430). Still, a number of traditional stories managed to be recorded as Hawaiian society transitioned from an oral culture to a written one, and among these were several versions of stories connected to the Mānoa area.

Perhaps one of the most telling aspects of the mo'olelo of Mānoa is that they enshrine some of the exploits of the gods Kāne and Kanaloa. These two deities are credited with going around O'ahu at the dawn of time and securing new water sources which would provide sustenance to future generations of Hawaiians. It's no wonder that Kāne and Kanaloa are woven into the prehistory of Mānoa with the numerous streams, springs, pools and waterfalls that the district is known for. Two of these water sources, Kapunahou and Kawaiakeakua, are directly attributed to the workings of Kāne and Kanaloa:

There was a famous terraced area below what is now the Punahou School campus. The water for lo'i here came from Ka Punahou, "The new spring." This was one of the springs opened by Kane at the behest of his brother Kanaloa. "Kauawaahila afterwards made some kalo patches [there], and people attracted by the water and consequent fertility of the place came and settled about... More and more kalo patches were excavated and the place became a thriving settlement. The spring became known as Ka Punahou, and gave its name to the surrounding place" (Nakuina in Handy et al. 1991:480)

Here is Manoa, Kane and Kanaloa found most excellent awa, and Kanaloa cried, "O my brother, this is awa surpassing any other we have found; but where shall I go to find water?" Kane replied, "Here in this hill side is water." So he took his staff and struck it fiercely against the precipice by which they had found awa. Rapidly the rocks were broken off. The precipice crept back from the mighty strokes of the god and a large pool of clear, cool water nestled among the great stones which had fallen. There they mixed awa and water and drank again and again until they sleep of the drunkard came and they rested by the fountain they had made. This pool is still at the head of Manoa Valley, and to this day is called Ka-Wai-a-ke-Akua (The water provided by a god). The servants of hundreds of chiefs have borne water from this place to their thirsty masters. (Sterling and Summers 1978:288–289)

Another deity associated with freshwater resources is the demi-god Kamapua'a. He, too, is incorporated in the mo'olelo of Mānoa. According to the story, Kamapua'a rooted the earth at Kamō'ili'ili near the mouth of Mānoa Valley, and because of that, the people of that locale had access to the freshwater stream which flowed underground:

At Kamoiliili Kamapuaa saw two beautiful women coming from the stream which flows from Manoa Valley. He called to them, but when they saw his tattooed body and rough clothing made from pigskins they recognized him and fled. He pursued them, but they were counted as goddesses, having come from divine foreign families as well as Kamapuaa. They possessed miraculous powers and vanished when he was ready to place his hands upon them. They sank down into the earth. Kamapuaa changed himself into the form of a great pig and began to root up the stones and soil and break his way through the thick layer of petrified coral through which they had disappeared. He first followed the descent of the woman who had been nearest to him. This place was the Honolulu side of the present Kamoiliili church. Down he went through the soil and stone after her, but suddenly a great flood of water burst upward through the coral almost drowning him. The goddess had stopped his pursuit by turning an underground stream in to the door which he had thrown open.

After this narrow escape Kamapuaa rushed toward Manoa Valley to the place where he had seen the other beautiful woman disappear. Here also he rooted deep through earth and coral, and here again a new spring of living water was uncovered. He could do nothing against the flood, which threatened his life. The goddesses escaped and the two wells have supplied the people of Kamoiliili for many generations, bearing the name, "The wells, or fountains, of Kamapuaa." (Sterling and Summers 1978:282)

Another mo'olelo about Mānoa is the story of Kahalaopuna, a girl whose family is immortalized in the natural features of Mānoa Valley. Beckwith illustrates how the story of Kahalaopuna is manifested in the Mānoa landscape:

The parents of Kahalaopuna are the twin brother and sister Ka-au-kuahine [Ka ua Kuahine?] (The rain of the mountain ridge) and Ka-hau-kani (which names the Manoa wind), and children of Akaaka and Na-lehua-akaaka, names of a projecting spur of the ridge back of Manoa and the red lehua bushes that grow upon it. Rainbows still play about her former home and Manoa girls are said to inherit her beauty. She lives under tapu in a house called Kahaimano [stream?] on the way to the spring of the Water-of-the-gods [Kawaiakeakua?]. (Beckwith 1970:152)

Mary Kawena Pukui added that when Kahalaopuna died, “Her mother melted into the rain called Luahine-o-Manoa [Kuahine?]... [and] her father became two things, a hau tree and the wind in that valley [Kahaukane or Kahaukani?] (Sterling and Summers 1978:289).

### **Oli and Mele**

The noteworthiness of specific locales in Hawaiian culture is further bolstered by their appearances in traditional chants. An oli refers to a chant that is done without any accompaniment of dance, while a mele refers to a chant that may or may not be accompanied by a dance. These expressions of folklore have not lost their merit in today’s society. They continue to be referred to in contemporary discussions of Hawaiian history, identity, and values.

One such chant that has been documented is the prayer of Kihanuilūmoku-wahine and her supernatural retinue of menhune and mermaids. Kihanuilūmoku-wahine had a garden in Mānoa Valley, and the people of Mānoa would hear the chanting of the supernatural beings. The significance of this chant is that it portrays the land of Mānoa as being a land of agricultural abundance. In English, the chant of Kihanuilūmoku-wahine is shared:

[Kihanuilūmoku-wahine and her entourage] would plant taro, sweet potatoes, bananas, hō‘i‘o bamboo, ki, hala, ginger, lehua and other trees. The maidens frolicked in the pool. Cleansed, they chanted a prayer to the gods for abundant growth. The kanaka down the valley could hear the songs and they would say, “Kiha is planting in her garden.” This is the prayer [chant]:

O moon of the night of Hua,  
that brings fruit and food to the plants  
Here is the kalo plant,  
The life of the land,  
I give to the earth, Honua;  
Here is the sweet potato branch  
I plant for thee and me;  
Here is the shoot of sugar cane,  
So sweet to taste and eat,  
The emblem of desire’s success;  
I place it in the earth, Mother Earth.  
O moon of the night of Hua,  
Keep the plants green and alive  
Until Māhealani, the Full Moon, comes;  
For when Māhealani is here,  
Kulu, the Moon of Moisture will follow  
And the plants will show a bud.  
The comes Kaloukūlua, thy companion,

To the plants they will bring two shoots,  
And help thee, Hua, to bear the fruit.  
So, Kāne, God of Water,  
And Hina, Mother of Mists,  
Send your aloha down to us in moonlit mists.  
Let it sweep along the hillside,  
Keep the new growth a-growing  
That your people from the night will live. (Bouslog et al. 1994:213–214)

### **‘Ōlelo No‘eau**

Like oli and mele, traditional proverbs and wise sayings, known as ‘ōlelo no‘eau, have been another means by which the history of Hawaiian places has been recorded. In 1983, Mary Kawena Pukui published a volume of close to 3,000 ‘ōlelo no‘eau that she collected throughout the islands. The introductory chapter of that book reminds us that if we could understand these proverbs and wise sayings well, then we would understand Hawai‘i well (Pukui 1983).

Many ‘ōlelo no‘eau that reference Mānoa have been recorded. Three of these depict the characteristics of the rains and winds of Mānoa. Another points out the boundaries of the chiefly lands and the commoners’ lands within Mānoa. And finally, the last ‘ōlelo no‘eau hints at the traditional association of Mānoa and the greater district of Waikīkī. The sayings are presented below as they appear in Pukui’s publication (Pukui 1983:13, 35, 36, 74, 169, 170, 233).

Ako Nu‘uanu i ka hālau loa a ka makani; ‘āko Mānoa i ka hale a ke ehū.

*Gathered in Nu‘uanu is the longhouse of the wind; gathered in Mānoa is the house of rainy sprays.*

E ho‘i ka u‘i o Mānoa, ua ahiahi.

*Let the youth of Mānoa go home, for it is evening.*

Refers to the youth of Mānoa who used to ride the surf at Kalehuawehe in Waikīkī. The surfboards were shared among several people who would take turns using them. Those who finished first often suggested going home early, even though it might not be evening, to avoid carrying the boards to the hālau where they were stored. Later the expression was used for anyone who went off to avoid work.

He Kākea, ka makani kulakula‘i kauhale o Mānoa.

*It is the Kākea, the wind that pushes over the houses of Mānoa.*

Applied to one who goes about shoving others around. The Kākea was the strongest wind of the valley.

Ka ua Kuahine o Mānoa.

*The Kuahine rain of Mānoa.*

The rain is famed in the songs of Mānoa. According to an old legend, Kuahine was a chiefess, the wife of Kahaukani. Their daughter Kahalaopuna was so beautiful that rainbows appeared wherever she was. Once, two gossiping men claimed they had made love to her. This so angered her betrothed husband that he beat her into unconsciousness. She was revived by an owl god, but after hearing more gossip, her betrothed killed her. In grief, her mother became the Kuahine rain. Her father adopted two forms --- the wind Kahaukani and a hau tree. It was said that this tree moaned in grief whenever a member of royalty died.



Mānoa ali'i, Mānoa kānaka.

*Mānoa of the chiefs, Mānoa of the commoners.*

In ancient days an invisible line was drawn from the center of the low, green hill, Pu'u Luahine, at the head of Mānoa Valley, to the center of Rocky Hill back of Punahou School. Looking up into the valley, Mānoa of the commoners was on the right side. Here lived the commoners and here too, the excreta of the chiefs was secretly buried by the kahu moka (protector and keeper of the excreta). This was an important position, for if any of the excreta fell into the hands of an enemy, the chief might die through sorcery. On the left side of the valley lied the chiefs and their retainers

### **Mānoa in the Historic Era**

When the first Westerners arrived in the Hawaiian archipelago in 1778, the islands were not yet united under one sovereign. At that time, Mānoa and the entire island of O'ahu were under the rule of Chief Kahahana. In 1783, Chief Kahahana's reign was ended with the invasion and victory of Chief Kahekili of Maui. This would forever be the end of O'ahu's independence as a separate island kingdom. When Chief Kahekili died in 1794, control of O'ahu went to his son Kalanikūpule. The following year, Chief Kamehameha of Hawai'i Island invaded O'ahu to engage Kalanikūpule in battle. Kamehameha overwhelmed Kalanikūpule's warriors, effectively gaining control of all the islands from Hawai'i to O'ahu. Eventually, Kamehameha would make a peaceful agreement with Chief Kaumuali'i of Kaua'i, bringing that island and Ni'ihau into the fold and thereby uniting the Hawaiian archipelago under one rule (Kamakau 1996; Kanahale 1995).

### **Early Historical Accounts of Land Use in the Mānoa Area**

The written history of the Hawaiian Islands in the historic era shows that at least from the time of Kamehameha's unification of the islands to the overthrow of the monarchy, many royals favored the lands of Mānoa. 'Ī'i (1959) suggests that Kamehameha the Great farmed and lived part of the time in Mānoa near 'Ualaka'a, and Kamakau explains the reason why Kamehameha valued these lands:

Ua lako loa 'o Kamehameha i nā mea kaua haole, a pēlā nō ho'i i nā ali'i a pau. 'A'ohe makemake nui 'ia 'o ke dālā a me ka lolo. A 'ike 'o Kamehameha, 'o ka 'uala ka 'ai i makemake nui 'ia e ka haole, a 'o ka uhi kahi, no Laila, mahi iholā 'o Kamehameha i ka 'uala a nui, 'o ia ho'i 'o 'Ualaka'a ma Mānoa a ma Makiki. A mahi iholā i ka uhi ma Ka'akopua, a ma Honolulu, 'o ia ho'i 'o Kapāuhi, a kū'ai akula me nā haole. (Kamakau 1996:168)

*Kamehameha was well-supplied with foreign weapons and equipment for war, as were all of the chiefs. There was no great desire for money or clothing. Kamehameha knew that sweet potatoes were the crop that the foreigners really liked, and yams too, so Kamehameha cultivated a lot of land with sweet potatoes, that was at 'Ualaka'a and Mānoa and Makiki. And he farmed yams at Ka'akopua and Honolulu, indeed at Kapāuhi (which means "the enclosure of yams"), and he bought and sold with the foreigners. (Translation by D. Duhaion)*

As ruler over O'ahu, Kamehameha gave Mānoa Valley to one of his loyal warrior chiefs, Kame'eiamoku. When Kame'eiamoku died, his son Hoapili inherited the valley. Following Hoapili's death, Mānoa Valley went to Hoapili's daughter, the Chiefess Liliha, who married Chief Boki (Bouslog et al. 1994).

