



HAWAI'I BOARD ON GEOGRAPHIC NAMES (HBGN)

Tuesday, August 3, 2021

2:30 p.m.

Leiopapa A Kamehameha Building
Office of Planning, 6th Floor Conference Room
235 S. Beretania Street
Honolulu, Hawai'i 96813

Zoom Meeting information:

<https://bit.ly/hbgn-20210803>

Meeting ID: 943 5024 5940

Passcode: 380644

A G E N D A

1. Call to Order
2. Review of Meeting Minutes for July 6, 2021
3. Public Comments
4. Announcements
5. Discussion and Action on Husten Ditch / Ala Naio (Ruby)
6. Discussion and Action on Lo'ihi / Kama'ehu
7. Review selected place names on the island of Hawai'i (Camara)
8. Adjourn

This meeting of the Hawai'i Board on Geographic Names (HBGN) will be available for live viewing via Zoom.

Zoom Meeting information:

<https://bit.ly/hbgn-20210803>

or

<https://zoom.us/j/94350245940?pwd=dk1aSXpwTzEyN2the1BtUDRuSUNIUT09>

Meeting ID: 943 5024 5940

Passcode: 380644

If you need an auxiliary aid/service or other accommodation due to a disability, contact:

Arthur Buto
Email: arthur.j.buto@hawaii.gov
Phone: (808) 587-2894
Fax: (808) 587-2824

as soon as possible, preferably by Tuesday, July 27, 2021. If a response is received after July 27th, we will try to obtain the auxiliary aid/service or accommodation, but we cannot guarantee that the request will be fulfilled.

Upon request, this notice is available in alternate formats such as large print, Braille, or electronic copy.

MINUTES DRAFT
FOR THE MEETING OF THE
HAWAI'I BOARD ON GEOGRAPHIC NAMES

DATE: July 6, 2021
TIME: 2:30 p.m.
PLACE: Leiopapa A Kamehameha Building
Office of Planning, 6th Floor Library
235 S. Beretania Street
Honolulu, Hawai'i 96813

AGENDA ITEM 1: Call to Order

Mr. Marzan called the meeting to order at 2:32 p.m.

The following were in attendance:

MEMBERS: Marques Marzan (Bishop Museum)
Meyer Cummins (Land Survey Division)
Kapā Oliveira (University of Hawai'i at Mānoa) *left the meeting at 3:35pm*
Holly McEldowney (Department of Land and Natural Resources)
Niniau Kawaihae (Department of Hawaiian Home Lands)
Arthur Buto for Mary Alice Evans (Office of Planning and Sustainable
Development)
Brad Ka'aleleo Wong (Office of Hawaiian Affairs) *joined the meeting at
2:37pm and left the meeting at 4:00pm*

ABSENT: None

GUESTS: Jennifer Runyon (USGS)
Matthew O'Donnell (contractor for USGS)

AGENDA ITEM 2: Review of Meeting Minutes for June 1, 2021

MOTION: Ms. Kawaihae moved to accept the minutes of June 1, 2021; Ms. McEldowney seconded the motion.

The members present voted unanimously to approve the meeting minutes of June 1, 2021.

AGENDA ITEM 3: Public Comments

None.

AGENDA ITEM 4: Announcements

Mr. Buto announced that the Governor's emergency proclamation allowing participation by Board members using remote technology will expire after the Board's August meeting – thereafter until a new law takes effect in January 2022, Board meetings will return to in-person meetings in the Office of Planning's conference room. The Office of Information Practices has said that a Zoom link can still be included in the meeting notice to allow members of the public to participate remotely. But Board members wishing to participate remotely must have their location included in the meeting notice and the public will have the opportunity to attend from that location as well.

Ms. Kawaihae announced that this Friday marks the 100th anniversary of the signing by President Warren G. Harding of the Hawaiian Homes Commission Act that created the Hawaiian Homes Commission and Hawaiian Homes trust lands. A short program will be livestreamed on Friday at 9am with Senator Schatz, Governor Ige, Commission Chair William Aila, other members of the Hawaiian Homes Commission, and leadership from the homestead organizations. Ms. Kawaihae provided a link to the news release containing a link to the livestream.

AGENDA ITEM 5: Discussion and Action on Lō'ihī / Kama'ehu

Mr. Wong confirmed that in previous discussions on this topic the Board had decided not to establish another Permitted Interaction Group (PIG), but to keep it on the agenda to address any new research / information.

Mr. Camara doesn't know what a PIG would add. With the archival sources as documentation, he recommends approving *Kama'ehuakanaloa* as the name and waiting for and listening to comments and/or objections that may come from the public. He believes that this naming issue has been languishing and that an action should be taken – like *Island of Hawai'i* and *State of Hawai'i*.

Ms. Oliveira supports making a naming decision with the information that we have. Mr. Buto confirmed that the agenda item allows for a decision to be made.

Ms. McEldowney confirmed that *Lō'ihī* would remain as a variant name.

Mr. Wong stated that in the wa'a canoe realm, the name *Kama'ehu* is already in use. OHA's publication *Ka Wai Ola* could be used for public outreach.

MOTION: Mr. Wong moved that the Board approve changing the name of the feature to *Kama'ehuakanaloa* from *Lō'ihī*. Ms. Kawaihae seconded the motion.

Mr. Wong asked if there are federal agencies that use the name of this feature, e.g., USGS. Mr. Camara stated that Hawai'i Volcano Observatory (HAVO) does, and the University of Hawai'i conducts dives there. He asked if a nickname, *Kama'ehu* could also be accommodated. If that is a variant name, then the standard practice is for the primary name to be used in the map with a desired variant in parentheses.

Mr. Camara asked under whose jurisdiction this feature falls. He noted that it is approximately 20 miles off the coast of Hawai‘i. Mr. Wong noted that State jurisdiction extends from 0 to 3 nautical miles from the coastline, territorial waters are 12 miles out. Although not in the State’s jurisdiction, it is considered part of Hawai‘i’s pae ‘āina.

Mr. O’Donnell suggested that the Advisory Committee on Undersea Features (ACUF), a BGN permanent advisory board, be consulted. ACUF has purview over anything beyond 12 miles; the Domestic Names Committee (DNC) has purview over features 0 to 12 miles. He searched the Foreign Names database for Undersea Features and found *Loihi* with no ‘okina or kahakō. Ms. Runyon suggested submitting a name change request to the BGN’s ACUF with a recommendation of support from HBGN. If the Board sends the request to her, she can forward it to ACUF. It would end up as a name change in the Foreign Name Committee’s database; they manage the Undersea Features too. The advisory committees make recommendations and the full US BGN votes on them. This could be considered at the full US BGN meeting in October.

Ms. Oliveira asked whether HBGN should consider the shorter name *Kama‘ehu*, as a practical matter rather than the longer *Kama‘ehuakanaloa* as the primary name.

Mr. Camara said that the Hālau o Kekuhi CD was called “*Puka Kama‘ehu*.” But in the Huluhia chant, it says “keiki ‘ehu, kama ‘ehu a Kanaloa.” And in the Hawaiian Airlines inflight magazine, *Hana Hou* from 2003, it says that the “Edith Kanaka‘ole Foundation has petitioned to officially change the name to *Kama‘ehu*...” During this discussion Mr. Camara reached out to Auntie Pua Kanahale, who said that she’d be happy with the long form of the name with the short form as a variant.

Mr. Buto will put together a formal packet.

Mr. Wong asked if there is any anticipated pushback from federal agencies that might object to a name change. ACUF will probably put out feelers to their stakeholders when the time comes and would get back to HBGN for its reconsideration. Mr. Camara noted that in his experience with HAVO scientists, recent name corrections and changes have not been met with opposition.

Mr. Marzan called for a vote. The motion was approved unanimously.

Mr. Wong will put in *Ka Wai Ola* and also advocate with its federal advocacy / lobbyists. Mr. Buto suggested a joint press release with OHA. Mr. Camara suggested holding off on a public announcement until ACUF and US BGN approve.

ACUF is required to issue a decision packet five business days before the full US BGN quarterly meeting. Ms. Runyon will find out when ACUF will meet in advance of the US BGN’s October meeting. That should be the target date for formal name change packet. She can find out when they would want to receive a name change packet.

AGENDA ITEM 6: Review selected place names on the island of Hawai‘i (Camara)

Mr. Camara is working on a list of 10-12 name changes, some of which are to remove the word “crater” from the names of the craters. There are other name changes as well, e.g., in the SW Rift towards Pahala, on the maps is Pu‘ukou. That pu‘u is very pointy, like an upside-down shave ice cone. In the dictionary *kōū* means “to look about in all directions,” which is what you can do up there. There are no archival sources that support that, but it is evident from the feature, and there are no kou trees in that area.

In the Tree Molds area of the park in the lower part of Mauna Loa Road, the old traditional name is Kuapa‘awela, not used for many decades. He wants to discuss with the Kupuna group whether or not to name some features for the sake of naming them, because they don’t have a known Hawaiian name or they have a generic English name. He’s hoping that the Kupuna group will discuss this at their August meeting, then he bring any naming recommendations back to HBGN for its September meeting.

Mr. O’Donnell would like to follow up on a minor spelling correction for one of the features on Moloka‘i on the edge of the national park. The National Park Service (NPS) asked about the significance of the name change, *Kalāhuapueo* to *Kalāhuipueo*, changing the “a” to an “i.” Mr. Buto will look for the minutes from the meeting at which this change was decided.

Mr. O’Donnell and Ms. Runyon indicated that they did not receive the packet of name changes from HAVO. Mr. Buto will send them the packets and will also send them to Melia Lane-Kamahele.

[362749] **Ohiahuea Stream.** Mr. Camara pointed out that hu‘ea makes sense because in the Hawaiian Dictionary [Pukui and Elbert] “*Hu‘ea pau ‘ia e ka wai*” means all washed away by water. This stream originates in the mountains and ‘ōhi‘a might be washed away. Mr. Marzan added that he’s heard many stories of heavy rains the area causing trails to become uncrossable. Mr. Camara noted that the Feature Class is Stream making “stream” in the feature name redundant.

The recommended name and spelling is “**Ōhi‘ahu‘ea.**”

Ms. Runyon noted that removing “stream” from the name would require a name change. The US BGN is more flexible now than it was in the past to removing an English descriptor to a Hawaiian feature name.

Mr. Cummins said that having the word “stream” as part of the feature label on a map helps to clearly identify the feature and reduce confusion with names of other features in the area. More current cartographic standards and practices help identify features by other means as well, such as their symbology and font type. Ms. Runyon added that for USGS maps, the label is applied in the middle third of the feature, so removing the word “stream” from the name would result in the label shifting.

Mr. Camara noted that Hawai‘i Volcanoes National Park is in the process of putting together a list of names of craters in which the descriptor “crater” would be removed from the name. Ms. Runyon cautioned that these name changes would have to be approved by the US BGN first.

