#### HAWAI'I BOARD ON GEOGRAPHIC NAMES (HBGN)

Notice of Meeting and Agenda
235 S. Beretania Street
6th floor Library
Honolulu, HI 96813

Tuesday, August 6, 2024 2:00 p.m.

As authorized under Act 220, Session Laws of Hawai'i 2021, this meeting will be held with Board Members, Staff, and Agencies participating in-person at the above location or via Zoom online meeting venue.

## **Zoom meeting information:**

URL: <a href="https://bit.ly/hbgn\_2024">https://bit.ly/hbgn\_2024</a> or dial: (253) 205 0468 [audio only]

Meeting ID: 810 5134 5336 Passcode: 542392

#### <u>AGENDA</u>

- 1. Call to Order
- 2. Review and approval of meeting minutes for July 2, 2024

  The Board will review/amend the minutes from the previous meeting and will vote on whether or not to approve them at this time. [Action item]
- 3. Public comments.

Participants may provide comments about issues not on the agenda for possible inclusion on a future agenda. [Not an action item]

- 4. Announcements.
  - Participants may share information not requiring Board discussion, action, or decision making. [Not an action item]
- 5. Discussion about using Hawaiian terminology instead of English descriptors in feature names and suggesting Hawaiian terminology in the GNIS Feature Class descriptions.

  Board members will discuss the possibility of standardizing naming conventions using Hawaiian terminology to replace English descriptors such as "Gulch," "Crater," and "Stream." The Board will also review the GNIS Feature Class descriptions to suggest corrections in the use of Hawaiian terminology and to suggest additional Hawaiian terminology that might be appropriate. [Action item]
- 6. Discussion and decision on establishing a Permitted Interaction Group to research the name of the Island of Hawai'i.
  - Board members will discuss the option of establishing a Permitted Interaction Group (PIG) to research the name of the Island of Hawai'i and to facilitate engaging with community members and stakeholders. The discussion will include identifying members of the PIG, setting the scope of the investigation, and setting the scope of each member's authority. [Action item]

- 7. Discussion and decision on selected feature names on O'ahu.

  Board members are reviewing and researching feature names from its review list. Board members will discuss the results of their research and may make naming decisions. [Action item]
- 8. Adjourn

## **Meeting Materials:**

Meeting materials will be available in advance of the meeting on HBGN's website (https://planning.hawaii.gov/gis/hbgn/hbgn-meeting-materials).

## **Zoom meeting information:**

To participate via the Zoom link provided, you will need a computer or mobile device with internet access, video camera (recommended), and microphone. You will be muted during the meeting unless you are testifying or actively participating in a discussion. You may also access the Zoom meeting by phone only by using the dial-in phone number, meeting ID, and meeting passcode information provided at the top of this agenda. Further instructions for how to use Zoom are available at: <a href="https://planning.hawaii.gov/ghgstf/agendas-and-minutes">https://planning.hawaii.gov/ghgstf/agendas-and-minutes</a>.

If connection is lost, the meeting may reconvene when either audiovisual communication or audio-only communication is established within thirty minutes. The public may access the reconvened meeting by clicking the link again.

If it is not possible to reconvene the meeting within 30 minutes after an interruption, then check HBGN's website (<a href="https://planning.hawaii.gov/gis/hbgn">https://planning.hawaii.gov/gis/hbgn</a>) for information as to whether the meeting will be continued to an alternative date and time, or the meeting may be terminated.

#### Information about submitting and providing testimony:

Written testimony may be submitted on any agenda item:

by email: arthur.j.buto@hawaii.gov or

by postal mail: Office of Planning and Sustainable Development

ATTN: Hawai'i Board on Geographic Names

P.O. Box 2359

Honolulu, HI 96804-2359

Written testimony should include the word "testimony" with the agenda item number and description in the Subject line, and should be received no later than **Wednesday**, **July 31**, **2024**, **4:30 p.m.**, in order to be included in the meeting packet. Testimony received after that time will be distributed at the meeting and posted on the website but may not be included in the meeting packet.

Members of the public may also provide oral testimony and participate in discussions for any agenda item during the meeting. If attending in person, please indicate that you wish to speak by raising your hand. When recognized by the Chairperson, you may present your testimony. If attending virtually, please indicate that you wish to speak by using the raise hand function in Zoom, or if calling in by telephone, entering \* and 9 on your phone keypad. When recognized by the Chairperson, you will be unmuted. If calling in by phone, you can unmute and mute yourself by pressing \* and 6 on your keypad. When testifying, you will be asked to identify yourself and the organization, if any, that you represent.

## Information about attending the meeting in person:

Persons may attend the meeting in person at: Leiopapa A Kamehameha, 235 S. Beretania Street, 6<sup>th</sup> Floor Conference Room, Honolulu, HI 96813. Visitors will be asked to:

- Present a government issued picture ID at the security desk in the lobby;
- Wear a mask which covers both the nose and mouth;
- Maintain social distance of minimum 6 feet apart from others whenever possible.