It was during Liliha and Boki's ownership of Mānoa that Punahou School was started there. "Boki gave to the missionaries that section of land called New Spring (Kapunahou) for the founding of the Punahou school" (Sterling and Summers 1978:282). Also during Liliha and Boki's ownership, Mānoa saw some of the first commercial agriculture ventures in the islands:

In 1825, Boki and his British partner John Wilkinson began to raise seven acres of sugar cane in Mānoa Valley atop the Punahou hill. A decade ahead of the oncoming plantation system. Wilkinson also was reputed to have planted just above Ka'aipū the first coffee nursery in the Islands with plants he brought from Rio de Janeiro. John Kidwell later [in 1885] added pineapple, as well as coffee, to the original sugar plantings. Thus were Hawai'i's three most important commercial crops first harvested in Mānoa. (Bouslog et al. 1994:15)

When Boki and his associates converted their sugar mill into a distillery, the high chiefess and wife of the late Kamehameha the Great, Ka'ahumanu commanded that Boki's Mānoa fields be destroyed (Bouslog et al. 1994). Boki died in 1829 while on a trip to the south Pacific, and the chiefesses Liliha and Ka'ahumanu remained in opposition until their deaths, their discord stirred by the Christian-vs.-traditionalist conflict. Ka'ahumanu died in her home in Mānoa in 1832 ('Ī'i 1959), and after her death and the death of Liliha, portions of Mānoa were given to the ali'i, Kana'ina, the father of future King Lunalilo. Other royals who had homes in Mānoa were King Kamehameha III, Queen Lili'uokalani, and Prince Tute of Tahiti (Bouslog et al. 1994).

### **Historic Maps**

Historic maps help to paint a picture of Mānoa in times past and illustrate the changes that have taken place in the region over the years. The earliest map found for this area is dated 1847 (Figure 5). It shows the subdivision of the lands of Mānoa and names the owners of these parcels. The largest landowner in Mānoa at the time appears to have been Charles Kana'ina, the father of King Lunalilo. Other royals who owned land in Mānoa at that time include Kekūānā'o'a, Kalama, Pākī, and Prince Tute, who was originally from Tahiti. Although this map was produced before the Māhele allowed foreigners to purchase land in Hawai'i, it shows that by that time, Metcalf already occupied two Mānoa parcels, one at the front of the valley and the other in the back of the valley.

The next map is dated 1882 and titled "Manoa Valley" (Figure 6). This map illustrates that after the Māhele, the Mānoa lands were further subdivided, and many more people became landowners in Mānoa. By that time, Metcalf expanded his land holdings in Mānoa, and the number of foreigners buying land in the area increased, including names such as Lyons, Castle and Cooke, and Claus Spreckels. Also on the 1882 map, the land grant for Punahou School is clearly labeled. The project area appears to be in an area named Pilipili, labeled as Gr 882, Metcalf.

A map titled "Honolulu, Hawaiian Islands" is dated 1897 (Figure 7). Although the ancient names of the smaller land divisions of Mānoa are still being used throughout, Mānoa is but one area out of many which make up the greater Honolulu region. The project lands are still labeled as Pilipili, however the shape of this area seems to have changed since the 1882 map.

The next map is from a Hawaii Territory survey in 1913 (Figure 8). It is titled "Honolulu, Showing Mountain Section," and as the name suggests, the map shows the portions of Honolulu near the Ko'olau Mountains. To the west of Mānoa are the valleys of Makiki, Pauoa, Nu'uānu, and Kapālama. By this time, there is a network of roads crisscrossing the mouth of Mānoa Valley, testifying to the development of this area.

A map dated to 1943 shows the UH campus blueprints in detail, not only laying out the school's structures, but also depicting such things as water lines, fire hydrants, lamp posts, and even sewer manholes (Figure 9). Also on this map, University Avenue and Dole Street are clearly marked. Snyder Hall and the quad were not yet built at this time.

The final map shows the UH campus and grounds in 1957 (UH 1957 in Kobayashi 1983:106) (Figure 10). Plans for Snyder Hall and other neighboring buildings are shaded in, though the layout of these



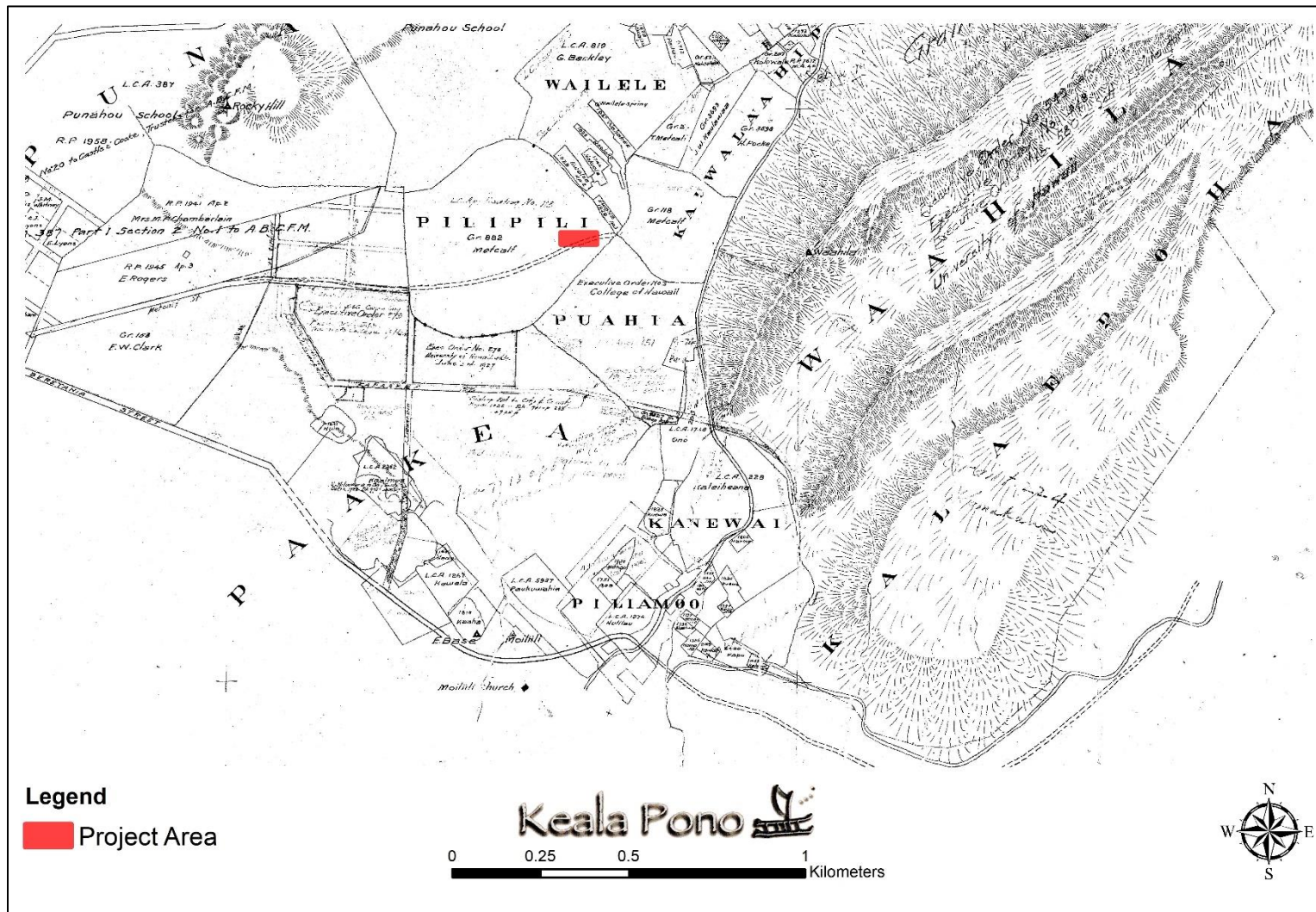
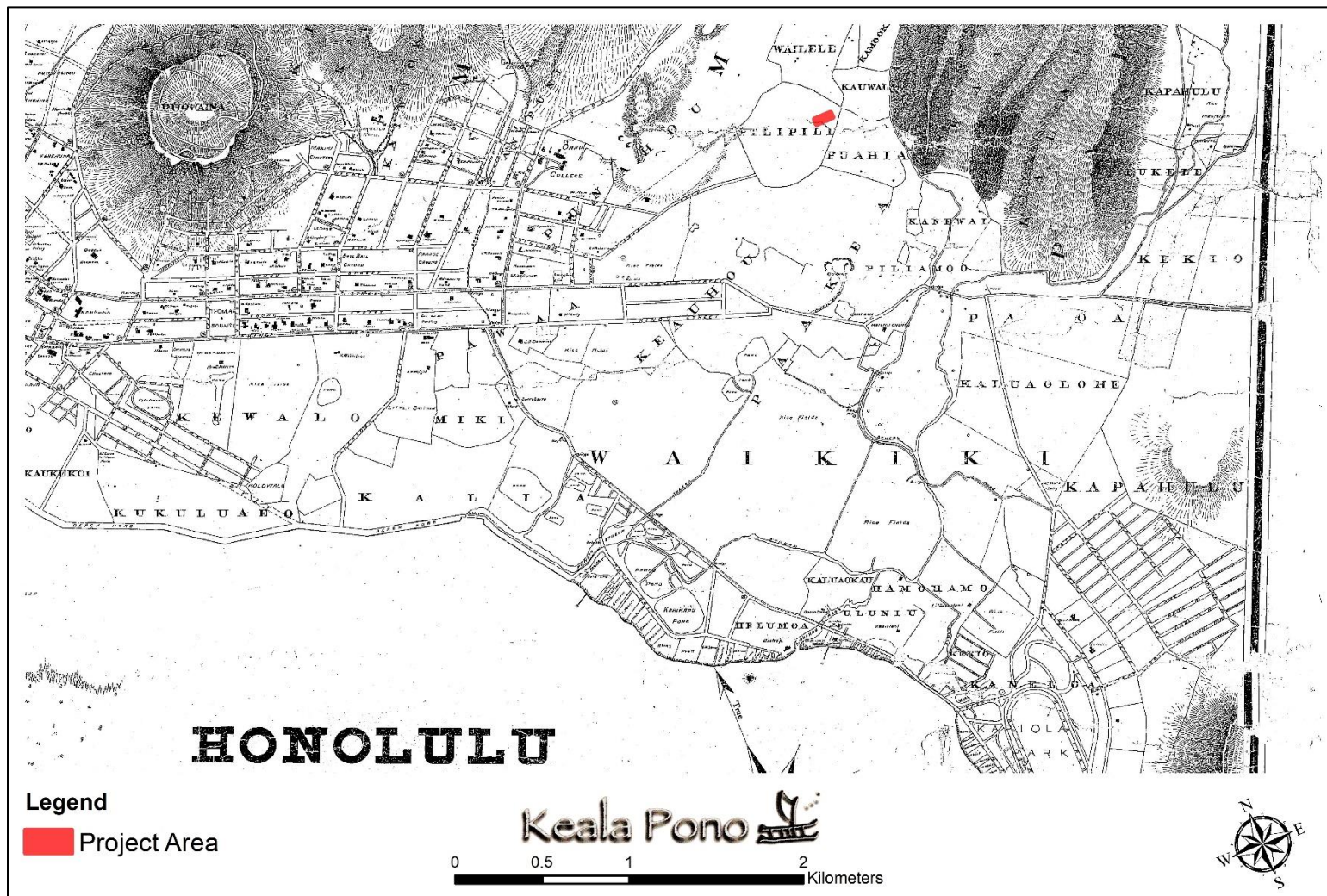
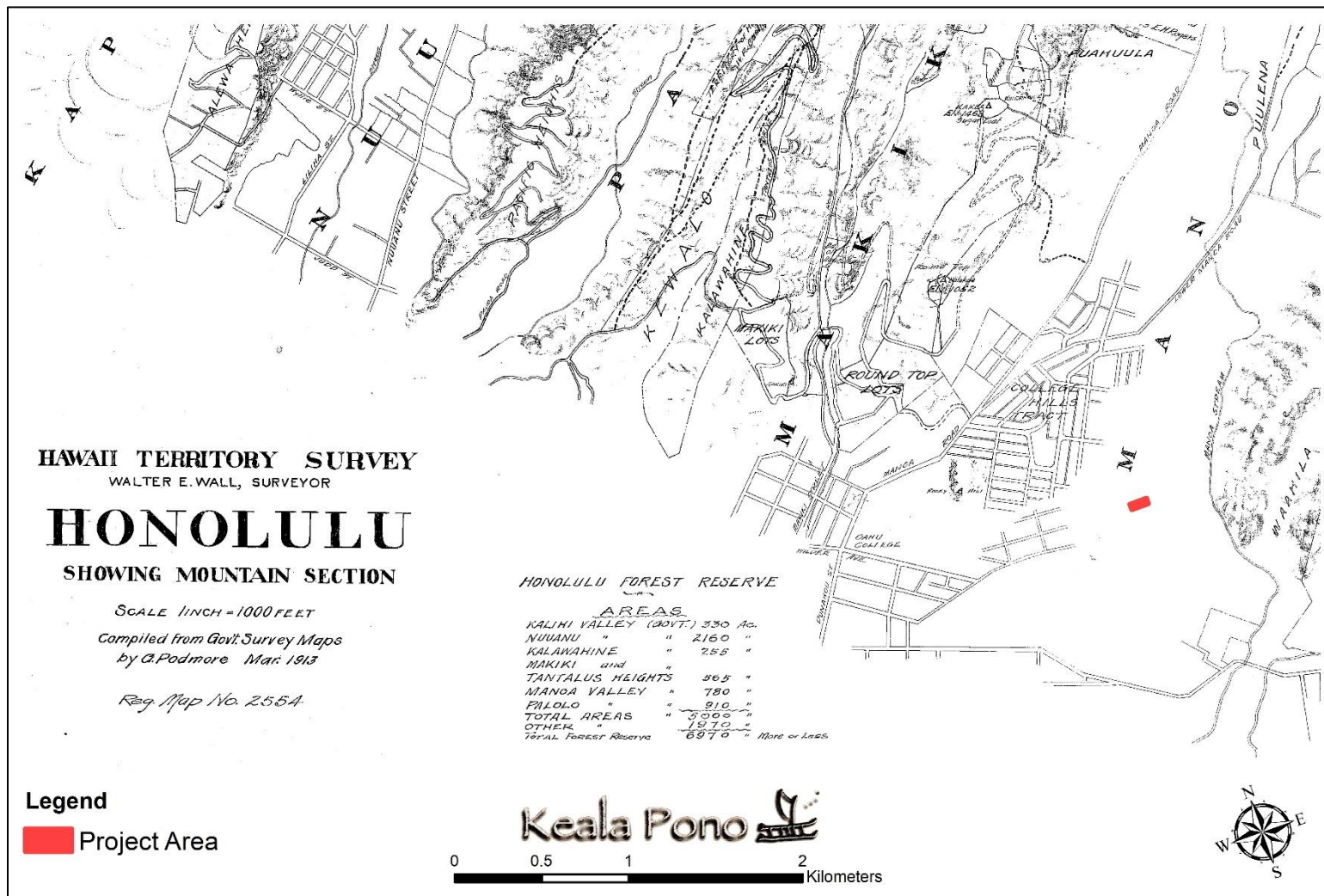