Mr. O’Donnell provided a link to a stream feature that the US BGN allowed staff to make the name change, removing “stream” from the name, without going through the full US BGN process. Ms. Runyon’s recollection was that this might have taken place in the late 1990’s and at that time it probably should have gone to the US BGN. She noted that for the 500 or so streams in Hawai‘i that have the word “stream” in the name, if the HBGN and the people of Hawai‘i are comfortable with the feature name without the generic descriptor, the US BGN would probably allow the staff to revise those in the GNIS in the same way that they do for straightforward spelling corrections.

Mr. Cummins stated that as a land surveyor he sees the value of having the word “stream” in the feature name and on the map label. Having the descriptor in parentheses might mitigate confusion while preserving the traditional feature name.

Mr. Camara asked if the Board can address on a future agenda other features in which the Feature Class has been appended to the feature name, and possibly including in the style guidelines.

*Status Key: 1 = Not Hawaiian; 2 = Not Reviewed; 3 = More Research Needed; 4 = HBGN Corrected
5 = Already Correct in GNIS; 6 = Name Change*

Stat	FeatID	Name	Class	Corrected	Source	Notes	USGSQuad
6	362749	Ohiahuea Stream	Stream	‘Ōhi‘ahu‘ea	HBGN	PNH: not listed; HBGN: Hawaiian Dictionary [Pukui and Elbert] “Hu‘ea pau ‘ia e ka wai” means all washed away by water; this stream originates in the mountains and ‘ōhi‘a might be washed away; Mr. Marzan shared that he’s heard many stories of heavy rains the area causing trails to become uncrossable; it was noted that the Feature Class is Stream making “stream” in the feature name redundant, 07-06-21.	Honokane

AGENDA ITEM 7: Adjourn

Next meeting will be Tuesday, August 3, 2021 at 2:30 p.m. via Zoom. It will be the last remote participation meeting allowed under the current Emergency Proclamation which will expire later that day.

Ms. Kawaihae noted that she will be on jury duty at the time of the August meeting. She will keep the Board informed of her availability.

Mr. Marzan adjourned the meeting at 4:18 p.m.

**RESOLUTION TO CHANGE THE NAME OF THE HAUSTEN DITCH TO ITS HISTORICAL
HAWAIIAN NAME ALA NAIIO STREAM**

WHEREAS, Whenever possible the State of Hawaii and the County of Honolulu should endeavor to return natural features to their historical names and associated meanings;

WHEREAS, The currently named Husten Ditch originates as a seep or spring at the terminus of the Moiliili Flow or Sugar Loaf Flow of basaltic rock, and the water course flows to the Ala Wai Canal outflow. The length between the *makai* side of the Marco Polo Condominium and the Ala Wai Canal remains largely in its original banks. (The *mauka* portion is channelized or covered.);

WHEREAS, The origin of the stream is contiguous with the Land Commission Award 1631 awarded to Naio. It is not known if the awardee took his name from the stream or if *naio*, false sandalwood, grew on the rocky terminus of the Moiliili Flow;

WHEREAS, Husten Street is named for Henry Husten. But this was not a good fit for the neighborhood. He misinformed his neighbors that he circulated a petition was for a sewer line to be placed on the street at the time named Thompson Street. Included in the petition was to change the name to Husten Street. (The need for the sewer hookup was because cesspools often overflowed or had to be pumped out.);

WHEREAS, Mr. Husten was not a particularly good neighbor. He bulldozed much of the pond areas associated with the Ai family (later Ai-Husten property) filling in much of the ponds in the area. He also was known to shoot at rats that were associated with the ponds.

BE IT RESOLVED THAT THE ALA NAIIO STREAM be so named going forward on all maps and documents.

FYI

The National Historic Preservation Act defines *historic resource*, or *historic property*, as: ***any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register (of Historic Places); such term includes artifacts, records, and remains which are related to such a district, site, building, structure, or object.***

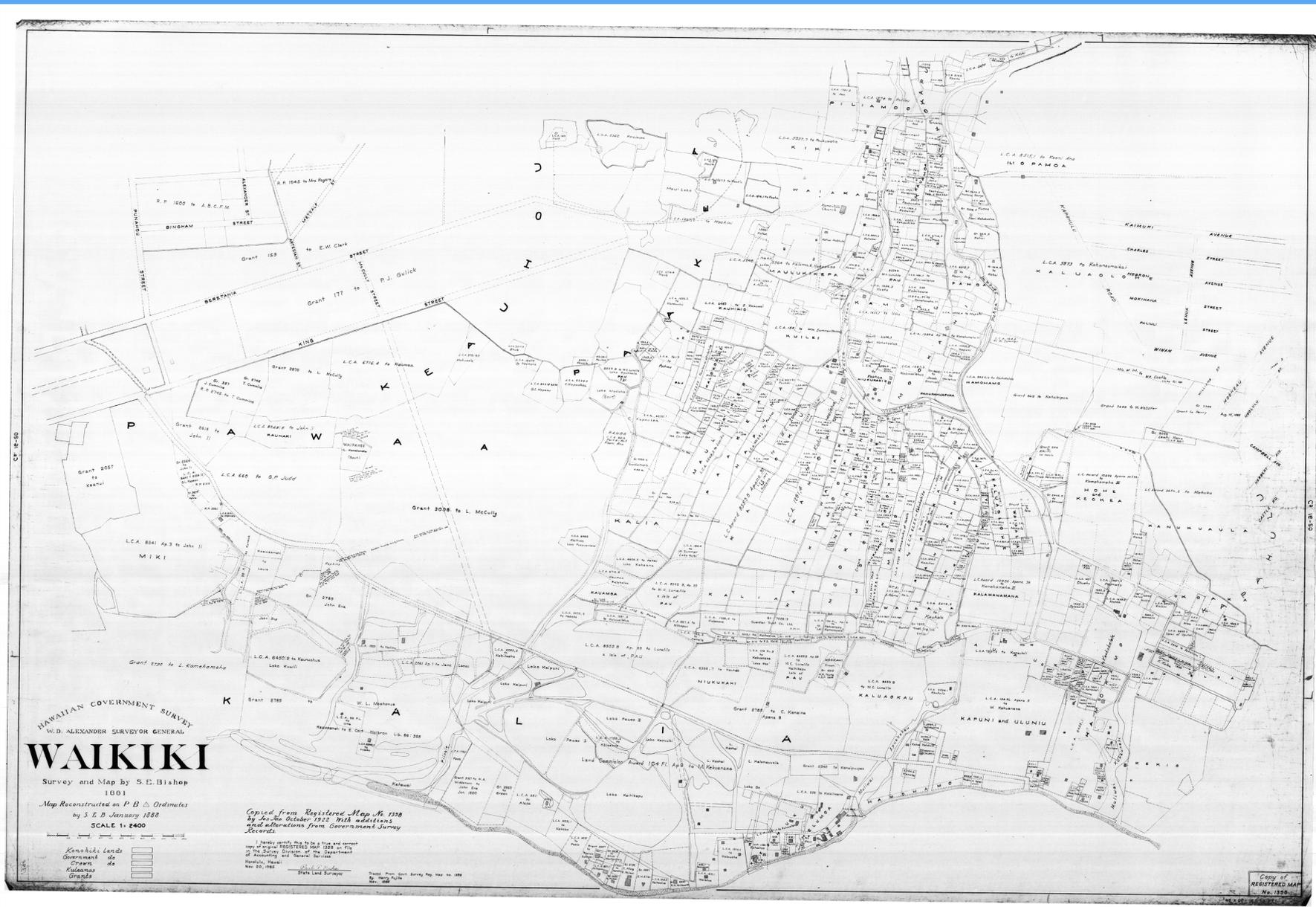
The National Register, in turn, defines a *historic property* as a district, site, building, structure, or object significant in American history, architecture, engineering, archeology, and culture. 2

Where land is relatively built up, as is the case in most communities undertaking historic resources surveys, both prehistoric and early historic archeological sites are likely to be more or less invisible, buried under modern, created land surfaces and structures. As a result, archival research is especially important to the conduct of an archeological reconnaissance; quite often, the reconnaissance consists of nothing more than field-checking predictions made on the basis of archival research.

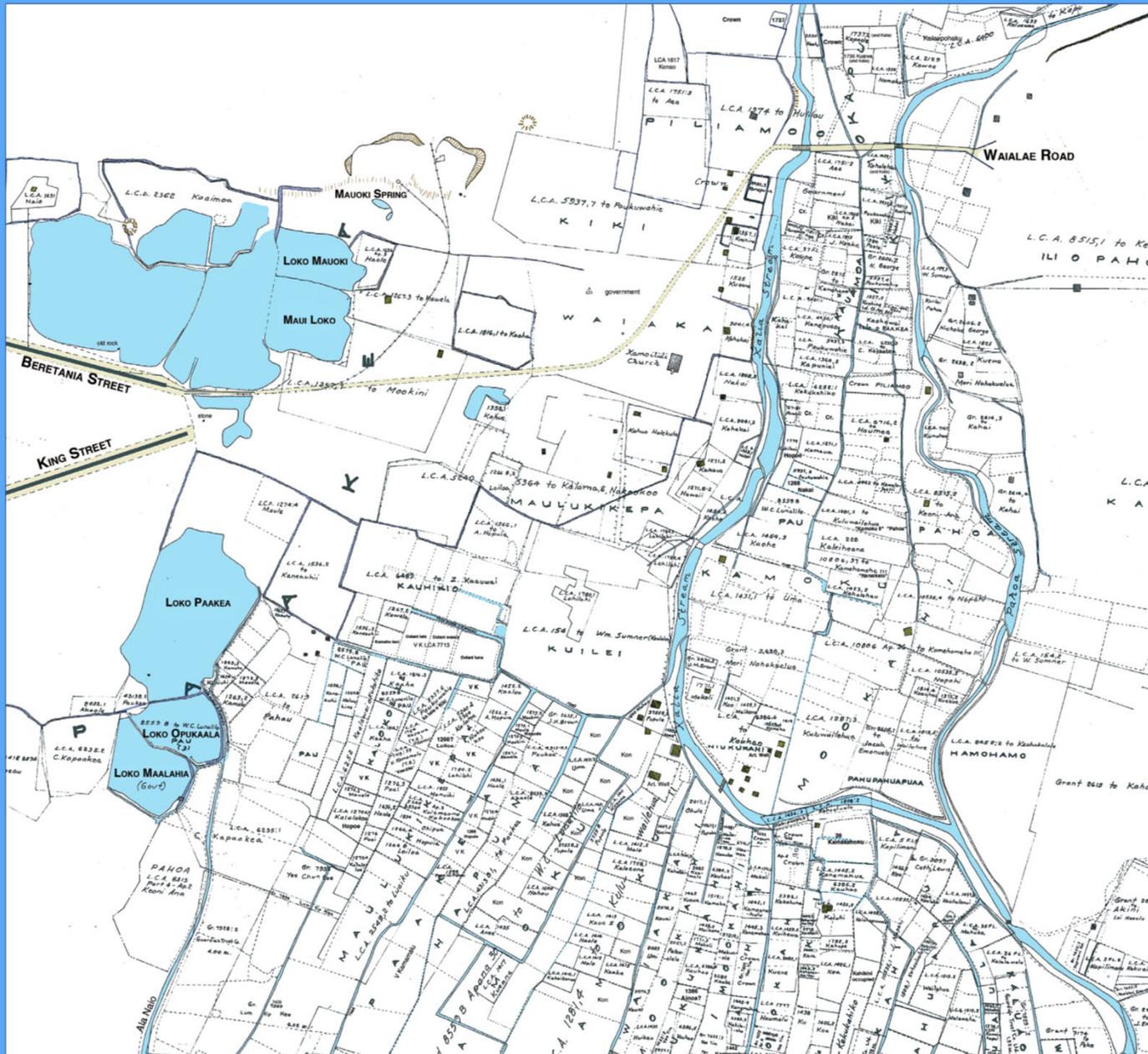
The first step in an archeological reconnaissance, then, is to develop *predictions* about where archeological sites are likely to be found. Such predictions are developed based on the following kinds of information, developed through archival research:

3. Data on local history and land use. The history of the community should indicate what groups of people arrived at different times, where they lived, what sorts of activities they engaged in, and so on.