## **Information about auxiliary aids:**

If you need an auxiliary aid/service or other accommodation due to a disability, contact Arthur Buto at (808) 587-2894 or by email at *arthur.j.buto@hawaii.gov* as soon as possible. Requests made as early as possible will allow adequate time to fulfill your request.

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 2, 2024 TIME: 2:00 p.m.

PLACE: Leiopapa A Kamehameha Building

Office of Planning and Sustainable Development

235 S. Beretania Street, 6<sup>th</sup> Floor Library

Honolulu, Hawai'i 96813

[0:00:00] AGENDA ITEM 1: Call to Order

Mr. Cummins called the meeting to order at 2:02 p.m.

The following were in attendance:

**MEMBERS:** Meyer Cummins (Land Survey Division) [remote]

Arthur Buto for Mary Alice Evans (Office of Planning and Sustainable

Development) [in-person]

Kapā Oliveira (University of Hawai'i at Mānoa) [remote]

Lilliane Makaila (Department of Hawaiian Home Lands) [remote]

Hailama Farden (Office of Hawaiian Affairs) [remote] joined meeting at

2:05pm

**ABSENT:** Marques Marzan (Bishop Museum)

Holly McEldowney (Department of Land and Natural Resources)

GUESTS: Jenny Runyon (Staff, US BGN, USGS) [remote]

Dr. Shellie Zahniser (Executive Secretary, Domestic Names Committee

(DNC), US BGN, USGS) [in-person]

Keith Gutierrez (Office of Hawaiian Affairs) [remote]

David [remote]

Bobby Camara [remote] joined meeting at 2:35pm

[0:01:01]

**AGENDA ITEM 4:** Announcements

Mr. Gutierrez announced that the new CEO of OHA, Stacy Ferreira named Hailama Farden as the OHA representative to the Board. Mr. Gutierrez expressed his gratitude and appreciation to Board members for his participation these past two years.

[0:02:46]

**AGENDA ITEM 2:** Review of Meeting Minutes for June 4, 2024

[0:02:55]

**MOTION:** Ms. Oliveira moved to accept the minutes of June 4, 2024. Ms. Makaila seconded the motion.

[0:03:06]

The members present voted unanimously to approve the meeting minutes of June 4, 2024.

[0:03:16]

#### AGENDA ITEM 3: Public Comments

Mr. Hailama Farden introduced himself. He is the Senior Director of Cultural Affairs at OHA, retired from Kamehameha Schools after 31 years.

[0:05:15]

## AGENDA ITEM 5: Discussion about the possibility of using Hawaiian terminology instead of English descriptors in feature names.

Ms. Makaila provided a listing of her suggested changes to the US BGN Feature Class descriptions. This is not a comprehensive review.

She could not find a source or more information about *kepula* listed under the "Lava" feature class; it may be a misspelling, possibly for  $k\bar{\imath}puka$ . She recommends asking that it be removed.

She also highlighted some common and well-known terms that might be useful. Awāwa is listed under both "Stream" and "Valley." In the discussion last month, she noted that for a stream, kahawai refers to the water flow and awāwa refers to the carved land. Awāwa is usually used when the stream is dry and kahawai is used when there is water. Mr. Cummins related that in his work with historical documents he has seen awāwa used that the time of year may be a factor. He was taught that awāwa is used to refer to the holder of the water, the gulch and the kahawai is the stream itself.

Mr. Farden added that his grand uncle was a cadastral surveyor starting in the 1920s and maintained a handwritten book that included Hawaiian terms for features and measurements and their meanings in English. He understands the usefulness of including Hawaiian terms in these Feature Class descriptions.

Ms. Oliveira agreed that it is useful to include appropriate Hawaiian terms to these descriptions. She noted that cultural and political issues may be associated with some features like kahawai where in a historical context it was normal for water to be flowing, but in a contemporary context that's not the case.

[0:18:37]

Mr. Farden related his experience on a trip with his auntie returning to Olowalu. She talked about her experiences growing up and was referring to the kahawai, even though at that part

of the trip it was dry. She had an emotional response when they returned later that same day and the water was flowing.

Ms. Makaila agrees with Ms. Oliveira's discomfort with a global "search and replace" of English descriptors with Hawaiian terms and doesn't understand the purpose of doing that. She is supportive of adding terms to the Feature Class descriptions from a pae 'āina perspective.

Mr. Cummins supports continuing the discussion at future meetings before making recommendations to the US BGN.

[0:23:50]

## AGENDA ITEM 6: Discussion and decision on establishing a Permitted Interaction Group (PIG) to research the name of the Island of Hawai'i.

Ms. Oliveira asked that the Board review the name of the island because the names of the other islands are more straightforward, and that context could help differentiate between "Hawai'i" referring to the island versus the State. If the Board is in agreement about the name, i.e., "Hawai'i," then there may not be a need for a PIG. If other options are under consideration, then establishing a PIG makes sense.

Mr. Buto explained that the suggestion of a PIG was to respond to the requests from the public that the Board engage with the community to collect input and feedback before making a naming decision. A PIG would make community engagement easier and more flexible than addressing the name in a monthly Board agenda item.