Figure 6. Portion of an early map of Mānoa Valley (Baldwin 1882).









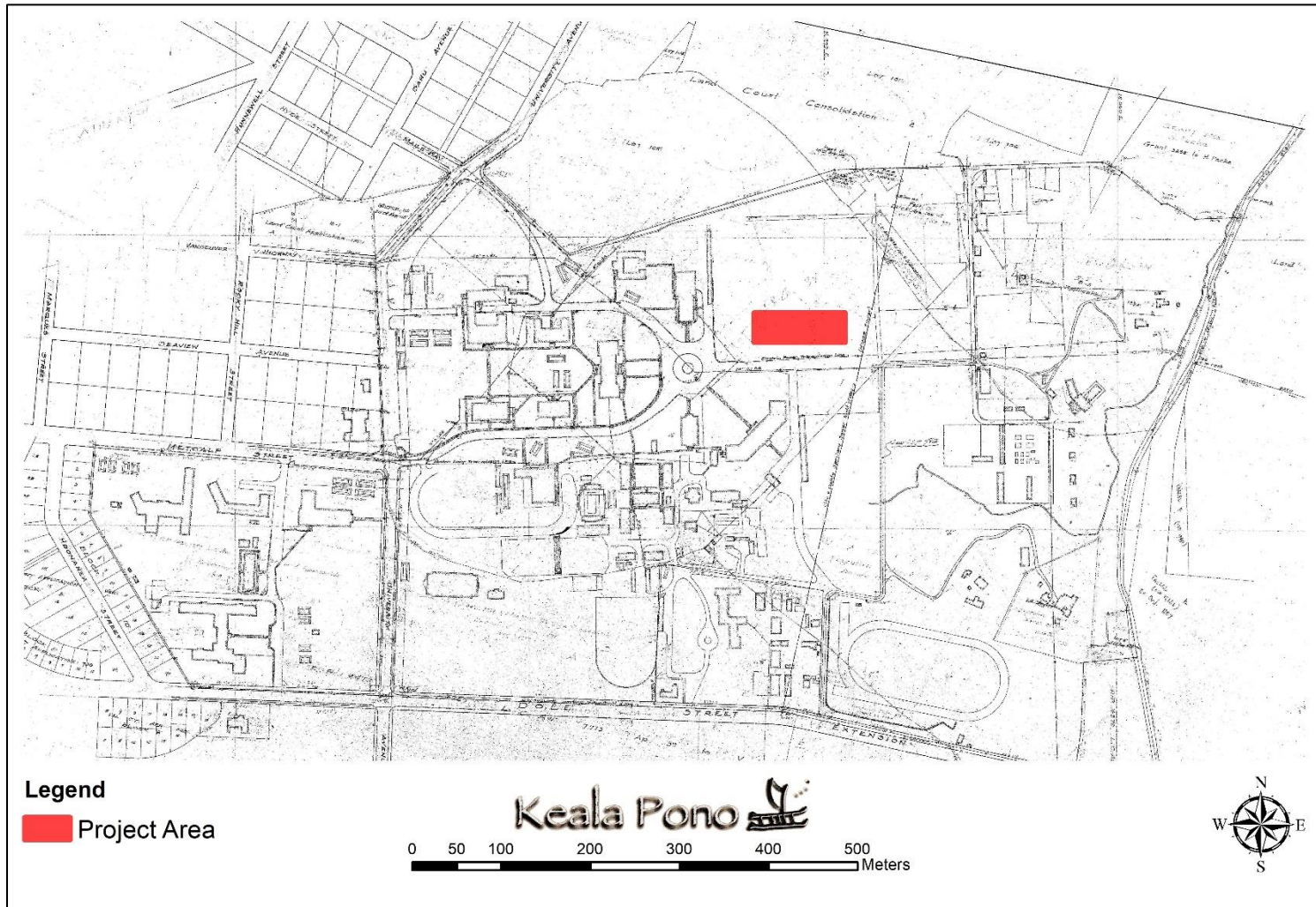


Figure 9. Portion of UH Mānoa campus map (Watt 1943).





structures would change before construction. South of Snyder Hall across the street are buildings labeled as “ceramics,” “Gilmore,” and “Chemistry.” To the southeast is a poultry farm.

### **Mānoa and the Changes in Land Tenure**

It was during the reign of Kamehameha III, in the mid-1800s, as the Hawaiian kingdom became increasingly exposed to outside influences, that the Hawaiian monarchy faced a crossroads of major change. Dr. David Keanu Sai describes the predicament that King Kamehameha III faced:

Kamehameha III’s government stood upon the crumbling foundations of a feudal autocracy that could no longer handle the weight of geo-political and economic forces sweeping across the islands. Uniformity of law across the realm and the centralization of authority had become a necessity. Foreigners were the source of many of these difficulties. (Sai 2008:62)

“Several legislative acts during the period 1845–1855 codified a sweeping transformation from the centuries-old Hawaiian traditions of royal land tenure to the western practice of private land ownership” (Moffat and Fitzpatrick 1995). Most prominent of these enactments was the Māhele of 1848 which was immediately followed by the Kuleana Act of 1850.

The Mahele was an instrument that began to settle the undefined rights of three groups with vested rights in the dominion of the Kingdom --- the government, the chiefs, and the *hoa‘āina*. These needed to be settled because it had been codified in law through the Declaration of Rights and laws of 1839 and the Constitution of 1840, that the lands of the Kingdom were owned by these three groups... Following the Mahele, the only group with an undefined interest in all the lands of the Kingdom were the native tenants, and this would be later addressed in the Kuleana Act of 1850. (Beamer 2008:194–195)

Although the Māhele had specifically set aside lands for the King, the government, and the chiefs, this did not necessarily alienate the *maka‘āinana* from their land. On the contrary, access to the land was fostered through the reciprocal relationships which continued to exist between the commoners and the chiefs. Perhaps the chiefs were expected to better care for the commoners’ rights than the commoners themselves who arguably might have been less familiar with foreign land tenure systems. Indeed, the *ahupua‘a* rights of the *maka‘āinana* were not extinguished with the advent of the Māhele, and Beamer points out that there are “numerous examples of *hoa‘āina* living on Government and Crown Lands Post-Mahele which indicate the government recognized their rights to do so” (Beamer 2008:274).

*Hoa‘āina* who chose not to acquire allodial lands through the Kuleana Act continued to live on Government and Crown Lands as they had been doing as a class previously for generations. Since all titles were awarded, “subject to the rights of native tenants.” The *hoa‘āina* possessed habitation and use rights over their lands. (Beamer 2008:274)

For those commoners who did seek their individual land titles, the process that they needed to follow consisted of filing a claim with the Land Commission; having their land claim surveyed; testifying in person on behalf of their claim; and submitting their final Land Commission Award (LCA) to get a binding royal patent. However, in actuality, the vast majority of the native population never received any LCAs recognizing their land holdings due to several reasons such as their unfamiliarity with the process, their distrust of the process, and/or their desire to cling to their traditional way of land tenure regardless of how they felt about the new system. In 1850, the king passed another law, the Resident Alien Act, this one allowing foreigners to buy land (Cachola 1995:93). This further hindered the process of natives securing lands for their families. No LCA parcels were awarded in the immediate vicinity of the current project area.

As foreigners were afforded the opportunity to buy land in Hawai‘i, so too did portions of Mānoa transfer out of native Hawaiian ownership and into the hands of foreigners. In particular, by the 1880s much of what is currently the University of Hawai‘i at Mānoa belonged to the estate of Theophilus Metcalf, an Englishman who was a government surveyor, marshal of the Honolulu fort, and sugarcane investor (Pukui et al. 1974:150).

The 19<sup>th</sup> century ended with the overthrow of the Hawaiian monarchy and the subsequent annexation of the Hawaiian Islands by the United States of America. Thus, Mānoa saw great changes within that century. Its population was transformed from a native Hawaiian society under a monarchy to an increasingly multiethnic populace as a territory of the United States government. Its landscape reflected the changes, going from one primarily made up of kalo and other important native Hawaiian plants to one that added sugarcane, coffee, pineapple, rice, and other fruits and vegetables brought by newcomers. By the end of the 19<sup>th</sup> century, ranching and dairy operations also found a foothold in Mānoa (Bouslog et al. 1994).

### **Contemporary History**

The 20<sup>th</sup> century saw an unmistakable urbanization of Mānoa as a whole. By the 1930s, much of the former agricultural land in the valley was mostly converted to residences, and although about 100 lo‘i were still in operation, “these represented less than a tenth of the area that was once planted by Hawaiians” (Handy et al. 1991:480).

The same was not entirely true of the current project area. In 1907 the territorial government passed legislation founding the “College of Agriculture and Mechanic Arts of the Territory of Hawaii,” settling on an eventual home on the Mānoa lands still occupied by the University of Hawai‘i (including the current project area) later that year. The institution’s name would change to the “College of Hawaii” in 1911, a year shy of its official move from a temporary campus on Young Street to the Mānoa campus. That the first buildings on the Mānoa campus were “a poultry shed and a dairy barn” – both erected in 1910 in anticipation of the arrival of livestock that the college president purchased, in-person, from California – attests to the importance of agriculture in the early years of the college. The first permanent building on campus, completed in 1912, was the Main Building, later renamed Hawaii Hall, which still stands in pride of place on Varney Circle to this day (Kobayashi 1983:3–10, 183).