Ala Naio
Ala Naio Stream

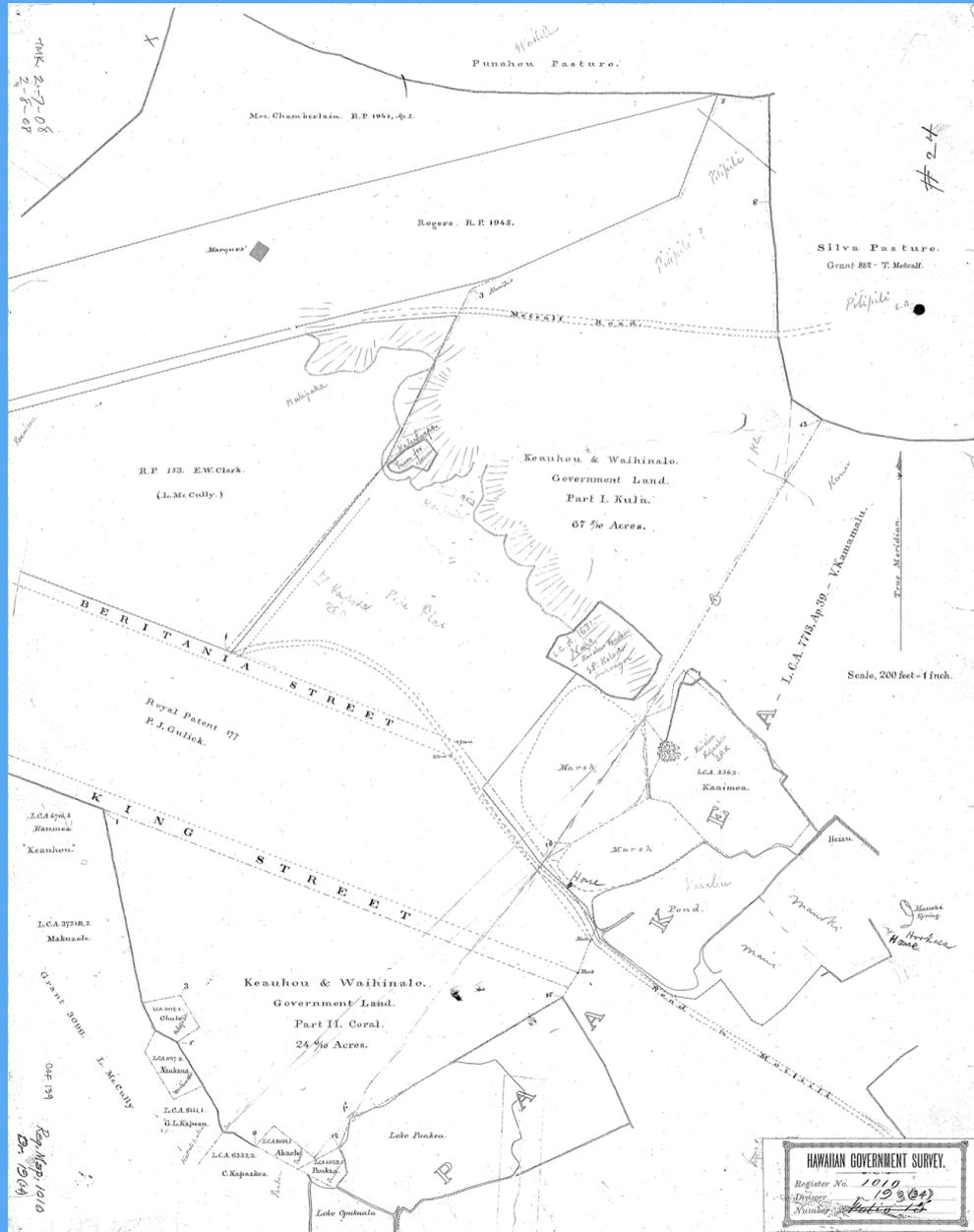


HGS map Waikīkī – including Mō'ili'ili – S.E. Bishop, 1881

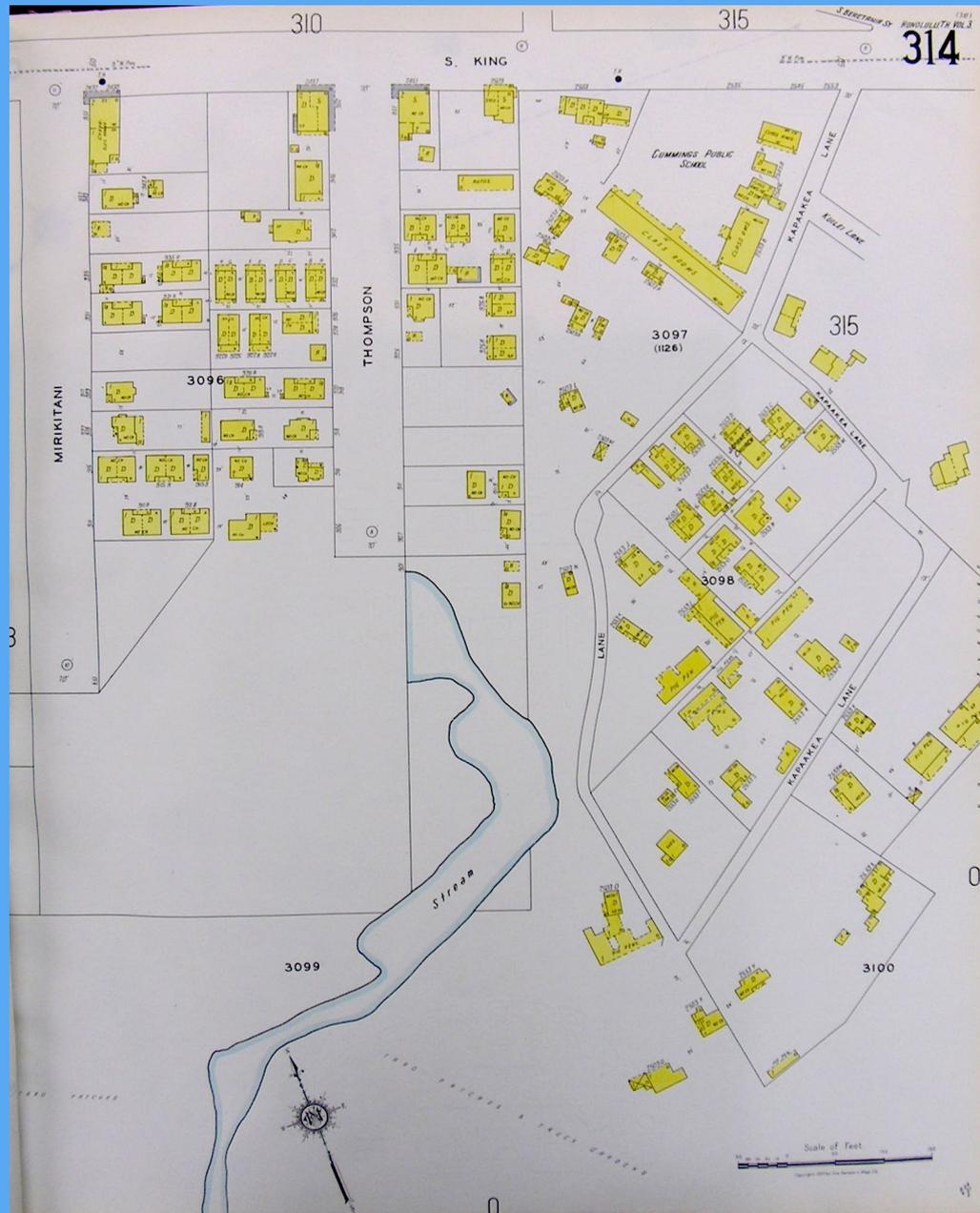


Laura Ruby, 1881 S.E. Bishop Map

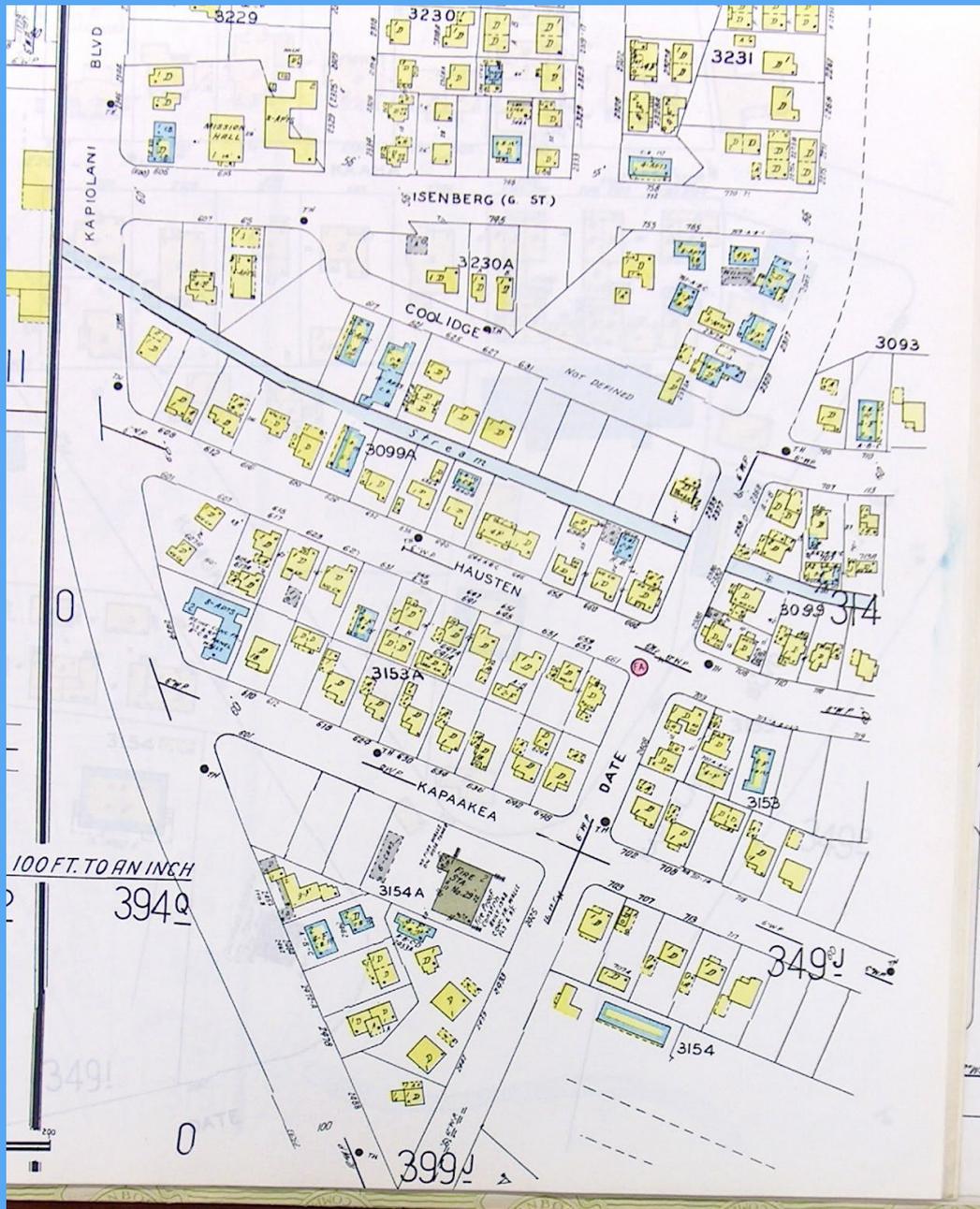
This section of the 1881 S.E. Bishop map of Waikanae (right) is colored to emphasize the tremendous importance of [a]i, fresh [a]ter, in the greater Waikanae area.



HGS Reg. Org 1010 – Mō'ili'ili -- Pa'akea and Keauhou 'ili, 1904



Sanborn map -- Mō'ili'ili -- before the 1920s



Sanborn map -- Mō'ili'ili after the 1930s



LAURA RUBY

The diversion dam for the Ka Papa Lo'i o Kānewai 'auwai is made up largely of boulders naturally occurring in the stream bed. It is augmented by boulders moved into place to make the dam higher, and some concrete added to fill the holes.

Ala Naio Stream or Kahawai Ala Naio

Today, the Ala Naio Stream is a channelized ditch. It emerges from its covered portion at Hausten Street and then flows under Date Street and Kapi'olani Boulevard, under the Marco Polo condominium, and through the Ala Wai Park to join the Ala Wai Canal. Originally, it flowed to the ocean at the Fort DeRussy area. The naming of Ala Naio suggests its history and function in the Waikiki *ahupua'a*. *Ala* (the way) to *naio* (possibly a false sandalwood area on the rocky Mō'ili'i Flow out cropping). Naio is also the name of the Land Commission Award 1631 claimant mauka of the steam. It is not known if the claimant took his name from the place. The banks of the Ala Naio might be the causeway that Captain Vancouver mentioned in his journal: "To the northward through the village . . . an exceedingly well-made causeway about twelve feet broad, with a ditch on either side" (Vancouver, *A Voyage of Discovery to the South Pacific Ocean*, 1798, 360-365). The 1881 Bishop map shows mauka-makai pathways along the banks of the Ala Naio. The Ala Naio Stream appeared to have originated from Loko Opukaala (see p. 16).

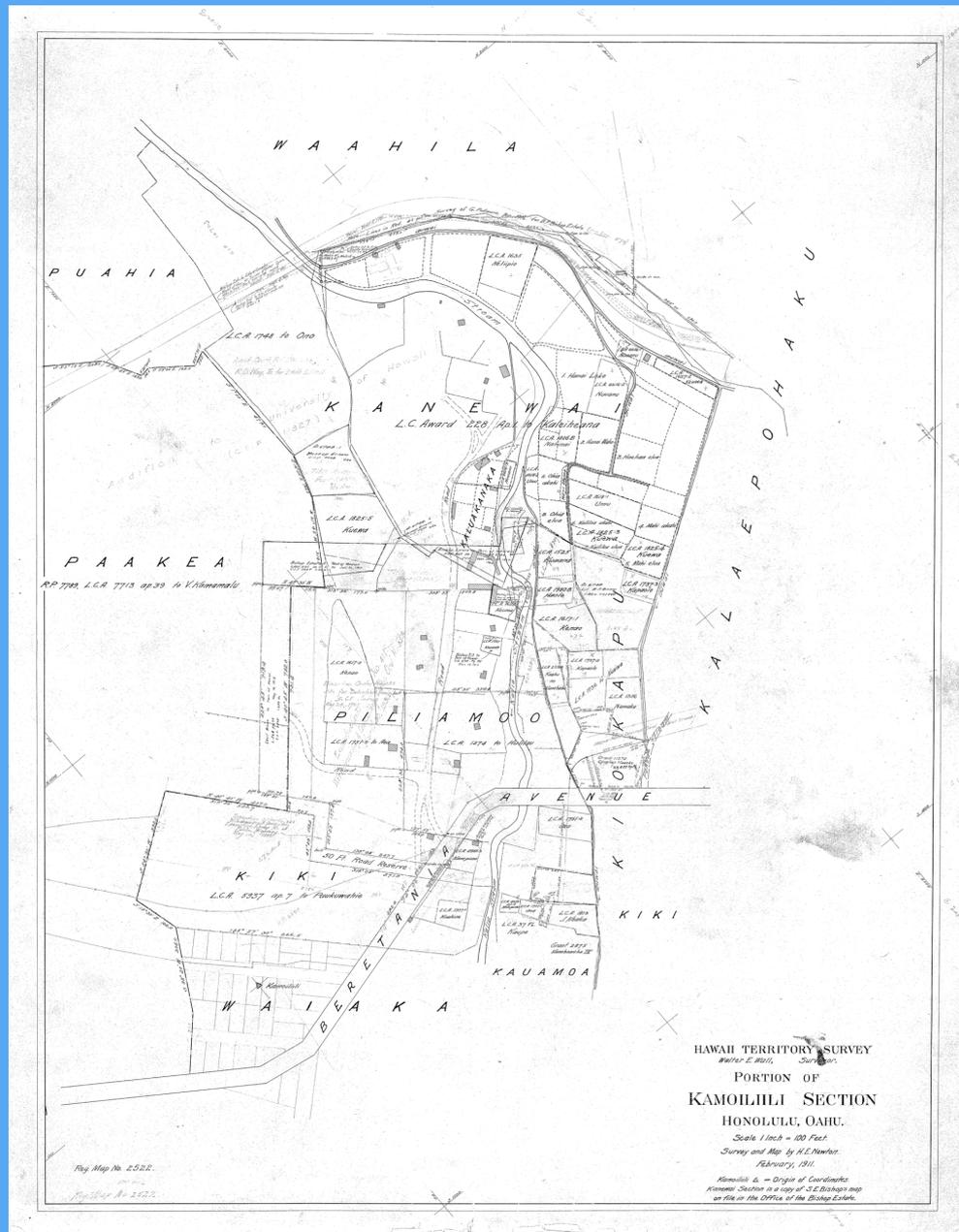
Takeshita, an avid fish collector and breeder since the 50s, found cichlids (*Cichlasoma cutteri*), which look like convict cichlids in the Ala Naio. The local kids used to call them "sculli." Also gobies (*Specie-unknown*) were found in the Ala Naio. Gobies like to hide in holes in the river bottom so they were called "scarecrow" fish by the local kids. They have a beautiful red, white and blue colored dorsal fin. They have also been found in the nearby Makiki Ditch. Takeshita also found guppies (*Poecilia reticulata*), also known as rainbow fish or millions fish, in the same habitat with the mosquitofish. Stan Lum believed that "the kids mistakenly called female guppies "medakas" because their grandparents from Japan thought that's what they were. They called the colorful male guppies 'rainbows.'"