Ms. Makaila commented that many people who attended the earlier Board meeting were uncomfortable that this is an O'ahu-centric board making this naming decision. A PIG would allow the Board to hear from the community at a time and place that is more convenient for people who want to provide input. She feels that collecting public input through a PIG or through other means would honor the time taken by the people who attended and testified at the Board meeting and also hold the Board accountable to its consultation commitment.

Mr. Cummins felt that the Board should provide more context and background about why this is on the agenda and agreed that Board should provide an opportunity for the public to provide input. If the name is changed to "Hawai'i" he expressed a concern that in documents, it should remain clear when it refers to the island and when it refers to the State. One of the reasons for the Board is to identify feature names unambiguously.

Mr. Camara commented that he feels that the purpose of place naming is to recapture the original 'Ōlelo Hawai'i names and that using lower case English descriptors is acceptable and would help clarify that they are not part of the name itself.

He wanted to add "Lua Poho," to the list of feature names in Hawai'i Volcanoes National Park; he saw it on an 1872 map by Lyman. It is a pit crater like many of the craters in the park as opposed to an eruptive vent.

Mr. Cummins noted that the Board will continue the review of the Feature Class descriptions.

At the last meeting the Board started the conversation about establishing a Permitted Interaction Group (PIG), the pros cons, and the potential cost (to visit Island of Hawai'i). Because a full Board wasn't present, the discussions was tabled.

Mr. Cummins asked if any of the members present today would be willing to serve on the PIG. Ms. Makaila said that she would be happy to participate.

Mr. Cummins thought that Ms. Makaila and Ms. Oliveira would be good candidates, because of their knowledge of 'Ōlelo Hawai'i and their interest in the topic. However, neither was present at the last meeting; Ms. Oliveira is not present today.

Ms. Oliveira's 'Ōlelo Hawai'i expertise extends to both language and geography. Mr. Cummins also volunteered to provide an additional mapping expertise from a surveyor's perspective.

[0:42:10]

**MOTION:** Mr. Buto moved that the Board table this discussion until the next meeting where there are at least five Board members present. Ms. Makaila seconded the motion.

[0:42:30]

The members present voted unanimously to table this discussion until the next meeting where there are at least five Board members present.

[0:42:38]

AGENDA ITEM 7: Discussion and decision on selected feature names on O'ahu.

[0:48:12]

[358537] **Alapena Pool.** 

Mr. Cummins looked at Grant 3691 abutting the pool area, but it doesn't identify the pool by name. Ms. Makaila did not find any additional information about the name.

[0:44:35]

**MOTION:** Mr. Cummins moved that the Board change the Status Code from "3" to "5," already correct in the GNIS. Ms. Oliveira seconded the motion.

[0:44:50]

The members present voted unanimously to change the Status Code from "3" to "5."

[0:55:10]

[358539] Alau Gulch

[358546] Alei Pali

Mr. Cummins did not find any additional information about the features in the field book associated with Registered Map 1784.

Mr. Camara suggested removing the descriptors from the names if they were added in the GNIS by the USGS. Ms. Makaila has concerns about removing the descriptors without seeing another reference that more clearly shows these features. Mr. Cummins noted that on RM 1784 there are gulches labeled as such, e.g., "Manini Gulch," whereas the area labeled "Alau" on the map does not have "Gulch" as part of the label. It's possible that what are labeled on the map as "Alau" and "Alei" refer to trig stations and not the geographical features.

Mr. Camara referred to the Papakilo Database, there are several references to "Alei Pali."

Ms. Makaila prefers to leave them as is, until another source is found that identifies them more clearly as a gulch and a pali. She searched papakilodatabase.com and nupepa.org but didn't find any additional documentation for the features.

[1:02:47]

**MOTION:** Ms. Makaila moved that the Board change the Status Code from "3" to "7," exhausted available references and research resources. Ms. Oliveira seconded the motion.

[1:03:05]

The members present voted unanimously to change the Status Code from "3" to "7."

[1:04:20]

[363581] **Punchbowl**. Mr. Camara talked to Puakea Nogelmeier who sent him a transcript of an interview talking about "Pūowaina." Mr. Nogelmeier did extensive research on the name and wrote a paper that's in UH's Hamilton Library. It will be sent out to the Board when it's been scanned.

On another topic, Mr. Camara has been doing some research into the controversy circa 2000 about Forbes Cave. He would like the Board's perspective on geographic features that apparently don't have a traditional name, like Forbes Cave.

Mr. Buto recalled that in earlier discussions with respect to naming new features, the consensus was that it is not the Board's kuleana to come up with names, but to listen to

input from stakeholders, as it did for Ahu'ailā'au. And the names and locations of caves are not published in the GNIS, which would limit the general awareness of the name.

Mr. Farden asked if there are records of when and how place names were changed in more recent history, i.e., earlier in the 20<sup>th</sup> Century, e.g., "Waipilopilo" is now "Waiakamilo."