In the early days of the university, everything east of the hall was considered “University Farm,” an area which hosted a variety of instructional and experimental agricultural endeavors over the years. The establishment of this farm required the clearing of Chinese and Hawaiian tenants who had previously farmed small fields, each under an acre in size and surrounded by stacked stone walls. The entire area was extremely rocky, both above and below ground. Ten years were spent clearing rocks from the campus, which were sold as local building material and as ballast for ships. A “neighboring dairyman” was noted to have run cows on the college’s farmland as late as 1914. By 1920 the college had officially become the University of Hawaii (Kobayashi 1983:7–8, 26, 103).

The 1940s was, not surprisingly, a disruptive time for the university, as the entire territory was subject to Martial Law for the duration of World War II. Civilian classes on campus ceased on December 7, 1941. The campus was subsequently turned over to the United States military for the training and housing of members of the armed forces, although faculty continued to conduct war-related research in university facilities. Numerous temporary structures were erected on campus, including barracks that were situated northwest of the current project area, on what was then Rock Road (roughly the same alignment as Maile Way behind Webster and Spalding Halls). Those living in these barracks ate and drank at the cafeteria in Hemenway Hall, and University Farm milk was produced at a dairy on campus (Kobayashi 1983:10, 79–90).

The university's farm was steadily reduced in size, and would eventually disappear, as more buildings were erected across campus throughout the 20<sup>th</sup> century. There were still vestiges of the farm on campus up through the late 1950s, however. A 1941 map of campus shows a Pineapple Experiment Station just mauka of the east end of Dole Street, and the University Farm is shown disappearing off the eastern end of the map just after Varney Circle. A building boom began in 1947, however, with the relocation of 62 former military barracks onto campus to temporarily house various programs and departments of the expanding university, which saw exponential growth after World War II as a result of the G.I. Bill (Kobayashi 1983:77, 83, 111). Five years later, a map entitled "University of Hawaii: A Plan for the Future" was produced that showed existing "Poultry Sheds" and "Barns" on the eastern edge of campus (see Figure 10). Between these structures were sketched plans for "Animal Industry" buildings that included a facility for "Stock Judging," all due east of Varney Circle (University of Hawaii 1946). The limited future of livestock on campus can be read in that same map, however. A cluster of physics and engineering buildings were slated for construction to the east of the poultry farm at the time this map was drafted (Kobayashi 1983:103-104, 106).

Snyder Hall was built in 1962, the same year as the adjacent Edmondson Hall. Construction costs totaled \$1,507,025.00, which included some federal funding. The structure, along with Spalding Hall, and Webster Hall was designed by Takashi Anbe and George K.C. Lee. Snyder Hall was originally named the Health Research Institute Building and was given its current name in 1967. The building commemorates accomplished geneticist Laurence H. Snyder, who held the role of UH president from 1958–1963 (Kobayashi 1983:122). Snyder Hall currently houses the Microbiology and Biology Departments.

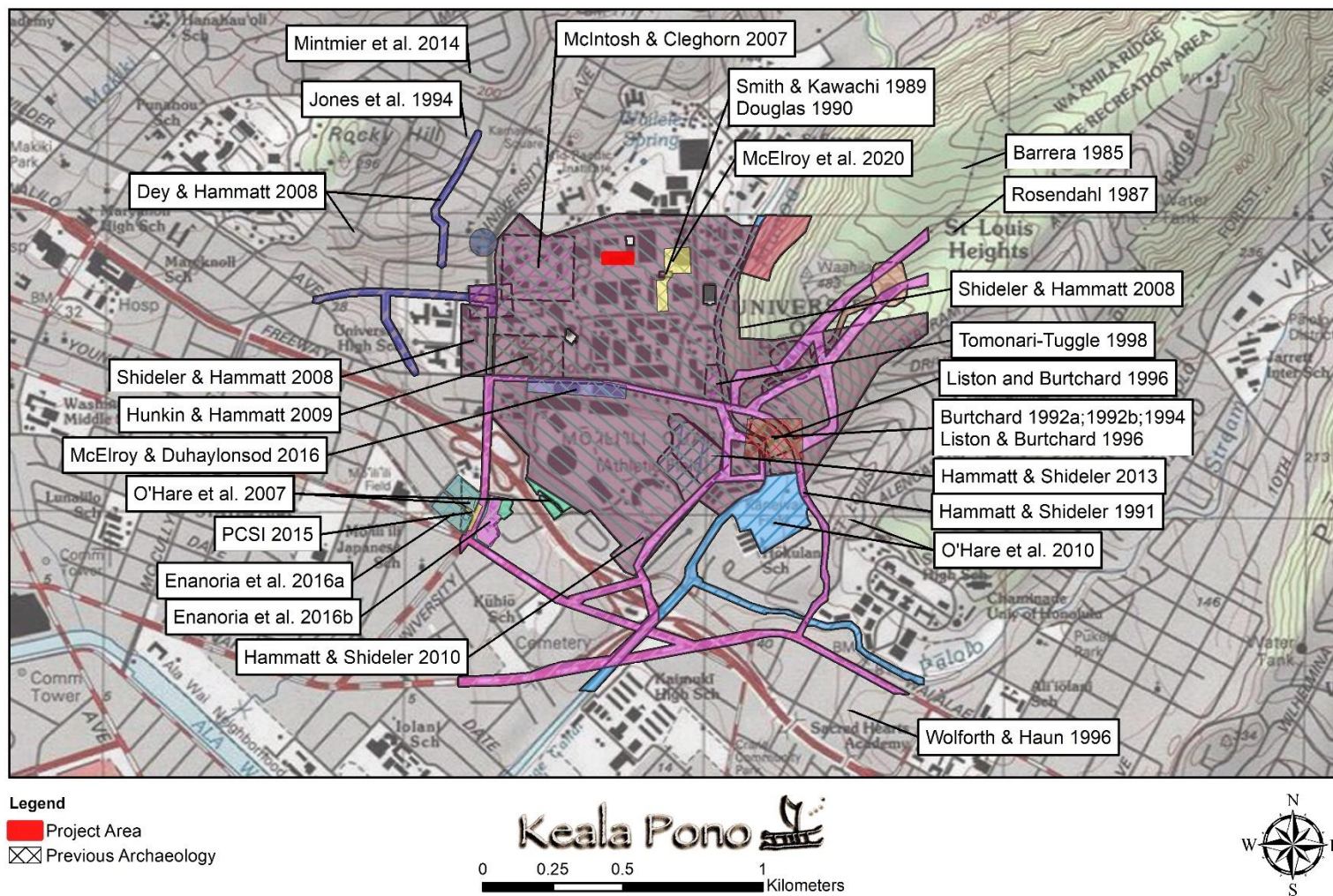
The area that is currently the makai campus of the University of Hawai'i at Mānoa was once a quarry operated by the Honolulu Construction and Draying Company, Ltd. (HC&D), which later became Ameron HC&D. A quarry had existed in the area from as early as 1889. HC&D incorporated in 1908 and began its operations quarrying the Mō'ili'ili site by 1911. By 1951 HC&D had ceased operation in Honolulu. The university, meanwhile, had begun making moves to acquire the property as early as 1945. By 1953 the area had been condemned, with the university buying and taking control of it. The following decades saw the one-time quarry transformed as it filled with university parking lots and athletic facilities (Kobayashi 1983:169–178).

The university continues to be a prominent part of the Mānoa community. It attracts students from across the state, throughout the Pacific, and around the world. And Mānoa contributes greatly to the social fabric of modern Honolulu with its many neighborhoods and numerous parks, churches, schools, and businesses.

## **Previous Archaeology**

Numerous archaeological studies have been conducted in Mānoa. The following discussion provides information on archaeological investigations that have been carried out in the vicinity of the project area, based on reports found in the SHPD library in Kapolei, Hawai'i (Figure 11, Table 1). State Inventory of Historic Places (SIHP) numbers are prefaced by "50-80-14 (Figure 12, Table 2).

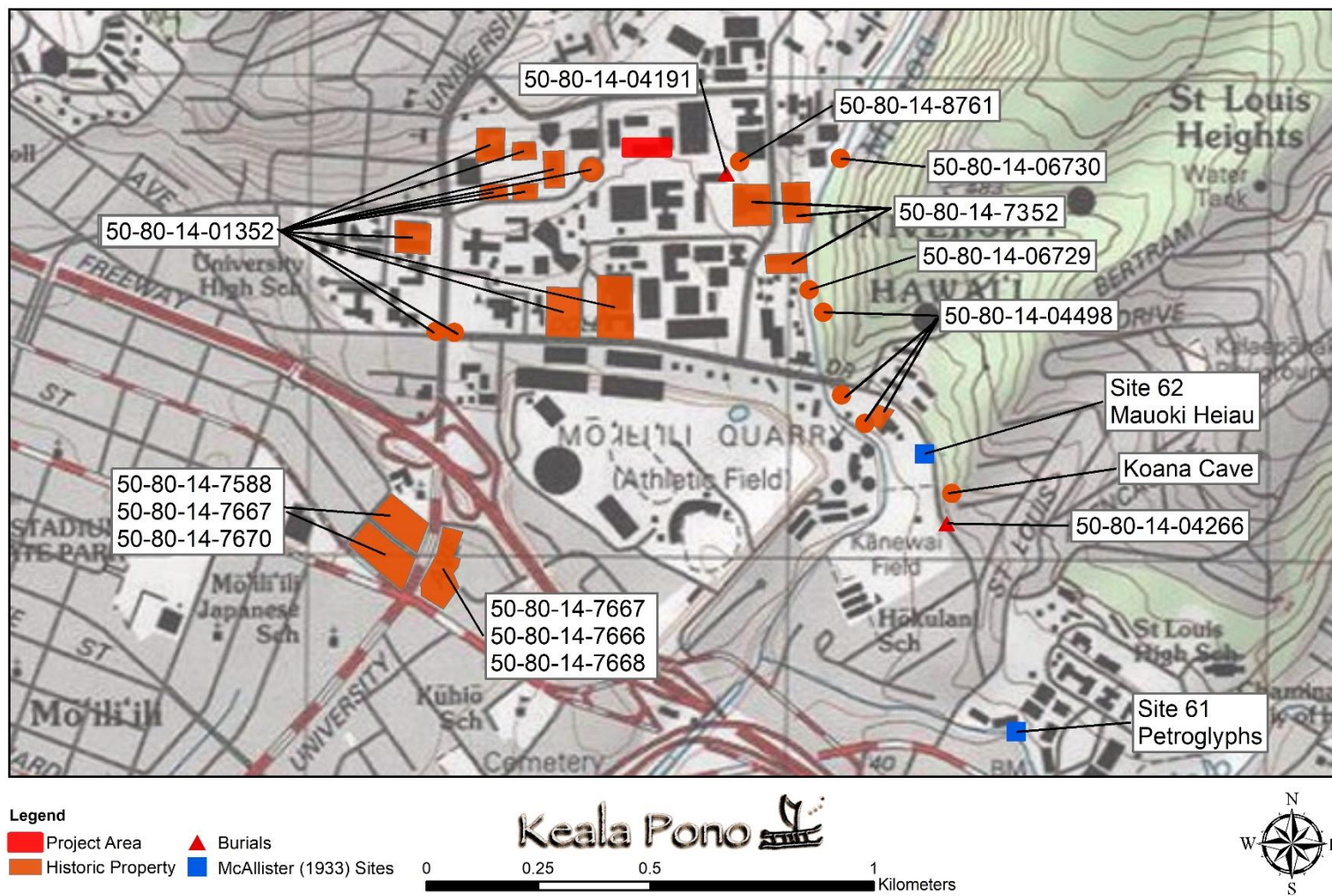
The first documentation of archaeological sites in Mānoa was compiled by Thrum in his series of publications from 1892 to 1909. Thrum recorded five heiau in the area: Kūka'ō'ō, Kawapōpō, Hakika, Hipawai, and Mau'oki. None of these are in the immediate vicinity of the project area, and the closest site, Mau'oki Heiau, was reported to be destroyed in 1883 (Thrum 1892:112–113; 1906 44–45).