"In the 50s, there were also wild moons (*X. maculatus*) in the Ala Naio Stream," reported Takeshita. "Three species of the genus *Xiphophorus* do interbreed to give you hybrids. The species are the swordtail (*X. helleri*), the Variatus (*X. variatus*) and the moons (*X. maculatus*). The wild moons definitely came from The Willows and established themselves in the Ala Naio Stream. I don't believe that these moonfish are in the Ala Naio now. A lot of the fishes that inhabit the Ala Naio are no longer there. While Yamamoto and Tagawa's book mentions the Ala Naio, Yamamoto was not able to find and collect this goby, which I called the "scarecrow" or the "sculli" in the 1990s," he added. Today, the Ala Naio holds mainly brackish water, has very little fresh water flow, but lots of tilapia.



LAURA RUBY

Naio, false sandalwood (*Myoporum sandwicense*) is a small to large tree. House timbers and smaller thatching poles were made from this very strong wood. It is scented like 'iliahī (sandalwood). After sandalwood was depleted *naio* was a poor substitution for the sandalwood trade with China. *Naio* is also the name of an LCA claimant or his *kuleana* (property, claim). This location may be the source for the Ala Naio Stream. Ground *naio* grows close to the ground.



HGS Reg. Org map 2522 -- Kamō'ili'ili –Kānewai and Piliamo'ō 'ili H.E. Newton, 1911

**UNITED STATES BOARD ON GEOGRAPHIC NAMES
UNDERSEA FEATURE NAME PROPOSAL**

NAME PROPOSED: Kama'ehuakanaloa

LOCATION: about 20 miles off the southeast coast of the island of Hawai'i

Ocean or Sea: Pacific Ocean

Coordinates: DD MM SS.SS (2 decimal place)

point feature or center point:.....Lat. 18 56' 00" N Long. 155 16' 00" W

linear feature (from):.....Lat. _____ Long. _____

linear feature (to-midpoint or turning point):..... Lat. _____ Long. _____

linear feature (to):.....Lat. _____ Long. _____

areal feature - Northeast corner:Lat. _____ Long. _____

- Southeast corner:.....Lat. _____ Long. _____

- Southwest corner:.....Lat. _____ Long. _____

- Northwest corner:.....Lat. _____ Long. _____

DESCRIPTION:

Feature type: seamount (SMU) **Size and shape:** _____

Depth (max. and min.): 975 m / 3,200 ft **Steepness, etc.:** _____

Associated features: _____

CHART OR MAP REFERENCE:

Name and feature shown on: _____

Feature shown but not named on: _____

REASON FOR CHOICE OF NAME: In a line from the chant, *He Mele Inoa no Aikanaka*,

"Keiki 'ehu Kama 'ehu a Kanaloa," meaning the reddish-haired child of Kama [Maui] from Kanaloa

(child of earth and sea). If variant names are supported for Undersea Features, HBGN additionally

recommends "Kama'ehu" as a shortened version of the name, as well as the current name of the feature,

"Lō'ihī."