Mr. Nogelmeier worked as an apprentice under Theodore Kelsey who talked to and corresponded with people. Some of these letters are included in the archives. "Pūowaina" is included in the collection; one includes "Pūo Ina," "Pu'uowaina," and "Pūowaina."

Mr. Kelsey also recruited "informants" who would answer his questions. One man provided translations of the names of the islands. But sometimes the meanings of place names are lost to antiquity and may never be known. He cautioned that in those cases the Board should not try to invent or speculate the meaning without evidence.

Also included in the collection is a letter from John Wise in which he reproaches Mr. Kelsey by touting his own unique endowments.

Ms. Makaila wouldn't be surprised if there is an inoa Hawai'i for "Forbes Cave," but that those who know are content to let it be known to the public by its contemporary English name. In her work she tries to find lineal or cultural descendants of an ahupua'a and work through them. She was doing research related to the Kohala area and the listened to kani 'āina recordings and they didn't discuss that particular cave.

She is very interested in discussing restoring traditional names to "Punchbowl" and "Diamond Head" and is interested in reading Puakea's research about "Pūowaina." In addition, "Le'ahi" and "Lae'ahi" She also let Mr. Farden know that the GNIS does accommodate Variant Names, so they would be included in the database record.

Mr. Cummins noted that if a name was proposed for "Forbes Cave," the Board would consider it, but at the same time it would have the undesirable effect of drawing attention to the cave.

Mr. Camara talked about when he was the cave resources specialist at Hawai'i Volcanoes National Park in the late 1990s. It was apparent that lava tubes were not named, just the entrances and the openings in the ceilings. These were referenced in Boundary Commission testimony.

Mr. Camara noted that the next meeting of the kūpuna group will take place on Friday the 12<sup>th</sup>. They are open to submitting partial lists of name changes/corrections as they make decisions.

[1:30:00]

AGENDA ITEM 8: Adjourn

[1:30:10]

**MOTION:** Mr. Cummins moved to adjourn the meeting. Mr. Buto seconded the motion.

[1:30:25]

The members present voted unanimously to adjourn the meeting.

Mr. Cummins adjourned the meeting at 3:32 pm.

Stat	Feat ID	Feature Name	Feature Class	Corrected Name	Source	Notes	USGS Quad Name
5	358537	Alapena Pool	Lake	Alapena Pool	HBGN	PNH: not listed; HBGN: more research needed, 05-07-2024 HBGN: found on File Plan 184 (ca. 1917); will check State Parks maps and Grant 3691 abutting Alapena Pool, 06- 04-2024; HBGN: no additional information found, 07-02-2024	Honolulu
7	358539	Alau Gulch	Valley	Alau Gulch	HBGN	HBGN: "Alau" and "Alei" found on Registered Map 1784; will check Field Book associated with map for information about naming conventions, 06-04-2024; HBGN: no additional information found; awaiting additional evidence, 07-02-2024	Kaena
7	358546	Alei Pali	Cliff	Alei Pali	HBGN	HBGN: "Alau" and "Alei" found on Registered Map 1784; will check Field Book associated with map for information about naming conventions, 06-04-2024 HBGN: no additional information found; awaiting additional evidence,	Kaena

#### **Feature Classes**

This list shows all feature classes catalogued in the GNIS and their definitions and provides examples of generic names associated with the feature class.

#### Arch

Natural arch-like opening in a rock mass (bridge, natural bridge, sea arch).

#### Area

Any one of several areally extensive natural features not included in other categories (badlands, barren, delta, fan, garden).

### Arroyo

Colloquial usage in southwestern United States. The valley of an ephemeral stream with a flat floor and steep banks or the ephemeral stream flowing through a valley with a flat floor and steep banks, either hydrographic or hypsographic ('āwa'a, draw, wash, gully).

#### Bar

Natural accumulation of sand, gravel, or alluvium forming an underwater or exposed embankment (ledge, reef, sandbar, shoal, spit).

#### Basin

Natural depression or relatively low area enclosed by higher land (amphitheater, bolson, cirque, depression, hole, lua, pit, sink).

#### Bay

Indentation of a coastline or shoreline enclosing a part of a body of water; a body of water partly surrounded by land (arm, bahía, bight, cove, estuary, gulf, hono, inlet, kūʻono, sound).

#### Beach

The sloping shore along a body of water that is washed by waves or tides and is usually covered by sand or gravel (coast, kahakai, kapa kai, shore, strand).

#### Bench

Area of level to gently sloping land on the flank of an elevation such as a hill, ridge, or mountain where the slope of the land rises on one side and descends on the opposite side (first bottom, flood-plain step, level, terrace, tread).

#### Bend

Curve in the course of a stream or the land within the curve; A curve in a linear body of water (bottom, loop, meander).

#### Canal

Waterway, primarily manmade, used by watercraft or for drainage, irrigation, mining, or waterpower ('auwai, ditch, lateral, sluice).

#### Cape

Projection of land extending into a body of water (lae, neck, peninsula, point).