Layer Credits: USGS Topographical Honolulu Quadrangle Map 1998

**Figure 11. Location of previous archaeological studies in the vicinity of the project area.**





Layer Credits: USGS Topographical Honolulu Quadrangle Map 1998

**Figure 12. Location of identified archaeological historic properties and burials in the vicinity of the project area.**

**Table 1. Previous Archaeology in Mānoa**

<b>Author and Year</b>	<b>Location</b>	<b>Study</b>	<b>Findings</b>
Thrum 1892–1909	Island-wide	Heiau Documentation	Recorded five heiau in Mānoa.
McAllister 1933	Island-wide	Survey	Noted Site 62, Mauoki Heiau (reported as destroyed) and Site 61, petroglyphs in Mō‘ili‘ili.
Barrera 1985	Manoa Hillside	Survey and Testing	Recorded an old road.
Rosendahl 1987	Wa‘ahila Ridge	Reconnaissance	No historic properties identified.
Smith & Kawachi 1989; Douglas 1990	UH Mānoa near Keller Hall	Investigation of Human Remains	Identified human remains found near Keller Hall (SIHP 4191).
Hammatt & Shideler 1991	Dole St. near Kanewai Park	Investigation of Human Remains	Identified 18 sets of human remains near Kanewai Park (SIHP 4266).
Burtchard 1992a; Burtchard 1992b; Burtchard 1994; Liston & Burtchard 1996	Kāpapa Lo‘i o Kanewai	Data Recovery	Subsurface ‘auwai identified; lo‘i dated to AD 1443–1681 (SIHP 4498).
Jones et al. 1994	UH Mānoa School of Architecture	Monitoring	No historic properties identified.
Wolforth & Haun 1996	UH Mānoa	Archaeological Inventory Survey	Recorded historic buildings (SIHP 1352).
Tomonari-Tuggle 1998	National Marine Fisheries Service Honolulu Laboratory	Archaeological Inventory Survey	Identified previous agriculture and habitation in the area.
O’Hare et al. 2007	Kamehameha Schools University parcels & Varsity Theater	Literature Review & Field Inspection	Identified previous agriculture in the area.
McIntosh & Cleghorn 2007	UH Mānoa	Monitoring	No historic properties identified.
Shideler & Hammatt 2008	UH Mānoa	Literature Review & Field Inspection	Recorded various sites such as SIHP 1352, 4191, 4498, and 6730.
Dey & Hammatt 2008	West of University Ave.	Monitoring	No historic properties identified.
Hunkin & Hammatt 2009	UH Mānoa Bachman Hall	Monitoring	No historic properties identified.
Hammatt & Shideler 2010	UH Mānoa Quarry	Literature Review & Field Inspection	No historic properties identified.
O’Hare et al. 2010	Ala Wai Watershed	Cultural Resources & Ethnographic Study	Noted Kanewai lo‘i and a possible agricultural terrace.
Hammatt & Shideler 2013	UH Mānoa Football and Soccer Fields	Literature Review & Field Inspection	No historic properties identified.
Mintmier et al. 2014	University Ave. at Metcalf St.	Monitoring	Recovered nine historic artifacts.

**Table 1. (Continued)**

<b>Author, and Year</b>	<b>Location</b>	<b>Study</b>	<b>Findings</b>
PCSI 2015	University Ave. at Coyne St.	Monitoring	No historic properties identified.
Enanoria et al. 2016a	Varsity Redevelopment Project	Archaeological Inventory Survey	Identified SIHP 7588 and 7667, subsurface wetland deposits; and SIHP 7670, 20 <sup>th</sup> century structural remains.
Enanoria et al. 2016b	Puck's Alley	Archaeological Inventory Survey	Recorded SIHP 7667, the wetland deposit mentioned above; SIHP 7666, another subsurface wetland deposit; and SIHP 7668, a 20 <sup>th</sup> century trash pit and structural remains.
McElroy & Duhaylonsod 2016	UH Mānoa William S. Richardson School of Law	Archaeological Inventory Survey	No historic properties identified.
McElroy et al. 2020	UH Mānoa Life Science Building	Monitoring	Identified SIHP 8761, a subsurface post-contact cesspool. The cesspool was documented then partially demolished during construction. Historic artifacts encountered include glass, metal, ceramic, a faunal bone, narrow gauge rail segments, and a wooden beam.

**Table 2. Identified Archaeological Historic Properties and Burials**

<b>Site (50-80-14-)</b>	<b>Description</b>	<b>Reference</b>
Koana Cave	Koana Cave	Shideler & Hammatt 2008
61	Mō'ili'ili Petroglyphs	McAllister 1933
62	Mauoki Heiau (reported as destroyed)	McAllister 1933
1352	Historic buildings and Kānewai Cultural Garden	Wolforth & Haun 1996
4191	Human remains	Smith & Kawachi 1989, Douglas 1990
4266	Human remains	Hammatt & Shideler 1991
4498	Kāpapa lo'i 'o Kānewai	Burtchard 1992a, 1992b, Burtchard 1994; Liston & Burtchard 1996
6730	Stone and mortar dam	Shideler & Hammatt 2008
7352	UH Manoa Campus	HHF n.d.
7588	Subsurface wetland deposit	Enanoria et al. 2016a
7666	Subsurface wetland deposit	Enanoria et al. 2016a, 2016b
7667	Subsurface wetland deposit	Enanoria et al. 2016b
7668	Historic trash pit and structural remains	Enanoria et al. 2016b
7670	Historic structural remains	Enanoria et al. 2016a
8761	Historic subsurface cesspool	McElroy et al. 2020

By the 1930s, when McAllister (1933) did his island-wide survey of O‘ahu, he could only identify two of the heiau listed for Mānoa: Kūka‘ō‘ō (Site 64) and Hipawai (Site 63), neither of which are near the project area. Mauoki Heiau, which is in the project vicinity (Site 62) was reported as destroyed. McAllister did record a petroglyph site in Mō‘ili‘ili, approximately 1.1 km (.68 mi.) southeast of the study area. The site consists of two petroglyph groups, although they were already very worn and difficult to distinguish in the 1930s (Emory in McAllister 1933:78).

The next archaeological study did not occur until the 1980s, when archaeological survey and testing were conducted at the Manoa Hillside subdivision (Barrera 1985). An “old road bed” was recorded there but not given a site number at that time. Two years later, a reconnaissance survey along the edge of Wa‘ahila Ridge did not identify any archaeological sites (Rosendahl 1987).

In 1989, human remains were removed from the UH Mānoa campus near Keller Hall (Smith and Kawachi 1989). The remains were designated as SIHP 4191. They were found both in situ and in dirt that had been removed by backhoe. The in situ remains were found between 28 and 43 cmbs (cm below surface). The UH Mānoa Director of Public Affairs requested that the remains be returned for reinterment. Subsequently there was an osteological investigation of the human remains found at SIHP 4191 (Douglas 1990). The remains were incomplete and extremely fragmented, but they were determined to be that of an adult male.

Human remains were also identified on Dole Street in front of Kānewai Park (Hammatt and Shideler 1991). A total of 18 individuals were recorded and the site was registered as SIHP 4266. The burials were located between 120 and 160 cmbs, and a hearth feature was also discovered. An osteological investigation was conducted and included in the report. The dating of charcoal samples suggested that all of the burials may date to the 15<sup>th</sup> century AD.

In 1992, a report was generated for the Kāpapa lo‘i ‘o Kānewai, SIHP 4498, regarding backhoe trench placement and a schedule for data recovery (Burtchard 1992a). The same year, a separate report was produced for the archaeological data recovery for that project (Burtchard 1992b). Pre-contact ‘auwai were identified in three of four trenches, and a shallow sediment core sample confirmed pre- and post-contact use of the agricultural site. Phase II archaeological data recovery and fieldwork for the construction at the Kāpapa lo‘i ‘o Kānewai was completed in 1994. Findings revealed that the pre-contact agricultural irrigation system was in use between AD 1443–1681. No cultural material was identified (Burtchard 1994). The final report for the archaeological study conducted at Kāpapa lo‘i ‘o Kānewai recommended no further work (Liston and Burtchard 1996).

Archaeological monitoring for construction at the School of Architecture at UH Mānoa revealed no archaeological features or materials (Jones et al. 1994). No further work was recommended.

A few years later, an archaeological inventory survey was conducted for a project for power transmission line alignments in Mānoa (Wolforth and Haun 1996). A site that included several historic buildings and Kānewai Cultural Garden, was identified at UH Mānoa (SIHP 1352). Another historic-architectural site was identified near the Church of the Crossroads, not near the current project area.

In 1998, historic research was undertaken to assess the archaeological potential of the site of the National Marine Fisheries Service Honolulu Laboratory (Tomonari-Tuggle 1998). It was concluded that although the area was probably utilized for agriculture and habitation both in the pre-contact and post-contact eras, previous construction in the 1950s probably destroyed any surface archaeological resources and disturbed any subsurface deposits. Subsurface testing was recommended prior to any future construction activity.



In 2007, an archaeological literature review and field inspection were completed for the Kamehameha Schools University parcels and also for the Varsity Theater parcel (O'Hare et al. 2007). It was concluded that portions of these areas were utilized for taro cultivation in the pre- and post-contact eras and that portions were also used for rice cultivation in the post-contact era.

Also in 2007, archaeological monitoring was conducted during trenching at the UH Mānoa Old Quadrangle Install Chilled Water Loop project. No archaeological features or materials were identified, and no further work was recommended (McIntosh and Cleghorn 2007).

The following year, an archaeological literature review and a field inspection covered various previously recorded sites at UH Mānoa, including SIHP 1352 (historic buildings and Kānewai Cultural Garden), 4191 (human remains), 4498 (Kāpapa lo'i 'o Kānewai), 6730 (a stone and mortar dam), the Koana Cave (no site number), and the site of Hipawai Heiau (Site 63) (Shideler and Hammatt 2008). The Koana Cave was found to have surface midden and thought to be a habitation site.

Also in 2008, archaeological monitoring for the Punahou Water Systems Improvements in Mānoa identified no archaeological features or materials (Dey and Hammatt 2008). It was recommended that SHPD should be consulted on whether or not future work in the area would require archaeological monitoring.

Archaeological monitoring for construction activity at UH Mānoa's Bachman Hall did not identify any cultural deposits (Hunkin and Hammatt 2009). No further work was recommended. An archaeological literature review and field inspection for the Hawaiian Electric Company substation in the UH Mānoa quarry also yielded no historic properties findings (Hammatt and Shideler 2010).

A cultural resources and ethnographic study was completed for the Mānoa portion of the Ala Wai Watershed Project (O'Hare et al. 2010). In addition to noting the lo'i system at Kānewai (SIHP 4498), a possible agricultural terrace (SIHP 6729) was identified near the East-West Center on the west bank of the Mānoa Stream.

An archaeological literature and cultural history review was conducted in 2013, along with a field inspection of the UH Mānoa football field and soccer field areas. It was determined that although this location was used extensively for habitation and agriculture in the pre- and post-contact periods, the subsequent operation of a quarry probably destroyed any remnant cultural material. No further archaeological work was recommended (Hammatt and Shideler 2013).

In 2014, archaeological monitoring was completed for construction activity associated with traffic infrastructure improvements at the intersection of Metcalf Street and University Avenue. Thirteen stratigraphic layers were identified of which nine were layers of fill deposits. Also, nine glass and metal artifacts from the historic era were recorded. Archaeological monitoring was recommended for future work due to the past recovery of known iwi in the vicinity (Mintmier et al. 2014). The following year, archaeological monitoring at the intersection of Coyne Street and University Avenue identified no historic properties (PCSI 2015).

Two archaeological inventory surveys in the Puck's Alley area identified several archaeological sites (Enanoria et al. 2016a and 2016b). The first study recorded SIHP 7588 and 7667, subsurface wetland deposits; and SIHP 7670, 20<sup>th</sup> century structural remains (Enanoria et al. 2016a). The second study identified SIHP 7667, the wetland deposit mentioned above; SIHP 7666, another subsurface wetland deposit; and SIHP 7668, a 20<sup>th</sup> century trash pit and structural remains (Enanoria et al. 2016b).

An archaeological inventory survey was completed for improvements to the UH Mānoa William S. Richardson School of Law (McElroy and Duhaylonsod 2016). Test excavations in the law school's

parking lot identified no historic properties, therefore the study was presented as an archaeological assessment.

Most recently, archaeological monitoring was conducted for construction related to the UH Mānoa Life Science Building (McElroy et al. 2020). A subsurface historic cesspool of stacked stone and concrete construction was identified and designated SIHP 8761. In consultation with the SHPD, the cesspool was fully documented, then partially demolished during construction. A number of historic artifacts were also encountered. This included glass fragments, ceramic sherds, metal artifacts, a pig bone, three segments of narrow-gauge rail, and a wooden beam. The artifacts dated to as early as 1830 to as late as 1964.