DISCOVERY FACTS:

Date: ca. 1955 **Discoverer (individual, ship):** Kenneth O. Emery

Sounding equipment used: _____ **Navigation type:** _____

Estimated horizontal accuracy: ± _____ n.m./km **Track spacing, crossings:** _____

SUPPORTING MATERIALS: Please enclose references, reprints, profiles, maps, etc.

Please see attached.

SUBMITTED BY: Arthur Buto

Organization and address: Hawai'i Board on Geographic Names

Office of Planning and Sustainable Development, State of Hawai'i

235 S. Beretania Street, 6th floor, Honolulu, Hawai'i 96813

Please mail to:

Executive Secretary
US Board on Geographic Names
National Geospatial-Intelligence Agency
7500 GEOINT DR
Springfield, Virginia 22150-7500, USA
Mail Stop N-62

Submarine Topography South of Hawaii¹

K. O. EMERY²

GEOMORPHIC AND STRUCTURAL evidence strongly suggests that the center of volcanism in the Hawaiian Islands has migrated slowly from northwest to southeast. This movement is reflected in a progression from the eroded and reef-covered volcanic platform of Midway Island to the periodically active volcanoes of Kilauea and Mauna Loa on the island of Hawaii. From the general age relationships of the islands it might be supposed that a still younger center of volcanism may now be building one or more new cones on the sea floor southeast of Hawaii, eventually to form new islands at that end of the chain.

Soundings shown on charts of the area south and southeast of Hawaii prior to 1954 were taken mostly by various ships that happened to be passing through the area. They are too sparse and poorly positioned to reveal many details of the topography; however, several single isolated soundings on U. S. Coast and Geodetic Survey Chart No. 4179 suggested the presence of as many separate submarine mountains. At the request of the Office of Naval Research the Commander Service Forces Pacific made available a ship for a brief bathymetric survey of these areas. This ship was U.S.S. Patapsco, AOG 1, a 16,000 barrel 10-knot oil tanker that carried a NMC-2 echo-sounder. The great stability of the ship permitted routine sounding operations to be carried on in spite of the fact that most of the sounding traverses paralleled the

trough of waves produced by winds of up to Force 6.

Appreciation is due Lt. J. W. Downing, commanding officer, and Lt. j.g. C. J. Kelly, navigator, for their cooperation and interest in the work. The Hawaiian names for the five seamounts were kindly supplied by Mrs. Mary K. Pukui and Mrs. Martha Hohu of the Bernice P. Bishop Museum in Honolulu and by Dr. Gordon A. Macdonald, director of Hawaiian volcano observatory. Dr. Macdonald kindly read the manuscript, suggesting several improvements. The study was made possible by funds provided by Office of Naval Research contract Nonr 228 (06).

METHOD

Between 0100 June 29 and 1000 July 2, 1954 about 800 miles of sounding traverses were run in the area of Figure 1. Soundings were read visually at one-minute intervals by crew-members but only alternate soundings were plotted on the base chart for Figure 1. Index error and motor speed error were constant within the accuracy of their measurement. Accurate positions were obtained within 4 miles of shore by visual pelorus bearings. Radar fixes to 15 miles from shore proved less reliable. Only star fixes could be used farther off-shore because the area is one of base line extension for Loran. Accordingly, the survey was set up in such a way that sounding in the nearshore areas was done during the daytime, and the long radial traverses were started from a land fix at dusk and ended with a landfall after dawn. Errors in the dead-reckoning positions at the ends of traverses were pro-rated over the entire traverses, taking into account

ship speed and offsetting of the course by the wind and sea.

About 2,430 two-minute interval soundings resulted from the survey. These soundings were plotted on U. S. Coast and Geodetic Survey Chart No. 4115 (1951 edition) which also contains 380 soundings in the area of interest. An additional 220 useful soundings were transferred to the plotting chart from a compilation made by Dietz and Menard (1953) for their general map of the Hawaiian region. A few additional old soundings were omitted because they differed markedly from others in the vicinity and were considered erroneous in position. The total of 3,030 soundings served as the basis for the sea floor contour lines of Figure 1.

Corrections for true sound velocity in the water were made using data from the Marshall Islands (Emery, Tracey, and Ladd, 1954) so that the contour lines would indicate actual depths. Contour lines of land topography at the same interval of 1,500 feet (250 fathoms) were added to the chart from the geological map of Hawaii (Stearns and Macdonald, 1946).

RESULTS

The survey shows the presence of three main physiographic units: lower slopes of Hawaii, Hawaiian Deep, and Hawaiian Arch (Figures 1 and 2). Superimposed on these units are five seamounts.

Lower Slope of Hawaii

The lower slope of the island of Hawaii extends a distance of between 10 and 20 miles from shore to a depth of more than 15,000 feet. Instead of being a simple smooth surface the slope has been made somewhat irregular by four kinds of secondary features. One such feature is volcanic cones, two of which are located directly south of Kilauea. These cones will be discussed in the section on seamounts. A second irregularity is that of elongate ridges that extend seaward off both South Cape and Cape Kumukahi. Both ridges are probably the result of vulcanism along rifts

or zones of weakness, extensions of which have been recognized on land (Stearns and Macdonald, 1946, p. 25) and are exemplified by a row of many small craters between Cape Kumukahi and Kilauea Crater. As would be expected of volcanic activity, at least one hill rises above the general level of the outer end of the ridge off Cape Kumukahi. A second hill is shown on U. S. Coast and Geodetic Survey Chart No. 4115 to rise from depths of more than 1,800 feet to within 210 feet of the sea surface (35 fathoms—Existence Doubtful) at a point 5 miles off Cape Kumukahi, but detailed sounding traverses made in this area failed to reveal depths shallower than 1,800 feet. The ridges bear a striking resemblance to similar features of guyots in the Marshall Islands, particularly Sylvania Guyot near Bikini Atoll (Emery, Tracy, and Ladd, 1954).

The third kind of irregularity of the slope is a greater than usual steepness near the shore from south of Kilauea Crater northeastward to near Cape Kumukahi; this steepness is believed to result from the presence of a normal fault that is parallel to shore and is *en echelon* with faults of the Hilina zone on land. The latter is marked by two scarps 1,000 to 1,500 feet high and the scarp on the sea floor is nearly as high. The fourth and last kind of irregularity on the slope is a long broad low ridge that extends eastward from the northernmost parasitic cone. This area is one in which 4,553 earthquakes were detected in a six-week period of 1952 (Macdonald, 1952). Whether this low ridge is of volcanic or structural origin is unknown. The submarine slope appears to be free of a fifth kind of secondary land form, submerged wave-formed terraces, unlike the northeastern coast where Dietz and Menard (1953) reported an extensive terrace at a depth of 1,080 feet.

The steepness of the lower slopes was measured along 11 of the sounding traverses, using for each measurement the gradient of the steepest 6,000-foot depth zone and avoiding as much as possible the influence of sec-

¹ Allan Hancock Foundation contribution No. 156. University of Hawaii Marine Laboratory contribution No. 72. Manuscript received January 12, 1955.

² Department of Geology, University of Southern California.

ondary features. The mean of these values is 11°. In comparison, the maximum, mean, and minimum slopes of 6,000-foot height zones of the subaerial part of Mauna Loa were found to be 11°, 7°, and 3°, respectively. It is evident from these measurements as well as from inspection of the contour lines of Figure 1 and of the profiles of Figure 3 that the submarine slopes of this part of Hawaii are steeper than the subaerial slopes.

Hawaiian Deep and Arch

Beyond the foot of the lower slope of Hawaii is a broad depression that extends along most of the northeastern side of the entire chain and along part of the southwestern side, as mentioned by Stocks (1950) and described more fully by Dietz and Menard (1953). The 18,000-foot contour of Figure 1 shows the deepest part of the Hawaiian Deep; farther southwest the axis of the Deep shallows to 17,200 feet and its course is uncertain west of 155° 10' W. owing to its low relief and the low density of soundings.

South and east of the axis of the Deep the bottom gradually becomes shallower until at the end of each long radial sounding traverse the depths are about 1,000 feet shallower than where the traverse crosses the Hawaiian Deep. This gentle northwestward-facing slope marks the inner side of the Hawaiian Arch, a 200-mile wide bulge that borders the Hawaiian

Deep. The scarp that Dietz, Menard, and Hamilton (1954) found to border the outer edge of the Hawaiian Arch was not reached in this survey. In only a few places do the sounding traverses in the Hawaiian Deep and Arch have local depth variations that exceed 100 feet, the probable limit of accuracy of reading the echo-sounder; accordingly, it is supposed that the bottom is mantled by a thick layer of sediment.

The Hawaiian Deep is attributed by Dietz and Menard (1953) to crustal depression caused by the great load of the volcanic pile that comprises the Hawaiian Islands. The adjacent Hawaiian Arch they believed to be a related elastic bulge.

Seamounts

Five separate topographic highs were investigated during the survey. For convenience all will be called seamounts though three of them approach the lower limit of size and isolation required for application of the term, seamount, by the International Committee on Nomenclature of Ocean Bottom Features (1953).