#### Census

A statistical area delineated locally specifically for the tabulation of Census Bureau data (census designated place, census county division, unorganized territory, various types of American Indian/Alaska Native statistical areas). Distinct from Civil and Populated Place.

#### Channel

Linear deep part of a body of water through which the main volume of water flows and is frequently used as a route for watercraft (passage, reach, strait, thalweg, thoroughfare, throughfare). Not a Stream or Valley.

#### Civil

A political division formed for administrative purposes (borough, county, incorporated place, municipio, parish, town, township). Distinct from Census and Populated Place.

#### Cliff

Very steep or vertical slope on one side (bluff, crag, escarpment, head, headland, nose, pali, palisades, precipice, promontory, rim, rimrock, scarp).

#### Crater

Circular-shaped depression at the summit of a volcanic cone or one on the surface of the land caused by the impact of a meteorite; a manmade depression caused by an explosion (bowl, caldera, lua, maar).

#### Crossing

A place at which a river or stream may be crossed (landing, ferry, ford).

## Falls

Perpendicular or very steep fall of water in the course of a stream (cascade, cataract, wailele, waterfall).

### Flat

Relative level area within a region of greater relief (clearing, glade, pan, park, playa lake, salina, upland, papa).

## Gap

Low point or opening between hills or mountains or in a ridge or mountain range (col, notch, pass, saddle, water gap, wind gap).

#### Glacier

Body or stream of ice moving outward and downslope from an area of accumulation; an area of relatively permanent snow or ice on the top or side of a mountain or mountainous area (icefield, ice patch, snow patch).

#### Gut

Relatively small coastal waterway connecting larger bodies of water or other waterways (creek, inlet, slough).

#### Island

Area of dry or relatively dry land surrounded by water or low wetland (archipelago, atoll, cay, hammock, hummock, isla, isle, key, moku, mokupuni, rock).

#### **Isthmus**

Narrow section of land in a body of water connecting two larger land areas.

#### Lake

Natural body of inland water (backwater, lac, lagoon, laguna, loko, oxbow, pond, pool, resaca, tank, tarn, waterhole).

#### Lava

Formations resulting from the consolidation of molten rock on the surface of the Earth (kepula, lava flow, kīpuka, māwae, traps).

#### Levee

Natural or manmade embankment flanking a stream (bank, berm, kuāuna).

#### Military

Place or facility used for various aspects of or relating to military activity. Pillar Vertical, standing, often spire-shaped, natural rock formation (chimney, hoodoo, monument, pinnacle, pōhaku, rock tower).

#### Plain

A region of general uniform slope, comparatively level and of considerable extent; can refer to the flat area of a large mesa (desert, grassland, highland, kula, plateau, savanna).

#### Populated Place

Place or area with clustered or scattered buildings and a permanent human population (city, settlement, town, village). A populated place is usually not incorporated and by definition has no legal boundaries. However, a populated place may have a corresponding "civil" record, the legal boundaries of which may or may not coincide with the perceived populated place. Distinct from Census and Civil classes.

#### Range

A single mass of hills or mountains; a complex, interconnected series of mountain ranges having a well-defined longitudinal trend (cordillera, mountain belt, sierra).

#### Rapids

Fast-flowing section of a stream with turbulent flow, often shallow and with exposed rock or boulders, where discharge is mostly influenced by velocity rather than width and depth (dalles, riffle, ripple).

#### Reservoir

Artificially impounded body of water (kūmano, lake, luawai, tank).

#### Ridge

Elevation with a narrow, elongated crest that can be part of a hill or mountain (arête, crest, chenier, cuesta, divide, esker, hogback, mogote, lae, ridge, spur).

#### Sea

Large body of salt water (gulf, kai, moana, ocean).

#### Slope

A gently inclined part of the Earth's surface (grade, pitch).

#### Spring

Place where underground water flows naturally to the surface of the Earth (puna, seep).

### Stream

Linear body of water flowing on the Earth's surface (anabranch, awāwa, bayou, branch, brook, creek, distributary, fork, kahawai, kill, pup, rio, river, run, slough).

#### Summit

Prominent elevation rising above the surrounding level of the Earth's surface; does not include pillars, ridges, or ranges; can occur as a single isolated mass or in a group (ahu, ballon, berg, bald, butte, cerro, colina, cone, cumbre, dome, head, hill, horn, knob, knoll, mauna, mesa, mesita, mound, mount, mountain, nu'u, peak, pu'u, rock, sugarloaf, table, volcano).

## Swamp

Poorly drained wetland, fresh or saltwater, wooded or grassy, possibly covered with open water (bog, cienega, everglades, fen, marais, marsh, pocosin, slough).

## Valley

Linear depression in the Earth's surface that generally slopes from one end to the other (awāwa, barranca, canyon, chasm, cirque, cove, coulee, draw, fjord, glen, gorge, gulch, gulf, gully, hollow, ravine).

#### Woods

Small area covered with a dense growth of trees; does not include an area of trees under the administration of a political agency.