In addition to the archaeological sites mentioned above, there are several historic buildings on or in the immediate vicinity of the UH Mānoa Campus (HHF n.d.). The University of Hawai‘i at Mānoa as a whole is listed on the Hawai‘i Register of Historic Places (HRHP) and as SIHP 7352. It is described as a non-contiguous district with historically significant structures that are an important reminder of the university’s history and its role in Hawai‘i’s higher education (HHF n.d.). Individual buildings on campus that are listed on the HRHP include the following:

- 1711 East-West Road/East West Center Complex (SIHP 9824), constructed between 1962 and 1963
- 2444 Dole Street/University of Hawai‘i Mānoa Administration Building (SIHP 7389), constructed in 1949
- 2445 Campus Road/Hemenway Hall (SIHP 7387), constructed in 1938
- 2411 Dole Street/University of Hawai‘i Mānoa Music Complex (SIHP 7390), three buildings constructed in 1958 and a fourth building constructed in 1962
- 2425 Campus Road/Gregg M. Sinclair Library (SIHP 7388), constructed in 1956
- 1776 University Avenue/Castle Memorial Hall (SIHP 9753), constructed in 1941

### **Summary and Settlement Patterns**

Archaeological evidence and traditional sources advance the theory that the ahupua‘a of Waikīkī, of which Mānoa is a part of, was one of the first places that Polynesians settled on O‘ahu after the initial occupation of the Ko‘olaupoko area. The healthy population of the district was sustained by an abundance of offshore marine resources, well-stocked fishponds, and irrigated wetlands where taro was bountifully harvested. The inland valleys and ridges of Mānoa and other areas provided further natural resources for additional foods, clothing, housing, cordage, and other necessities. While the earliest form of society in the region centered on extended family units headed by a number of patriarchs, as the population expanded, it evolved into a strict hierarchal class-society ruled by divine chiefs.

The Hawaiian Islands consisted of several sovereign island kingdoms independent of each other for almost 1,000 years. During this time, different islands were consolidated under one ruler, and at other times, the chiefdoms consisting of several islands were splintered, all of this fluidity due to inter-island wars and alliances. For much of this portion of Hawaiian history, the ahupua‘a of Waikīkī not only remained part of the O‘ahu kingdom, it was the very seat of power for the O‘ahu king. Toward the end of the 18<sup>th</sup> century when O‘ahu was first conquered by Maui, and about a decade later when O‘ahu was conquered by Hawai‘i Island, Waikīkī remained the seat of political power. The unified Hawaiian Islands continued to be ruled out of Waikīkī under King Kamehameha the Great until he moved his seat of government to Honolulu. Throughout it all, Waikīkī was still a place reserved for Hawaiian royalty to live, worship, and play. This was reflected in the uplands of the district, in Mānoa, where there was a dividing line, and the royalty had one side of the valley

reserved for themselves. Even after King Kamehameha III's sweeping enactment of the Māhele of 1848 which allowed for private ownership of land, Waikīkī Ahupua'a continued to be associated with the Hawaiian royals, and parcels of Mānoa lands eventually stayed with such notable figures as Kamehameha, Lili'uokalani, Kana'ina, Liliha, Boki, Pākī, Kekūanā'ō'a, Kalama, and Ka'ahumanu.

The 19<sup>th</sup> century closed with the overthrow of the Hawaiian monarchy by foreigners backed by the United States and the move to incorporate Hawai'i as an American territory. As the U.S. military and other planners drained and filled the district's wetlands and developed it into an area of prime real estate, the district's uplands, particularly in Mānoa, were also being converted from agricultural to residential purposes. By the mid-20<sup>th</sup> century, Mānoa was clearly a post-territorial multiethnic community. Residential development has continued to grow throughout the decades making Mānoa blend into the cityscape of modern Honolulu. In addition, the state's major university, the University of Hawai'i at Mānoa, has been firmly established there, and it has evolved into a prosperous center for higher learning with its surrounding college community today.

## METHODS

Archaeologists monitored ground disturbance during the demolition of Snyder Hall between April 19 and September 21, 2021, with 26 days of monitoring completed during this time. Archaeological monitors included Danielle Shemesh, BA, Max Pinsonneault, MA, Tiffany Brown, BA, and Jeffrey Lapinad. Windy McElroy, PhD, served as Principal Investigator, overseeing all aspects of the project.

A SHPD-approved archaeological monitoring plan guided monitoring during the project, and there were no deviations from the plan (McElroy et al. 2021). On the first day of work, the archaeological monitor spoke with the construction team to ensure that they understood the purpose of the monitoring and that the monitor had the authority to halt construction activity. Ground disturbance was primarily conducted with an excavator (Figure 13).

Representative profiles were drawn and photographed. Samsung and iPhone cameras were used to take digital photos of various stages of the work and also where profiles were drawn. Photo logs and bag lists recorded photo locations and information for collected cultural material. Daily logs were kept in field notebooks or on paper archaeological monitoring log forms. Soils were described using Munsell Soil Color Charts (Munsell 2010), a soil texture flow chart (Thien 1979), and the U.S. Department of Agriculture soil survey manual (Soil Science Division Staff 2017). GPS points were recorded using a Garmin GPSmap 62st with 3 m accuracy. The scale in all field photographs is marked in 10 cm increments. The north arrow on all maps points to magnetic north. Throughout this report rock sizes follow the conventions outlined in Field Book for Describing and Sampling Soils: Gravel <7 cm; Cobble 7–25 cm; Stone 25–60 cm; Boulder >60 cm (Schoeneberger et al. 2002:2-35). No cultural material or soil samples were collected.



**Figure 13. Digging with an excavator. Orientation is to the south.**

## RESULTS

Archaeological monitoring was conducted during ground disturbing activity associated with the demolition of Snyder Hall on the UH Mānoa campus on TMK: (1) 2-8-023:003 (por.) in Mānoa, Waikīkī Ahupua‘a, Kona District, on the Island of O‘ahu. Ground disturbance for the project encompassed a .30 ha (.75 ac.) area and consisted of excavation for the removal and replacement of utilities in addition to the demolition and removal of the building foundation concrete pilings and footings. Ground disturbing activities reached a maximum of 2.5 mbs, however most of the excavations remained between 0.6–1.4 mbs. Minor excavations were also conducted to install a new sprinkler system. Profiles were taken when excavations moved into novel ground. These profiles documented local stratigraphic data. The layers were then organized according to their depth and projected age to form an area stratigraphy according to the methodology put forth by Colin Renfrew and Paul Bahn (2016). Archaeological monitoring was recommended because of human burials in other areas of the UH Mānoa Campus and the lack of archaeological data within the project area.

### Area Stratigraphy

A single very dark grayish brown clay loam layer was encountered during the project (Table 3). This layer was wet, very sticky, very plastic, and contained up to 5% fine roots and 10% basalt gravel. The base of the layer was not encountered during the project. No cultural material or features were observed during the excavation.

**Table 3. Area Stratigraphy Derived from Profiles within the Project Area**

Layer	Average Depth (cmbs)	Munsell Color	Description	Interpretation
I	0–100+	10YR 3/2 (Very Dark Grayish Brown)	Clay loam; wet; very sticky; very plastic; 5% fine roots; 10% basalt gravel; base of excavation.	Secondary Fill

### Representative Profiles

The area stratigraphy above was constructed by analyzing profiles collected in the project area. Three representative profiles are presented below. The locations of the profiles are indicated in Figures 14 and 15 and their stratigraphy is summarized in Table 4.

These three reference profiles are located within and on both sides of the Snyder Hall footprint. Profile 1 is situated in the courtyard to the north, Profile 2 is located southeast of Snyder Hall in front of Edmondson Hall, and Profile 3 is within the building’s footprint. The same clay loam was found in all three profiles, indicating that the stratigraphy is consistent throughout the project area.

Profile 1 was taken during excavations for the replacement of a gas line located northwest of the Snyder Hall footprint and reached a depth of 80 cm below surface (cmbs). As with the rest of the project area, only Layer I was present. No cultural material was encountered in the vicinity of Profile 1.

Profile 2 was taken during excavations for the replacement of an electrical line that is located south of Edmondson Hall, just southeast of the Snyder Hall footprint, and reached a depth of 70 cmbs. As with the rest of the project area, only Layer I was present. No cultural material was encountered in the vicinity of Profile 2.

Profile 3 was taken during excavations to remove concrete pilings and footings in the southeast corner of the Snyder Hall footprint and reached 90 cmbs. As with the rest of the project area, only Layer I was present. No cultural material was encountered in the vicinity of Profile 3.

**Table 4. Stratigraphy of Representative Profiles**

Profile	Layer	Min. Depth (cmbs)	Max. Depth (cmbs)	Roots %	Rocks %	Boundary Character / Distinctness	Contents
1	I	0	80	5	10	Not applicable—layer extended to base of excavation.	None
2	I	0	70	5	10	Not applicable—layer extended to base of excavation.	None
3	I	0	90	0	15	Not applicable—layer extended to base of excavation.	None

### **Summary of Results**

Archaeological monitoring during the demolition of Snyder Hall at the University of Hawai‘i at Mānoa yielded no archaeological sites, features, or cultural material. Stratigraphy in the small project area uniformly consisted of clay loam fill. Despite the demolition of the 59 year-old Snyder Hall, the project area proved to be sterile in terms of archaeological remains.



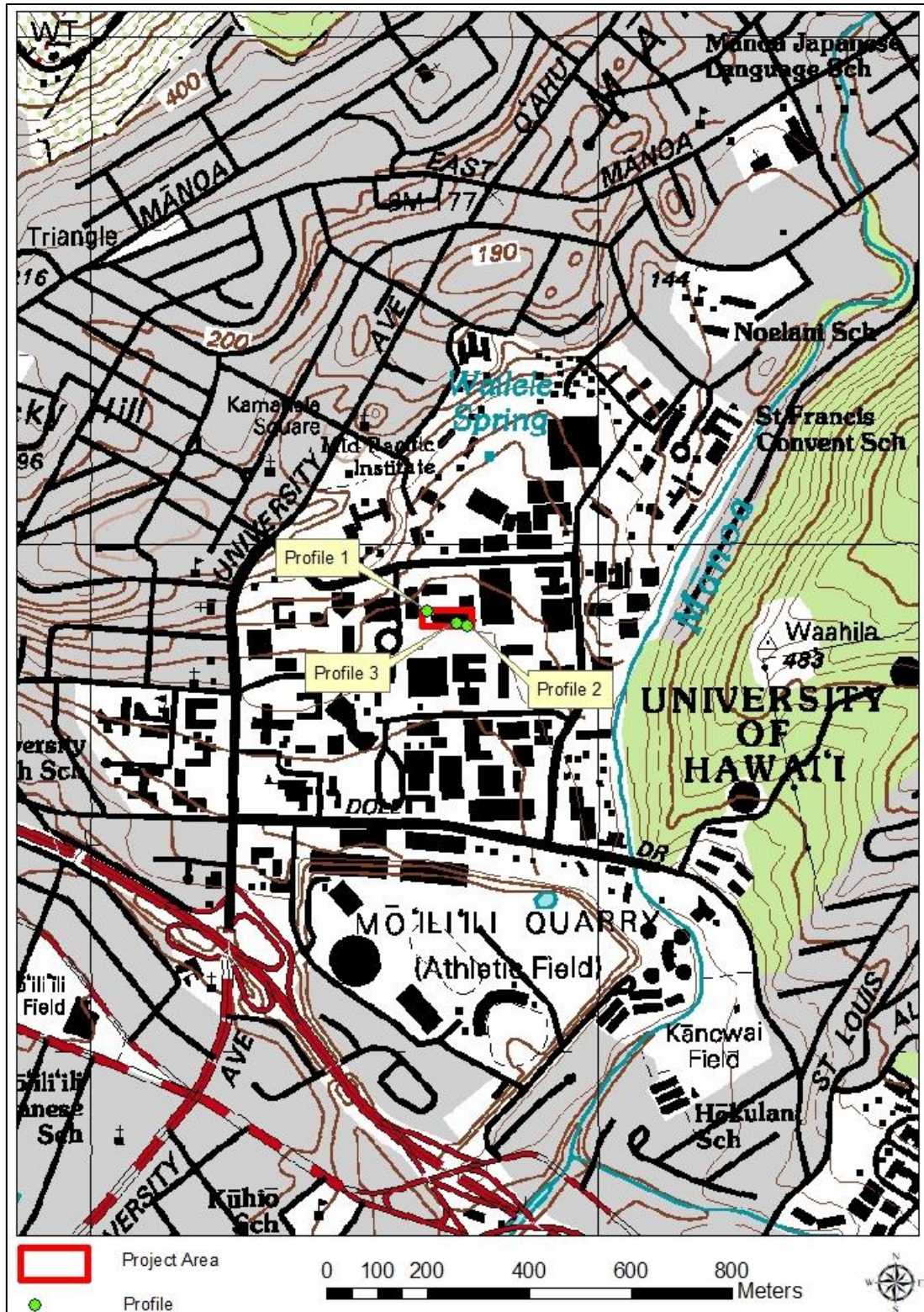


Figure 14. Profile locations on a 7.5 minute USGS quadrangle map.