Four of the seamounts were indicated by single soundings on previous charts (Table 1); however, the survey located new shallowest soundings as much as 4,100 feet shallower than the original ones (Table 1). One small deep seamount (*Hohonu*—"deep as a pit or

TABLE 1
CHARACTERISTICS OF THE FIVE SEAMOUNTS

	Present Survey— Corrected Feet	Previous Chart— Uncorrected Fathoms	Previous Chart— Corrected Feet	Height above Surroundings—Feet	Diameter of Base— Statute Miles	Mean Steepness of Slopes—Degrees
Papa'u.....	2490	450	2910	3000	6	9?
Loihi.....	3222	783	4932	9000	14	17
Wini.....	5346	990	6198	12000	20	16
'Apu'upu'u.....	5832	1600	9924	10500	21	18
Hohonu.....	11478	5500	6	20

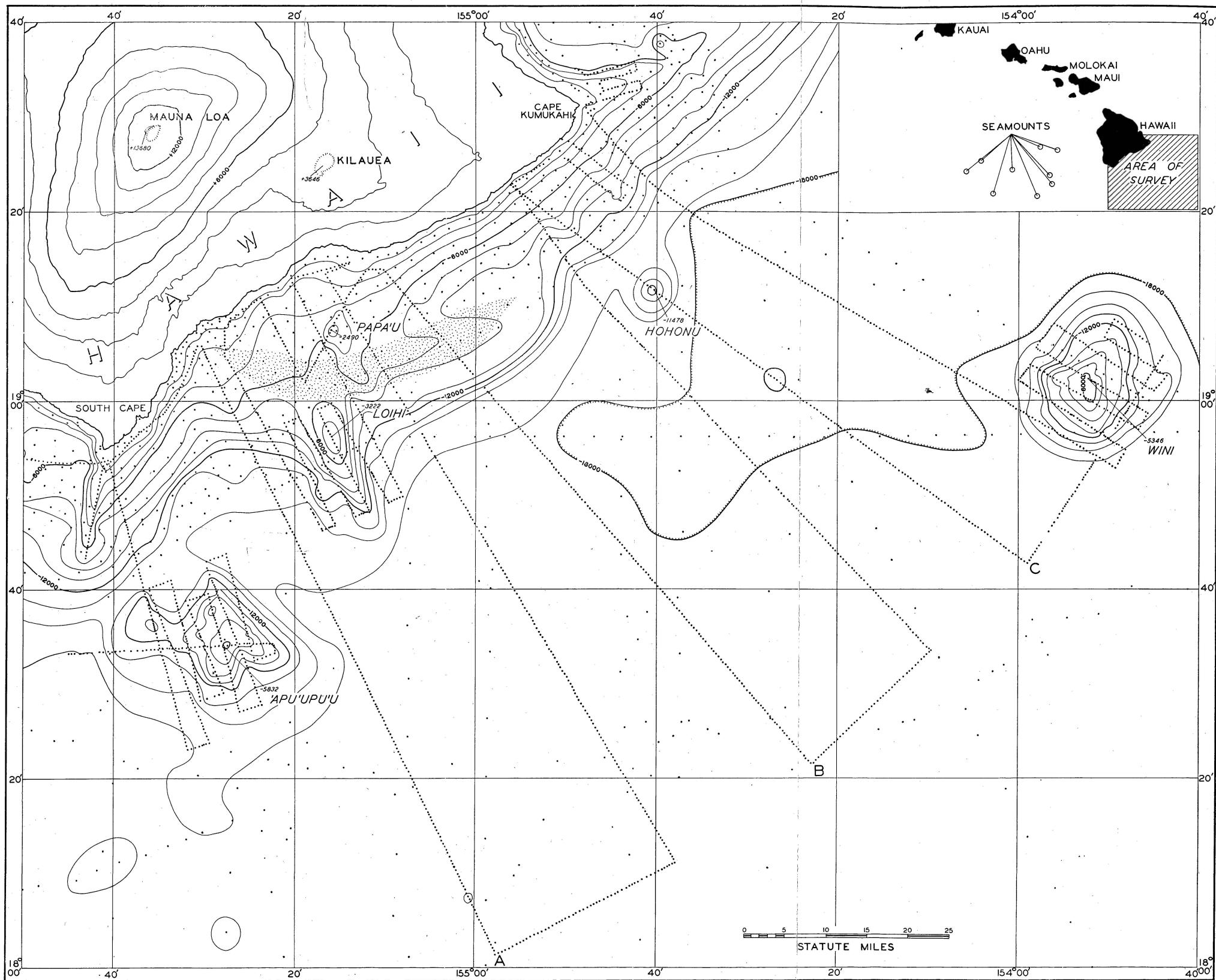


FIG. 1. Map showing topography of southern portion of Hawaii and vicinity. Submarine topography based principally on the survey of June 29 to July 2, 1954, made by the U.S.S. "Patapsco." Contour interval—1,500 feet (250 fathoms); large dots indicate soundings (those closely spaced were taken by the "Patapsco," the widely scattered ones from other sources); finely dotted portion is the area of seismic activity in 1952.

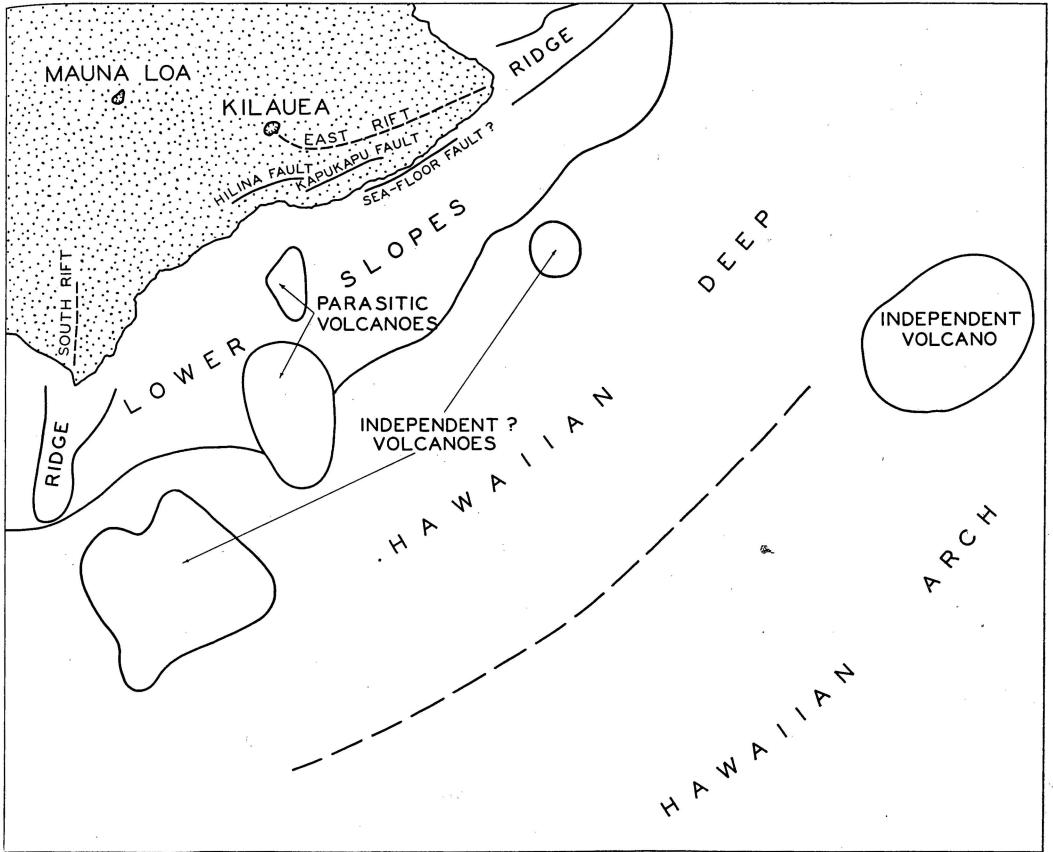


FIG. 2. Physiographic interpretation of Figure 1.

well, the deep sea") was not previously known.

The mean basal diameters of the seamounts range from 6 to 21 miles, so that two of them are intermediate in diameter between the subaerial part of Lanai Island (13 miles) and Kauai Island (27 miles). The seamounts rise 3,000 to 12,000 feet above their surroundings, a relief that is about three times that of the subaerial portions of the various islands in the Hawaiian Chain when expressed as ratio of relief to diameter. The greater relief is, of course, also indicated by steeper slope: a mean of 17° for the seamounts as compared to 11° for the submarine slope of Hawaii and 7° for the subaerial slope of Mauna Loa (Table 1 and Fig. 3). If slope corrections had been applied to the soundings, the submarine

slopes would have been slightly steeper.

One of the seamounts (*Wini*—"coming to a point, sharp pointed") is conical in shape, one (*Loihi*—"to extend, to be long") is elongate, one (*'Apu'upu'u*—"a rough, uneven surface, such as a hillock") is irregular with several peaks, and the other two smaller ones (*Hohonu* and *Papa'u*—"to be shallow, as water") are of uncertain shape, possibly conical. Small irregularities suggestive of craters are present at the tops of three (*Wini*, *'Apu'upu'u*, and *Hohonu*), though it is obvious that the existence of small craters cannot be proven without much more detailed surveys than this one. None of the seamounts has a flat top like guyots but then most of the seamounts are deeper than most guyots and they probably also are younger.

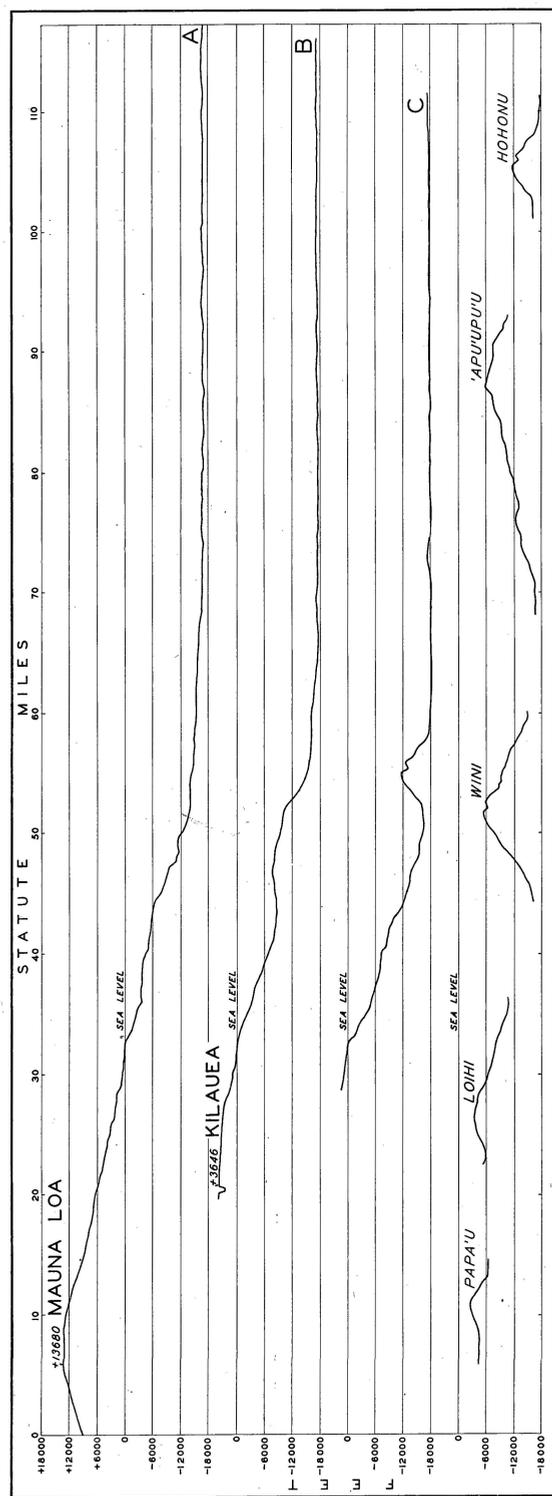


FIG. 3. Profiles of three sounding traverses (A, B, and C) of Figure 1 and of the five seamounts. Vertical exaggeration = 2.0. The slope from the top of Mauna Loa to the bottom of the Hawaiian Deep is the highest continuous slope in the world, approximately 32,000 feet.