## Quick Review: Who Board Members Can Talk To and When (Part 3) (Revised December 2022)

OIP often is asked whether board members can talk to one another in various situations when not in a meeting. To help board members understand what they can talk about when they are not in a meeting, OIP put together a three-part Quick Review. The entire series can be found online on OIP's Sunshine Law training webpage at oip.hawaii.gov.

Boards subject to the Sunshine Law, Part I of Chapter 92, Hawaii Revised Statutes (HRS), are generally required to conduct all business in open meetings that have been properly noticed to allow for public participation. This Quick Review discusses an exception to the open meeting requirement for "permitted interaction groups" or "PIGs," as set forth in section 92-2.5(b), HRS. While other types of permitted interactions were previously discussed in Part 2 of this Quick Review series, this article explains how members of a board may form a PIG to investigate or to negotiate a matter.

## PIGs Established to Investigate

Two or more members of a board, but less than the number of members which would constitute a quorum, may be assigned to investigate a matter relating to the official business of their board.

In order for a board to take action on a matter investigated by a PIG, **three separate board meetings must occur** in the order described below. At the **FIRST** meeting of the full board, the investigative PIG is formed and the scope of the investigation and the scope of each member's authority are defined. No new members or issues can be added to the PIG after the first board meeting. The PIG may then conduct its investigation outside of open meetings, which may take months to complete.

At a **SECOND** meeting of the full board, the findings and recommendations of the PIG are presented to the board, **but the board cannot discuss or act on the report at this meeting.** 

A PIG may present its findings to the full board in an executive session if the
reason for entering into the executive meeting is one of those set forth in
section 92-5(a), HRS, or other law. For example, if a PIG was created to
investigate whether to take certain disciplinary action against an employee, it
may present its findings to the full board in accordance with section
92-5(a)(2), HRS, which allows boards to enter executive meetings to consider
the discipline of an employee. In such a situation, OIP generally recommends

that the PIG also present a "sanitized" report during the public session that omits the confidential information but informs the public of the general nature of the PIG's findings and recommendations, so the public is at least generally informed of the PIG's work and has something upon which to base testimony at the subsequent meeting where the board will discuss and perhaps act on the report.

After the PIG makes its report to the board at the second meeting, the PIG is automatically dissolved and should not continue working. The Sunshine Law does not allow a PIG to make more than one report or to continue working on its assignment after its report, so a PIG should not be providing "updates" on its work or more than one report. See OIP Op. Ltr. No. F23-01 on OIP's Opinions page for an indepth discussion on investigative PIGs.

The board cannot discuss, deliberate, or make any decisions regarding the PIG's report until a THIRD meeting held separately and after the meeting at which the findings and recommendations of the investigation were presented by the PIG.

Waiting until a subsequent board meeting to discuss and act on the PIG's report gives the public the opportunity to present informed testimony at the meeting where the board will discuss and act on the report.

## Some Practical Considerations for Investigative PIGs

- A PIG is fundamentally a permitted interaction with detailed reporting requirements, not a special type of committee.
- Because they are a permitted interaction rather than a type of committee,
   PIGs are not subject to the Sunshine Law's requirements for giving notice,
   holding open meetings, or keeping minutes.
- PIG members may communicate by interactive technology (Skype, teleconference, etc.), and by email, telephone, etc., on matters within the scope of the PIG's authority without violating the Sunshine Law.
- Although a PIG is not required to hold public meetings, it can choose to do so
  if it wishes.
- PIGs may solicit input from the public as part of an investigation without the need of filing a meeting agenda in accordance with the Sunshine Law.

- A PIG may include among its members people who are not members of the board that created the PIG. A PIG may also consult with others (<u>i.e.</u>, staff, members of the public, individuals with expertise in a field, stakeholders, etc.) in furtherance of its investigation, but should NOT consult with other members of its parent board.
- Members of a board who are not part of the PIG may NOT attend PIG meetings or be included in PIG communications.
- Before the PIG reports to the board, PIG members should not discuss the status of their investigation with other board members who are not part of the PIG.
- A standing committee of a board may create a PIG, and such PIGs must follow all the requirements of section 92-2.5(b), HRS, including reporting back to the committee that created them.
- Sometimes, it may be better for a board to establish a temporary committee instead of a PIG, or to delegate authority to one member to perform a task and report back to the board. <u>See</u> OIP Op. Ltr. No. F23-01 at 15-16 for more information.
- A PIG may continue its work after the loss of a PIG member. For example, if a PIG's member's term on the board ends, that member also ceases to be a PIG member, but the PIG can continue working with the remaining original members. The board should not substitute another board member into that vacant PIG position. The PIG's membership was previously established at the initial meeting that created the PIG and new members cannot be added. The PIG can continue without the now-departed member, but if a board wants to change the PIG's membership, it should first allow the current PIG to report back and automatically dissolve. After hearing the investigative PIG's report and waiting until a subsequent board meeting to discuss and act on the report, the board can then create a new PIG to carry on the now-dissolved PIG's work.
- Similarly, once a PIG is formed, the board may not add new assigned tasks to an existing PIG.