Figure 15. Closer view of profile locations on aerial imagery (note that the aerial image was taken before the demolition of Snyder Hall).

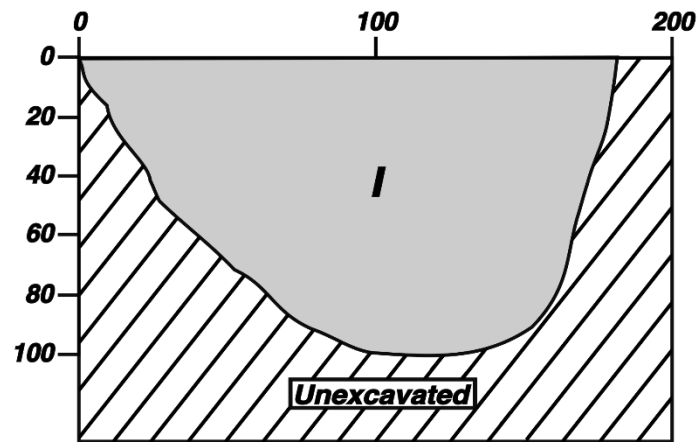


Figure 16. Drawing of Profile 1, west face.



Figure 17. Photo of Profile 1, facing west.



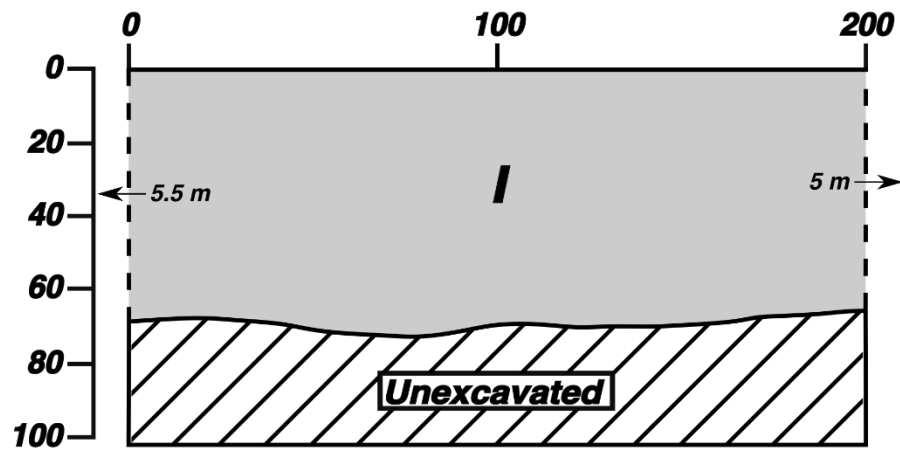


Figure 18. Drawing of Profile 2, north face.



Figure 19. Photo of Profile 2, facing north.

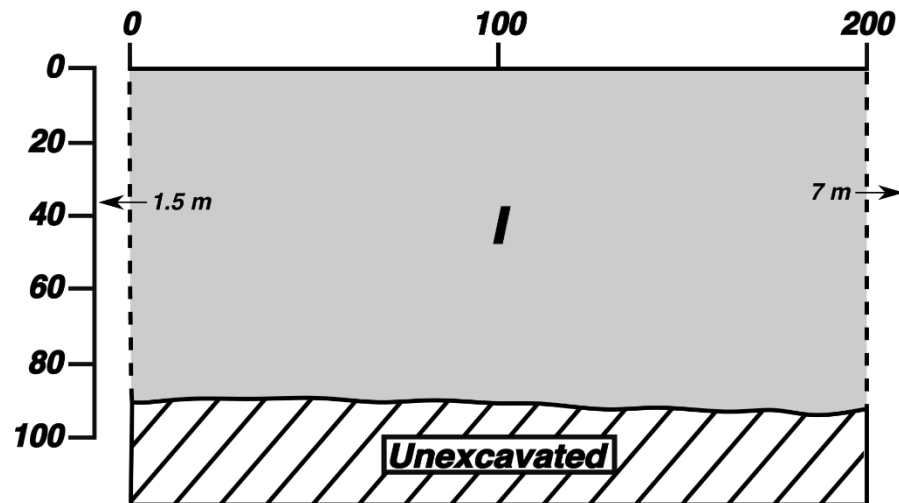


Figure 20. Drawing of Profile 3, south face.



Figure 21. Photo of Profile 3, facing south.

## **SUMMARY AND RECOMMENDATIONS**

Archaeological monitoring was conducted during ground disturbing activity associated with the demolition of Snyder Hall on TMK: (1) 2-8-023:003 (por.) in Mānoa, Waikīkī Ahupua‘a, Kona District, on the Island of O‘ahu. The small project area covered .30 ha (.75 ac.) on the UH Mānoa campus, between Webster Hall to the west, Edmondson Hall to the east, McCarthy Mall to the south, and a central courtyard to the north. Ground disturbance for the project consisted of excavation for the removal and replacement of utilities in addition to the demolition and removal of the building foundation concrete pilings and footings. Minor excavations were also conducted to install a new sprinkler system.

No archaeological sites, features, or cultural materials were encountered, and stratigraphy within the small project area consisted of a single layer of fill. Nevertheless, because of the potential for archaeological resources including human burials to occur in the area, it is recommended that archaeological monitoring is conducted for any future work in the vicinity.

## GLOSSARY

<b>ahupua‘a</b>	Traditional Hawaiian land division usually extending from the uplands to the sea.
<b>ali‘i</b>	Chief, chiefess, monarch.
<b>‘āpana</b>	Piece, slice, section, part, land segment, lot, district.
<b>‘auwai</b>	Ditch, often for irrigated agriculture.
<b>‘awa</b>	The shrub <i>Piper methysticum</i> , or <i>kava</i> , the root of which was used as a ceremonial drink throughout the Pacific.
<b>hau</b>	The indigenous tree <i>Hibiscus tiliaceus</i> , which had many uses in traditional Hawai‘i. Sandals were fashioned from the bark and cordage was made from fibers. Wood was shaped into net floats, canoe booms, and various sports equipment and flowers were used medicinally.
<b>heiau</b>	Place of worship and ritual in traditional Hawai‘i.
<b>hoa‘āina</b>	Native tenants that worked the land.
<b>hōlua</b>	Traditional Hawaiian sled used on grassy slopes.
<b>‘ie‘ie</b>	The vine <i>Freycinetia arborea</i> , an endemic, woody branching climber that grows at altitudes of 300–600 m. In ancient Hawai‘i, vines were considered sacred and used in basketry and for ceremonial purposes.
<b>‘ili</b>	Traditional land division, usually a subdivision of an ahupua‘a.
<b>iwi</b>	Bone.
<b>kalo</b>	The Polynesian-introduced <i>Colocasia esculenta</i> , or taro, the staple of the traditional Hawaiian diet.
<b>Kanaloa</b>	A major god, typically associated with Kāne.
<b>Kāne</b>	The leading of the traditional Hawaiian deities.
<b>kō‘ele</b>	Small land unit farmed by a tenant for the chief.
<b>kukui</b>	The candlenut tree, or <i>Aleurites moluccana</i> , the nuts of which were eaten as a relish and used for lamp fuel in traditional times.
<b>kula</b>	Plain, field, open country, pasture, land with no water rights.
<b>lama</b>	The native tree, <i>Diospyros sandwicensis</i> , that had many uses in traditional Hawai‘i. Fruit was eaten, wood was fashioned into fish traps and sacred structures within heiau. Lama wood was also crushed and used for medicinal purposes.
<b>lo‘i, lo‘i kalo</b>	An irrigated terrace or set of terraces for the cultivation of taro.
<b>Māhele</b>	The 1848 division of land.
<b>maka‘āinana</b>	Common people, or populace; translates to “people that attend the land.”
<b>makai</b>	Toward the sea.
<b>māmaki</b>	<i>Piptarus spp.</i> , a small native tree. Fiber from its bark was used to make a kind of coarse tapa. Sometimes spelled mamake in old texts.
<b>mauka</b>	Inland, upland, toward the mountain.

<b>mele</b>	Song, chant, or poem.
<b>menehune</b>	Small people of legend who worked at night to build structures such as fishponds, roads, and heiau.
<b>moku</b>	District, island.
<b>mo‘o</b>	Lizard, dragon, water spirit.
<b>mo‘olelo</b>	A story, myth, history, tradition, legend, or record.
<b>‘ōhi‘a ‘ai</b>	The mountain apple tree, <i>Eugenia malaccensis</i> , a forest tree that grows to 50 ft. high.
<b>‘ōhi‘a lehua</b>	The native tree <i>Metrosideros polymorpha</i> , the wood of which was utilized for carving images, as temple posts and palisades, for canoe spreaders and gunwales, and in musical instruments.
<b>‘ōlelo no‘eau</b>	Proverb, wise saying, traditional saying.
<b>oli</b>	Chant.
<b>olonā</b>	The native plant <i>Touchardia latifolia</i> , traditionally used for making cordage.
<b>pili</b>	A native grass, <i>Heteropogon contortus</i> .
<b>uhiuhi</b>	The endemic tree <i>Mezoneuron kauaiense</i> , a legume with pink or red flowers and winged pods. It produces a hard, heavy wood that was used for hōlua sleds, spears, digging sticks, and house posts in ancient times.



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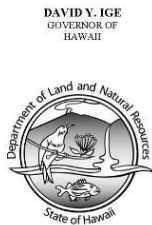
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**APPENDIX: SHPD CORRESPONDENCE IN REFERENCE TO SNYDER HALL DEMOLITION**



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GOVERNOR OF  
HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

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HISTORIC PRESERVATION  
KAROO LAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

October 21, 2019

Nelson A. Lee  
Director  
Office of Project Delivery  
University of Hawai'i at Mānoa  
2002 East West Road  
Honolulu, HI 96822  
Via Email: nlee7@hawaii.edu

IN REPLY REFER TO:

LOG NO: 2019.01296

DOC NO: 1909TGM06

Architecture, Archaeology

Dear Mr. Lee:

**SUBJECT: HRS Chapter 6E-8 Historic Preservation Review**  
**Snyder Hall – Demolition**  
**2538 McCarthy Mall, Honolulu, HI 96822**  
**Waikiki Ahupua'a, Kona Moku, Island of O'ahu**  
**TMK: (1) 2-8-023:003**

Thank you for the opportunity to comment on this request from the University of Hawai'i (UH) at Mānoa for Hawai'i Revised Statutes (HRS) Chapter 6E-8 review. The State Historic Preservation Division (SHPD) received this submittal on June 4, 2019. The submittal included the agency cover letter, SHPD 6E Submittal Form, permit set, and photographs. The proposed scope of work includes demolishing the existing building and replacing it with a new building.

Snyder Hall (originally called the Health Research Institute) is a 5-story concrete building built in 1962, designed in the mid-century modern style, and retains its historic integrity. The layouts of Webster, Spalding, Snyder, and Edmondson Halls create a rectangular courtyard designated as the "Memorial Quadrangle". The complex was built during a period of rapid growth during the 1960s and this quadrangle of buildings epitomizes the University's response to create science and engineering facilities to fill the needs of the 21st century. The buildings are interconnected examples of Modern Architecture in Hawai'i, incorporating energy efficient systems such as natural ventilation, sun-refracting fins and shields, and efficient vertical transportation systems. The proposed project will affect the design, workmanship, materials, location, setting, association and feeling of this historic building and the "Memorial Quadrangle".