None of the seamounts is seismically active within the limitations of the seismograph net on Hawaii. The 1952 belt of active seismicity south of Hawaii appears to pass between the two shallowest seamounts (Papa'u and Loihi) (Fig. 1), but conceivably some of the recorded seismic activity may still be related to them.

In summary the seamounts differ from the known Hawaiian volcanoes in some respects: higher relief (relative to diameter), steeper slopes, and lack of seismic activity. In spite of these differences the general shapes of the features and the geological and geographical environment is such that there is a high degree of probability that the seamounts are of volcanic origin, and correspondingly that the differences which exist may be indications of the nature of the early stages of a volcano forming well below sea level. If this conclusion is correct then the two shallowest seamounts (Papa'u and Loihi) must be considered parasitic (in the sense of topography—not activity) volcanoes on the flank of Kilauea-Mauna Loa, two ('Apu'upu'u and Hohonu) are probably independent volcanoes located at the foot of the slope, and one (Wini) is certainly an independent volcano, being located on the opposite side of the Hawaiian Arch from Hawaii (Fig. 2). If they are volcanoes, their age may be Late Tertiary to Pleistocene in accordance with the youth of the rest of the Hawaiian Chain. Quite probably they are even younger than the rest of the islands as suggested by the general movement of the center of volcanic activity from northwest to southeast (Stearns, 1946). It is impossible to state definitely, however, that the seamounts do constitute such an extension, but such is more likely than that they are unrelated and isolated volcanoes like the ones scattered about the area west of Hawaii (insert map of Fig. 1).

CONCLUSIONS

The relationship of Mauna Loa and Kilauea to the lower slope of Hawaii and its parasitic cones, ridges, fault scarp, and belt

of seismic activity, to the Hawaiian Deep and Arch and to superimposed seamounts is such that it is exceedingly desirable to obtain more information on the submarine topography and bottom materials of the region. This is even more important in a geophysical sense when one considers that the submarine area of the chain far exceeds the subaerial area and that the effort expended on the land area to date is almost infinitely greater than that devoted to study of the submarine area.

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**in: Hana Hou, Hawaiian Airlines, August/September 2003,
v6n4
Making Hula History**

story by Leslie Lang photos by Franco Salmoiraghi

Hence the new chants in *Hanau Ka Moku*, written for the undersea volcano that was discovered by scientists only relatively recently. The Kanaka`oles call the emerging island "Kama`ehu" (The Red Child), though the scientists have named it "Lo`ihi." The Edith Kanaka`ole Foundation has petitioned to officially change the name to Kama`ehu, which Auntie Pua says is more culturally appropriate for an island being born through submarine volcanic activity. "There is a chant that has the line, 'Keiki `ehu kama `ehu a Kanaloa,'" she explains. "'The reddish child, the reddish child of Kanaloa,' who is the deity of the ocean."

<http://www2.hawaii.edu/~hartwell/intro.html>

**Na Mamo: Hawaiian People Today
Introduction**

<http://ulukau.org/elib/cgi-bin/library?e=d-0meleaimoku-000Sec--11en-50-20-frameset-book--1-010escapewin&a=d&d=D0.4.3&toc=0>

LA HANAU O KA MOI'

NOVEMABA 16, M. H. 1886.

HE MELE INOA NO AIKANAKA.

[I HAKUIA E KEAULUMOKU.]

MELE 1.

He Mele Inoa no Aikanaka

E aua ia e Kama, e Kona Moku
Kona moku e Kama e aua ia
O ke Kama, Kama, Kama, i ka huli nuu
O ke Kama, Kama, Kama, i ka Huliau
Hulihia ke au ka Papahonua o ka Moku
Hulihia Papio e ia ilalo ke alo
E Uli- e, Aui - ia, Hulihia i Munaake - le
Hulihia i ka Unukaokoa, a Ku

Ka maka o Ku, ka Aha o Makiilohelohe
Ka Aha nana i hiki o Hulahula
Ua kalakala ia Ua wekewekea
Ua hemo ku la ka piko o ka aina
Ua kala Kaalihi Pohakuku
Me ka upena Aku Oihuaniani
Me ka Ulu Oini, Olaa, O Keawe
O ka Manu Aiakualaahia
Keiki ehu Kama ehu a Kanaloa.

A Name Chant in Honor of Aikanaka

Oh Kama, look, and observe thy lands,
Oh thy lands oh, Kama, oh, retain them
Thou child, child, child of the highest grade
Thou child, child, child of the turning tide,
Overthrown are the foundations of the land
Overthrown, and with its face downward
Oh! thou Uli, look, and observe - overthrown is Manuakele
Overturned on the coral rocks of Ku
For the eyes of Ku, and the cord of Makiilohelohe
There the cords that bound Hulahula
Are loosened and opened
Thus will the centre of the land be moved
For the stone weights of the Bonito nets
And the Bonito net of Ihuaniani
With the stick of Uini, and Laa and Keawe
And the bird that ate the sacred Bonito
The golden-haired child of Kama [Maui] from Kanaloa.

-Keaulumoku; translated by Lili'uokalani

<https://www.edithkanakaolefoundation.org/publications/>
PUKA KAMA'EHU – AN ISLAND IS BORN (CD)

by Hālau o Kekuhi

The island child of Haumea (earth) and Kanaloa (sea) is born. Kama'ehu, the red island child, rises from the deep in the ocean floor.

KA NUPEPA KUOKOA:

Ke Kilohana Pookela no ka Lahui Hawaii.
BUKE I. HONOLULU, NOVEMABA 8, 1862. HELU 50

He mele kahiko.

E ka Nupepa Kuokoa e ; Aloha oe :

Ua kilohi iho nei au maloko ou, a me ka Hoku Pakipika; ua ike au i na mele, na kanikau o na ano a pau. Aole nae au i ike, ua kakauia keia mele e ka poe puni kakau mele. Nolaila, ke nonoi aku nei au ia oe e ka Nupepa Kuokoa, e hookomo iho oe i keia wahi mele ma kou wahi lumi kaawale.

E ke kama, kama—e,
Auaia e kona moku,
E ke kama kama,
Kamu i ka huli nu,
E ke kama kama kama,
Kama i ka huli au,
Hulihia ke au,
Ka papa honua a ka moku,
Hulihia papioia ilalo ke alo,
E ui—e, a ui ia,
Hulihia i Manuakele,
I ka umu kaokoa a Ku,
I ka maka o Ku,
Kaaha mikii lohelohe,
Ka aha nana i hiku,
O hulahula Mea,
Ua kalakala ia,
Ua wekewekea.

Ua hemo aku la ka piko o ka aina,
Ua kala kaalihi pohakuku,
Me ka upena a Ku,
O ihu aniani,
Me kauluna o Nioalani,
O Keawe, o ka manu,
Ai kualaahia.

Keiki ehu kamaehu,

A Kanaloa,

Ua mokuhia kamakama,
A Kalino a ka moku,
Ua kalalia i ka ua lena a Lono,
Na Lono na ka mano nui,
Huki ai moku,
O Kalani o Kauila,
E a i Kahiki,
He ulunaio makawalu,
He ohia ako,
He hakoko i ka ua na ke'lii,
O Namakaeha e ku i ke kaua,
Nana i hoopehee ka honua,
O ka moku,
I haalaia i ke kiu e Loka,
Ka pua ka welohi a Kanaloa,

I ka puulele i ka hana oi a Hina,
E Hina, e une a hano, e una,
Unaia i mama,
I mama, mama,
I mamaia me he pule la.

Hooe io io Nana,
O nana ka hakui,
Io io Nana,
O nana ke au haku,
O kuu Haku ka'u aloha e uwe nei,
Uwe au—e, uwe au,
Uwe au ia oe e Lumialani,
O ka Lumialani o ka haku,
E kaa i ka honua,
O ke kaa i maukuku,
I ka maka o Lono,
O ke kauwahi aloha,
O Halakaina,
O Halakinau oe,
O Keala o Kolole,
No Kololehiwa ia ala,
Nona no ka Lukapewa,
Enaena Puna koele wahine i ka la,
Pua lohela ka hala,
Ko ohia o Makuukee,
I ka papa o Papalauahi,
A Nanawale, ke hoolana no,
Keaiwa, ka e au—e,
I kaeu no a hopuhia loa,
Loa ka inoa ino,
He inoa hue—e,

Ua hakuia keia mele no Namakaeha, kekahi alii i ka wa o Kamehameha I. Me ka mahalo. S. W. K. KEKALOHE. Kipahulu, Maui H., Oka. 1, 1862.

www.soest.hawaii.edu/GG/FACULTY/ROWLAND/GG103/PowerPoints/Loihi.ppt

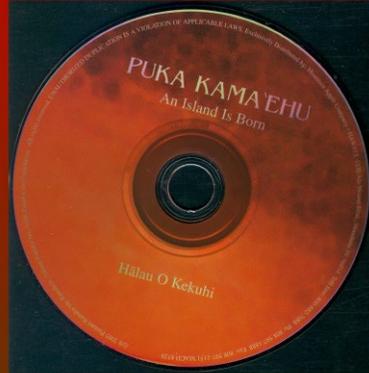
1.

'Keiki 'ehu **kama 'ehu a Kanaloa**,'. she explains. "The reddish child,. the reddish child of Kanaloa,'. who is the deity of the ocean." Hānau Ka Moku, a chant by.