## **PIGs Established to Negotiate**

Another less common type of PIG can be formed when two or more members of a board, but less than a quorum, are assigned to present, discuss, or negotiate any position adopted by the board at a meeting. The assignment of members to a PIG for the purpose of negotiation, and the scope of each member's authority, must be defined at a board meeting prior to the presentation, discussion, or negotiation. The three-meeting requirement for investigative PIGs does not apply to PIGs established to negotiate.

As a final note, boards should keep in mind that they may be subject to other laws or rules in addition to the Sunshine Law, which could affect members' ability to discuss pending matters. This may be particularly relevant for boards that exercise adjudicatory functions (which are not subject to the Sunshine Law), as they must generally avoid *ex parte* communications. Similarly, some boards are subject to confidentiality provisions outside the Sunshine Law, and if a board is involved in a procurement, it must follow procurement laws. Boards should consult with their own attorneys on the application of such laws and rules.

## HBGN 08/06/2024 Selected Oʻahu Names

Status	Feat ID	Feature Name	Feature Class	Corrected Name	Source	Notes	USGS Quad Name
3		Diamond Head	Summit	Corrected Famile	Source	PNH: Diamond Head; world-famous tuff crater the highest point is Lē'ahi Peakformerly called Lae'ahi and sometimes Diamond Hill (Kaimana Hila) in the 1800s. HBGN: The name is almost 200 years old (ca. 1825); designated as a National Natural Landmark; more research needed on variant names and historical context, 04-02-2024	Honolulu
3	363581	Punchbowl	Crater			PNH: Punchbowl; post-erosional tuff cone in Honolulu The National Cemetery of the Pacific is in the crater see Pūowaina. HBGN: Puakea Nogelmeier did extensive research; Mr. Camara will reach out to him; DHHL has lands outside of the crater; cultural significance as a leinaaka'uhane; more research needed, 04-02-2024	Honolulu
3	358606	Aniani Nui Ridge	Ridge			PNH: not listed; more research needed; 05-07-2024; HBGN: Registered Map 72 (ca. 1872) shows "Aniani;" online resources Papakilo Database and Ulukau both include records related to "Aniani Nui;" will check nūpepa, 06-04-2024	
3	358618	Api Spring	Spring			PNH: not listed; more research needed; 05-07-2024	Koko Head
3	358648	Awanui Gulch	Valley				Ewa

## University of Hawai'i at Mānoa LIBRARIES

000**%**000000**%**000000**%**00000**%**00000**%**0000**%**000**00%**000**00%**00000**%**00000**%**00000**%**00000

## **Copyright Notice**

Circulation Department- Digitization Request

Hamilton Library, Room 101 • 2550 McCarthy Mall • Honolulu, HI 9682 Phone/Voicemail: 808-956-7203 Email: uhmlib@hawaii.edu

**NOTICE**: The copyright law of the United States (Title 17, U.S.C.) governs the making of photocopies or other reproductions of copyrighted materials. Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or reproduction.

One of these specified conditions is that the photocopy or reproduction is not to be "used for any purpose other than in private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement.

This institution reserves the right to refuse to accept a copying order, if, in its judgment, fulfillment of the order would involve violation of copyright law.

PUOWAINA [ Punchbowl)

Puakea Nogelmeier
Research and Development
Hawaiian Studies Institute
The Kamehameha Schools/Bernice Pauahi Bishop Estate
March, 1985

[Honolulu]

DRAFT

#### FORWARD

The purpose of this work is to consider the Hawaiian name of Punchbowl, a crater and temple site in Honolulu. In searching for the "proper" spelling and pronunciation of a place name, one must look at the concept of place naming, the historic and geographical or geological uniqueness of the place and the changing importance of the area to those who use the name. Many names have been used for the area and they are listed for reference on pages 16-18. The form Pūowaina is employed throughout this paper, based on frequency of use and in keeping with the city's adoption of that form for the road that circles the crater. Its use here represents all of the variations that were recorded for this site.

In an effort to understand what Pūowaina represented to the Hawaiian speaker who used the name, as well as what it represents today, this paper offers a collection of various names used for Pūowaina, stories told about it, and historic deeds enacted concerning the area, all of which might enable the reader to decide on a preferred form of the name for use.