An archaeological inventory survey (AIS) has not been conducted within the project area and archaeological historic properties were not identified during a recent archaeological monitoring for exterior lighting upgrades in four campus parking lots (Kennedy Theatre parking lot [KTPL], the Korean Studies parking lot [KSPL], the Spalding Hall parking lot [SHPL], and the Agricultural Science parking lot [ASPL]). Of these, the SHPL is closest to the current project area. The stratigraphic sequences recorded during archaeological monitoring indicated multiple fill layers. However, the report (Vernon and Clark, February 2018) indicates that the SHPD should be consulted regarding future ground disturbing activities within/near these vicinities due to the "presence of human burials on and near the UH at Mānoa campus." The closest recorded human burial was encountered during construction activities near Keller Hall in the

late 1980s, which is just north of the KTPL. This burial was designed as Site 50-80-14-4191 (Smith and Kawachi 1989; Douglas 1990). At this time, SHPD has insufficient information to determine that the proposed project will not affect buried historic properties, if present, including human burials. Therefore, **SHPD requests** archaeological monitoring be conducted for the project for identification purposes, in accordance with §13-279-3, HAR.

**SHPD looks forward to** receiving for review and acceptance an archaeological monitoring plan (AMP) meeting the requirements of §13-279-4, HAR, prior to project initiation. The AMP is subject to filing fees per §13-275-4(1)(5), HAR. Please complete the filing fee form (<https://dlnr.hawaii.gov/shpd/files/2013/05/SubmitFilingFees.pdf>) and submit it concurrently with the AMP to [dlnr.intake.shpd@hawaii.gov](mailto:dlnr.intake.shpd@hawaii.gov).

Per §13-275-7, HAR, the project will have an effect on significant historic properties, the effects will potentially be harmful, and therefore SHPD concurs with UH's determination of **"Effect, with proposed mitigation commitments"**.

As mitigation, SHPD proposes:

1. A Historic American Building Survey (HABS) long report per §13-275-8(a)(1)(B), HAR, to include:
  - full set of measured drawings depicting existing or historic conditions;
  - photographs with large-format negatives of exterior and interior views, photocopies with large-format negatives of select, existing drawings or historic views where available and produced in accordance with the U.S. Copyright Act (as amended);
  - history and description.
2. Updating the University of Hawai'i at Mānoa's 2012 Cultural Resources Management Plan (CRMP) to include:
  - updating all sections within the CPMP;
  - all facilities on the University of Hawai'i at Mānoa campus 50 years and older;
  - all 2012 - present project alteration information to buildings and the campus.

Information about HABS can be found at: <https://www.nps.gov/hdp/standards/habsguidelines.htm>. Please contact Mary McPartland ([mary\\_mcpartland@nps.gov](mailto:mary_mcpartland@nps.gov)) at the National Park Service to determine the level of the HABS report.

The HABS report is considered architectural survey report and therefore subject to filing fees per §13-284-4(a)(3), HAR. Please complete the filing fee form (<https://dlnr.hawaii.gov/shpd/files/2013/05/SubmitFilingFees.pdf>) and a State Inventory of Historic Places Request Form (<http://dlnr.hawaii.gov/shpd/review-compliance/forms/>). The HABS report, filing fee form, and the SIHP form can be submitted concurrently to [dlnr.intake.shpd@hawaii.gov](mailto:dlnr.intake.shpd@hawaii.gov).

**Before the work commences**, the proposed mitigation commitments must be acknowledged and agreed upon in writing by the University of Hawai'i at Mānoa.

Please contact Dr. Susan Lebo, Archaeology Branch Chief, at (808) 692-8019 or at [Susan.A.Lebo@hawaii.gov](mailto:Susan.A.Lebo@hawaii.gov) regarding archaeological resources, or Tanya Gumapac-McGuire, Architectural Historian, at (808) 692-8022 or at [Tanya.Gumapac-McGuire@hawaii.gov](mailto:Tanya.Gumapac-McGuire@hawaii.gov) regarding architectural resources or this letter.

Mahalo,

*Hinano Rodrigues*

Hinano Rodrigues  
Acting Administrator  
State Historic Preservation Division

cc: Seth Siaki, [siaki@hawaii.edu](mailto:siaki@hawaii.edu)  
Tate Ikehara, [tatei@hawaii.edu](mailto:tatei@hawaii.edu)

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HISTORIC PRESERVATION  
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March 29, 2021

Nelson A. Lee, Director  
Office of Project Delivery  
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Honolulu, HI 96822  
Email: nlee7@hawaii.edu

IN REPLY REFER TO:  
**LOG NO:** 2020.01999  
**DOC NO:** 2103JF04  
Architecture

Dear Mr. Lee:

**SUBJECT: HRS Chapter 6E-8 Historic Preservation Review  
Snyder Hall - Demolition  
Mitigation in the Form of a Historic American Building Survey  
2538 McCarthy Mall, Honolulu, HI 96822  
Waikiki Ahupua'a, Kona Moku, Island of O'ahu  
TMK: (1) 2-8-023:003 (por.)**

On August 31, 2020, the State Historic Preservation Division (SHPD) received the Historic American Building Survey (HABS) as a mitigation commitment for the proposed project which demolishes Snyder Hall (Log No. 2019.01296, Doc. No. 1909TGM06).

The HABS was accepted by NPS and assigned the number: HABS No. HI-611-A.

The SHPD received the filing fees per §13-275-8(a)(1)(B), HAR, and accepts the final report.

The State Inventory of Historic Places (SIHP) number for Snyder Hall: 50-80-14-08935.

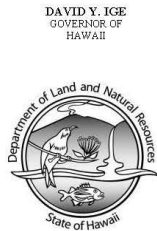
The SHPD looks forward to receiving the updated Cultural Resources Management Plan (CRMP) that was also requested as an additional mitigation measure before the project can proceed.

Please contact Julia Flauaus, Architectural Historian, at [julia.flauaus@hawaii.gov](mailto:julia.flauaus@hawaii.gov) for questions regarding architectural resources or this letter.

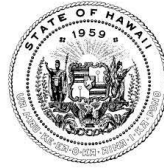
Mahalo,  
*Alan Downer*

Alan Downer, PhD.  
Deputy State Historic Preservation Officer  
Administrator, State Historic Preservation Division





DAVID Y. IGE  
GOVERNOR OF  
HAWAII



STATE OF HAWAII  
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March 30, 2021

Nelson A. Lee, Director  
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IN REPLY REFER TO:  
Project No.: 2020PR33909  
Submission No.: 2020PR33909.002  
Log No. 2020.01802  
Doc. No. 2103SCH13  
Archaeology, Architecture

Dear Mr. Lee:

SUBJECT: **HRS Chapter 6E-8 Historic Preservation Review –  
University of Hawai'i at Mānoa Snyder Hall Demolition  
Archaeological Monitoring Plan  
Updating UH Mānoa 2012 Cultural Resources Management Plan  
2538 McCarthy Mall, Honolulu, HI 96822  
Waikiki Ahupua'a, Kona District, Island of O'ahu  
TMK: (1) 2-8-023:003 por.**

This letter provides the State Historic Preservation Division's (SHPD's) review of this subject revised archaeological monitoring plan (AMP) titled, *Archaeological Monitoring Plan for the University of Hawai'i at Mānoa Snyder Hall Demolition Project at 2538 McCarthy Mall, Waikiki Ahupua'a, Kona District, Island of O'ahu, Hawai'i [TMK: (1) 2-8-023:003 (por.)]* (McElroy et al., Revised March 2021). SHPD received the initial draft archaeological monitoring plan (AMP) on August 7, 2020. SHPD requested revisions to the plan via email on March 20, 2021 (Susan Lebo [SHPD] to Windy Keala McElroy [Keala Pono Archaeological Consulting]). SHPD received the revised AMP (McElroy et al., Revised March 2021) via HICRIS on March 23, 2021 (Submission No. 2020PR33909.002).

The proposed scope of work includes the demolition of Snyder Hall on the UH Mānoa campus and replacing it with a new building. In a letter dated October 19, 2019 SHPD reviewed the project and requested archaeological monitoring for identification purposes. Additionally, SHPD requested architectural mitigation including completion of a Historic American Building Survey (HABS) long report and an update to the University of Hawai'i at Mānoa's 2012 Cultural Resources Management Plan (Log No. 2019.01296, Doc. No. 1909TGM06). In a letter dated March 29, 2021, SHPD accepted the HABS long report (Project No. 2020PR34106, Log No. 2020.01999, Doc. No. 2103JF04). On March 30, 2021, SHPD was informed via email that the University's Facilities Contract Office is currently processing a contract for the CRMP and is expected to issue a Notice to Proceed (NTP) within the next 2-3 months. Following the issuance of the NTP, the CRMP documentation is anticipated to be completed within one year and the report subsequently will be submitted to SHPD (Sharon Williams [UH Office of Project Delivery] to Susan Lebo [SHPD Archaeology Branch Chief]).

Keala Pono Archaeological Consulting prepared the AMP in support of the subject project. The AMP provides a historical background section, a summary of previous archaeological investigations conducted in the area, anticipated historic properties, and the following archaeological monitoring provisions:

- A coordination meeting will be conducted between the construction team and monitoring archaeologist and/or principal investigator prior to construction activities so the construction team is aware of the monitoring plan;

Mr. Lee  
March 30, 2021  
Page 2

- On-site monitoring will be conducted for all ground disturbing activities. One monitor is required for each piece of ground altering machinery during this project;
- The archaeological monitor has the authority to temporarily halt all activity in the area in the event of a potential historic property being identified, or to record archaeological information, as needed;
- If non-burial historic properties are identified, documentation shall include, as appropriate, recording stratigraphy using USDA soil descriptions, GPS point collection using a sub-meter accurate Trimble GPS unit, recordation of feature contents through excavation or sampling of features, screening of features, representative scaled profile drawings, photo documentation using a scale and north arrow, and appropriate laboratory analysis of collected samples and artifacts. Additionally, photographs and profiles of excavations will be collected from across the project area even if no significant historic properties are encountered. Representative profiles will be a minimum of 2-meter-long sections;
- If human remains are identified, work will cease in the vicinity and the find shall be secured, and provisions outlined within the Hawaii Revised Statutes (HRS) §6E-43 and HAR §13-300-40, and any SHPD directives, shall be followed;
- Collected materials not associated with burials will be temporarily stored at the archaeological firm's office/laboratory until an appropriate curation facility is selected, in consultation with the landowner and the SHPD; and
- Any changes in these provisions shall occur only with written approval from the SHPD.

The revised AMP meets the minimum requirements of HAR §13-279-4. **It is accepted.** Please send one hard copy of the document, clearly marked FINAL, along with a text-searchable PDF of the AMP and a copy of this letter to the Kapolei SHPD office, attention SHPD Library. Please also send a text-searchable PDF copy of the AMP to SHPD via HICRIS to Project No. 2020PR33909 using the Supplemental Attachment option and a PDF copy to [Lehua.K.Soareshawaii.gov](mailto:Lehua.K.Soareshawaii.gov).

**SHPD hereby notifies the University of Hawai'i at Mānoa** that the revised AMP and HABS are accepted and project initiation may commence.

**SHPD requests** written notification at the start and conclusion of archaeological monitoring. Within 30 days of completion of archaeological monitoring fieldwork, SHPD looks forward to receiving for review and acceptance a brief archaeological monitoring letter report of findings as specified in HAR §13-282-3(f)(1). Subsequently, SHPD looks forward to receipt of an archaeological monitoring report meeting the requirements of HAR §13-279-5 for review and acceptance.

**When completed**, please submit the draft archaeological monitoring report to our office via HICRIS to Project 2020PR33909 using the Project Supplement option.

**The SHPD looks forward** to receiving the updated Cultural Resources Management Plan (CRMP) that was also requested as an additional mitigation measure. When completed, please submit to Project 2020PR33909 using the Project Supplement option

Please contact Susan A. Lebo, Archaeology Branch Chief, at [Susan.A.Lebohawaii.gov](mailto:Susan.A.Lebohawaii.gov) or Samantha Hemenway, O'ahu Island Archaeologist, at [Samantha.hemenwayhawaii.gov](mailto:Samantha.hemenwayhawaii.gov) for any questions regarding this letter.

Aloha,  
*Alan Downer*

Alan S. Downer, PhD  
Administrator, State Historic Preservation Division  
Deputy State Historic Preservation Officer

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