LŌ 'IHI, PARTIAL MELTING, AND ALKALIC & THOLEIITIC BASALTS

Lō 'ihi: Length, height, distance: long. (also lōkihi). *Lō 'ihi ke ala* – the road is long. Ho 'o lō 'ihi – to lengthen. Also, a young undersea volcano 30 km SE of Hawai 'i Island. (From the [Hawaiian Dictionary](#) by Pukui & Elbert)

'Keiki 'ehu kama 'ehu a Kanaloa,' ” she explains. “The reddish child, the reddish child of Kanaloa,” who is the deity of the ocean.” *Hānau Ka Moku*, a chant by Hālau O Kekuhi



Hulihia Ke Au Ka Papa Honua O Ka Moku

Hoala o Hiiaka i ke kaikuaana

Poepoe, 22 May 1908

1. Hulihia ke Au, ka Papa Honua o ka Moku
2. Hulihia papio e ia i lalo ke alo
3. E Uli e! Aui ia!!
4. Maliu ia mai ka ulono a ka pokii
5. Ko pokii holo kia, kau kia manu o Laa
6. Ua laa au i ko leo e ke hoa
7. Kuu hoa, kuu poli, kuu poli waiu hoi
8. E Hulihia i Manuakele
9. Hulihia i ka unukoakoa a Ku
10. Ka maka o Ku, ka Aha o Makiilohelohe
11. Ka Aha nana i hikii paa o Hulahula
12. Ua kalakala ia, ua wekewekea ia
13. Ua hemo akula ka piko o ka aina
14. Ua kala ka alihi pohaku ku
15. Me ka upena aku o Ihuaniani
16. Me ka ulu onini o Laa
17. Laa wale hoi kuu leo ia oe e
18. O ka manu ai aku laahia
19. Keiki ehu, kama ehu a Kanaloa
20. Loa ka imina a ke aloha
21. Ua mokuhia ka makamaka, ka lino
22. Ua kaa ia e ka Ua lena a Lono e
23. Na Lono, na ka Mano Niuhi kiai moku
24. E moku ka po e wehe ka pawa o ke ao
25. E ao hoi
26. E Pele e! Huli ka la
27. E Pele e! Huli ka po
28. E Pele e! Moku ka pawa o ke alaula
29. E Pele e! Hemo ka alihi o ke alaula
30. E Pele e! Hii ke aka i ka malamalama
31. E Pele e! Kaukauli ana oe
32. E Pele e! Uhi, uha mai ana oe
33. E Pele e! E ala mai hoi

Hawai'i Board on Geographic Names
 Selected Place Names on the Island of Hawai'i
 (Bobby Camara)

<i>Status Key: 1 = Not Hawaiian; 2 = Not Reviewed; 3 = More Research Needed; 4 = HBGN Corrected 5 = Already Correct in GNIS; 6 = Name Change</i>							
Stat	FeatID	Name	Class	Corrected	Source	Notes	USGSQuad
3	363916	Puu Lepo	Summit			PNH: not listed; UHP: Pu'ulepo	Hawi
3	361301	Kipuka Maheo	Lava			PNH: not listed	Kahuku Ranch
3	361322	Kipuka Puu Kou	Lava			PNH: not listed	Kahuku Ranch
3	363796	Puu Kanikani	Summit			PNH: not listed; HBGN: combined, Pu'ukanikani	Kahuku Ranch
3	364085	Puu Poo Pueo	Summit			PNH: Po'opueo not listed as a pu'u; HBGN: combined, Pu'upo'opueo	Kahuku Ranch
3	364087	Puu Poopaa	Summit			PNH: not listed; HBGN: combined, Pu'upo'opaa	Kahuku Ranch
3	361897	Lua Kaumakani	Crater			PNH: not listed	Kahuku Ranch
3	361892	Lua Halapepe	Crater			PNH: not listed	Kahuku Ranch
3	361896	Lua Kalupenui	Crater			PNH: not listed	Kahuku Ranch
3	361894	Lua Hokio	Crater			PNH: not listed	Kahuku Ranch
3	361316	Kipuka Pau	Lava			PNH: not listed	Kahuku Ranch
3	361285	Kipuka Kalua o Kelii Waa	Lava			PNH: not listed	Kahuku Ranch
3	362596	Naohulielua	Area			PNH: not listed	Kahuku Ranch
3	361307	Kipuka Mana o Ka Lili	Lava			PNH: not listed	Kahuku Ranch
3	363917	Puu Lepo	Summit			PNH: not listed; UHP: Pu'ulepo	Kahuku Ranch
3	361295	Kipuka Kepunoi	Area			PNH: not listed	Kahuku Ranch
3	361297	Kipuka Koheleha	Area			PNH: not listed	Kahuku Ranch
3	361283	Kipuka Kahuihonu	Area			PNH: not listed	Kahuku Ranch
2	2634508	Ohiawai (historical)	Spring				Kahuku Ranch
3	361303	Kipuka Mali	Lava			PNH: not listed	Kalae
3	365306	Punahaha (historical)	Cape			PNH: not listed	Kalapana OE E
3	360982	Keanahalululu Gulch	Valley			PNH: not listed; UHP: Keanahalululu	Kawaihae
3	360997	Keanapakulua Falls	Falls			PNH: not listed; UHP: Keanapākūlua	Kawaihae
3	361284	Kipukakalawamauna	Lava			PNH: not listed	Keamuku
3	361900	Lua Ioane	Crater			PNH: not listed	Kokoolau

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Stat	FeatID	Name	Class	Corrected	Source	Notes	USGSQuad
3	358478	Ainako	Area			PNH: not listed; HBGN: 'Āinakō, more research needed, 7-29-19.	Pohue Bay
3	359766	Kahilipali Kahaea	Civil			PNH: Kāhilipali listed, Kahaea not listed; not clear why two names are included in the name; more research needed, 7-29-19	Naalehu
3	359972	Kakio Point	Cape			PNH: not listed; AH3/UHP: Kākio, Hawaiian Dictionary (Pukui, Elbert): Kāki'o; more research needed, 7-29-19	Milolii
3	360755	Kaupo Bay	Bay			PNH: Kaupō, Maui, O'ahu, more research needed, 7-29-19	Milolii
3	361647	Lae o Humuhumu	Cape			PNH: not listed for this location (in PNH "Humuhumu: beach, point in Ka'u, black sand beach on south side of Humuhumu Point at the base of a small littoral cone"); more research needed, 7-29-19	Milolii
3	361652	Lae o Kamimi	Cape			PNH: not listed; HBGN: RM 2468, ca. 1909 (George Wright); more research needed, 7-29-19	Milolii

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Stat	FeatID	Name	Class	Corrected	Source	Notes	USGSQuad
3	364025	Puu Ohohia	Summit			PNH: not listed; HBGN: Mr. Camara thought this might be Puahiohio meaning whirlwind; he transcribed Boundary Commission testimony transcription, "then to a hill or crater named Puahiohio where there are whirlwinds;" Ms. Silva found in Ulukau that Pu'u Ohohia was mentioned in a nupepa article describing mahele umikumamaha "in waiohinu, Pu'u Ohohia;" the topo map shows it to be at the boundary between Kaulanamauna and Manukā ahupua'a (the boundary between South Kona District and the Ka'u District); Mr. Cummins found a Registered Map that labels it Puu Hohia, which probably dropped off the "O;" more research needed, 8-26-19	Papa
3	365130	Kipuka Nahuaopala (historical)	Populated Place			PNH: not listed	Naalehu
3	364016	Puu o Kaau	Summit			PNH: not listed; HBGN: combined, Pu'uokaau	Naalehu
3	361674	Lae Pohue	Cape			PNH: not listed	Naalehu
3	360987	Keanakaluapuaa	Bay			PNH: not listed	Naalehu
3	363505	Puhiopaheehee	Cape			PNH: not listed	Naalehu

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Stat	FeatID	Name	Class	Corrected	Source	Notes	USGSQuad
3	364183	Puuo Point	Cape			PNH: not listed; HBGN: combined, Pu'uo	Naalehu
2	2634486	Napumaia (historical)	Populated Place				Naalehu
3	363550	Punahaha	Cape			PNH: not listed	Pahala
3	364735	Wailohi	Area			PNH: not listed	Papa
3	364223	S Mowai	Area			PNH: not listed	Papa
3	362746	Ohia Mill	Locale			PNH: not listed	Papa
3	362765	'Ōkole Gulch	Valley			PNH: not listed	Papaalooa
3	361672	Lae o Puni	Cape			PNH: not listed	Papaikou
3	361102	Keliuli Bay	Bay			PNH: not listed	Pohue Bay
3	360760	Kaupuaa	Bay			PNH: not listed	Pohue Bay
3	361288	Kipuka Kanohina	Lava			PNH: not listed	Pohue Bay
3	361287	Kipuka Kamiloaina	Lava			PNH: not listed	Pohue Bay
3	361321	Kipuka Pueo	Lava			PNH: not listed	Pohue Bay
3	363623	Puu o Kamaoa	Summit			PNH: not listed; HBGN: combined, Pu'ukamaoa	Pohue Bay
3	361534	Kukuihae	Area			PNH: not listed; HBGN: found on Ulukau as Kukuiha'a from BC:85	Pohue Bay
3	363703	Puu Hilea	Summit			PNH: Hilea not listed as a pu'u; HBGN: combined, Pu'uhilea	Pohue Bay
3	361323	Kipuka Waiahuli	Lava			PNH: not listed	Pohue Bay
3	361003	Keanapukalua	Cape			PNH: not listed	Puu Hinai
3	361670	Lae o Panipou	Cape			PNH: not listed; UHP: Laeopanipou, uncertain p & m	Puu Hinai
3	361669	Lae o Ili	Cape			PNH: not listed	Puu Hinai
3	361306	Kipuka Mamani	Area			PNH: not listed	Puulehua
3	361302	Kīpuka Major	Area			PNH: not listed	Puulehua
3	361314	Kipuka Paluli	Area			PNH: not listed	Puulehua
3	362751	'Ōhi'anui	Area			PNH: not listed	Puulehua
3	360878	Ke A Pele o Iki	Lava			PNH: not listed	Puuokeyo
3	361317	Kipuka Peehi	Lava			PNH: not listed	Puuokeyo

Hawai'i Board on Geographic Names
 Selected Place Names on the Island of Hawai'i
 (Bobby Camara)

Status Key: 1 = Not Hawaiian; 2 = Not Reviewed; 3 = More Research Needed; 4 = HBGN Corrected 5 = Already Correct in GNIS; 6 = Name Change

Stat	FeatID	Name	Class	Corrected	Source	Notes	USGSQuad
3	361318	Kipuka Pele o Iki	Lava			PNH: not listed	Puuokeokeo
3	360545	Kapoalaala	Summit			PNH: not listed	Puuokeokeo
3	362505	Na Manua Haalou	Swamp			PNH: not listed	Puuokeokeo
3	365914	Keanahalululu	Unknown			PNH: not listed; UHP: Keanahalululu	Unknown
3	365786	Keanakaluapauaa	Unknown			PNH: not listed	Unknown
3	365915	Keanalele	Unknown			PNH: not listed	Unknown
3	365916	Keananulohaha Point (historical)	Summit			PNH: not listed	Unknown
3	365918	Keanapukalua	Unknown			PNH: not listed	Unknown
3	1930522	Kīpuka ʻĀinahou Nēnē Sanctuary	Park			PNH: not listed	Unknown
3	1853082	Okole Stream (historical)	Stream			PNH: not listed	Unknown
3	364022	Puu Ohau	Summit			PNH: not listed; UHP: Pu'uohau	Unknown