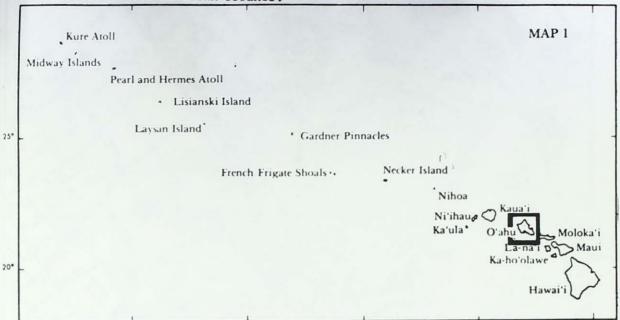
## TABLE OF CONTENTS

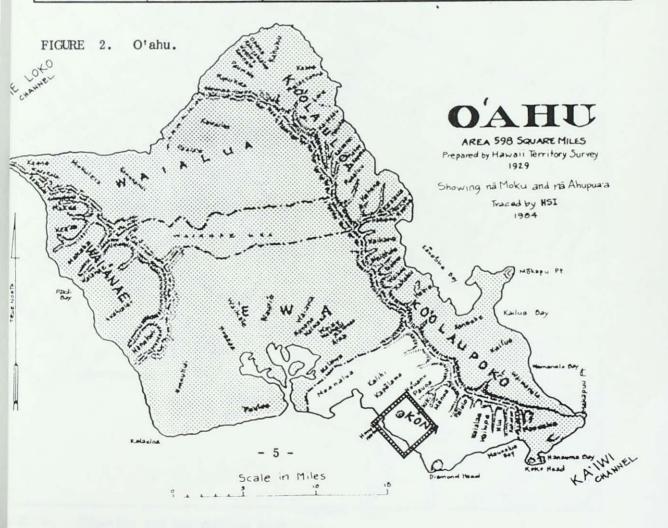
	Page
LIST OF ILLUSTRATIONS	3.
INTRODUCTION	7.
NAME VARIATIONS	15.
ORIGINS	20.
Geologic Origins	20.
THE LEGENDS	25.
The Menehune	25. 27.
Huanuikalāla'ila'i	30.
PUOWAINA - THE TEMPLE	33.
The Kapu Puhi Kanaka	35.
Sites of the Temple Complex	38. 43.
The Battle of Nu'uanu	46. 51.
PŪOWAINA - AFTER THE KAPU	54.
Pāpū Pūowaina - Fort Punchbowl	54.
Civilian Use of the Crater	61.
Puowaina Today - The National Memorial Cemetery	72.
CONCLUSION	78.
Consideration of the Names	78.
BIBLIOGRAPHY	85.

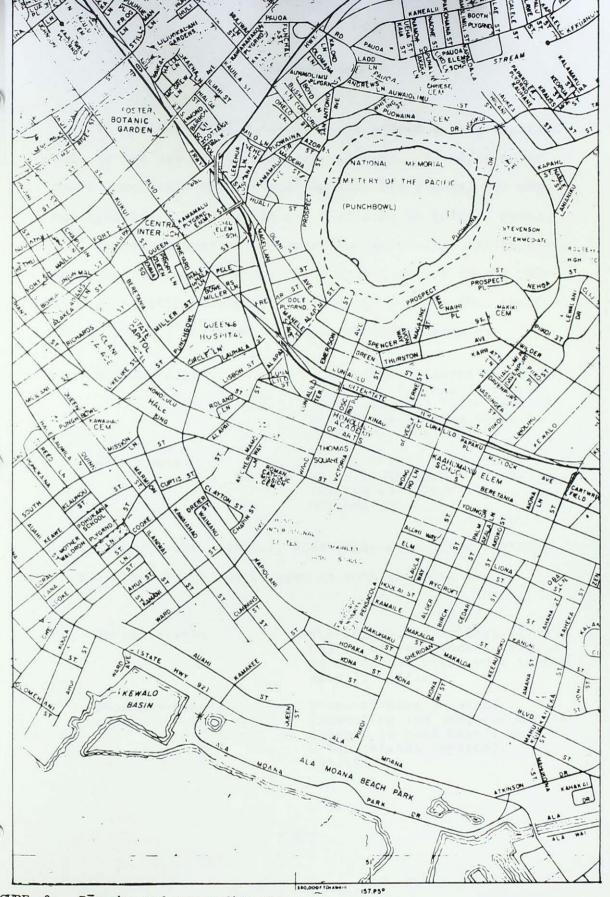
## LIST OF ILLUSTRATIONS

								Page
FIGURE	1.	Map	-	Hawaiian Islands		•	•	5.
FIGURE	2.	Мар	-	O'ahu		•	•	5.
FIGURE	3.	Map	-	Puowaina and surrounding area				6.
FIGURE	4.	Photo	-	Pūowaina (ca. 1870's)				8.
FIGURE	5.	Photo	-	Aerial view of Pūowaina (1929)	•		•	10.
FIGURE	6.	Photo	-	Pūowaina from Kewalo (ca. 1900)				14.
FIGURE	7.	Photo	-	Pūowaina (1872)		٠		20.
FIGURE	8.	Photo	-	Pūowaina and Lē'ahi from Āliapa'akai.	•			24.
FIGURE	9.	Photo	-	Upland slopes of P $\bar{u}$ owaina (1919)		•	•	26.
FIGURE	10.	Photo	_	Pūowaina (1915)			•	29.
FIGURE	11.	Photo	-	Pūowaina (1920)	•	•	•	31.
FIGURE	12.	Photo	_	Honolulu from Pūowaina (1984)	•		•	32.
FIGURE	13.	Photo	_	Puowaina sacrificial stone (1910)	•		•	37.
FIGURE	14.	Map	-	Pūowaina area temples and sites			•	41.
FIGURE	15.	Map	-	Pūowaina area site names	•		•	42.
FIGURE	16.	Photo	-	Kewalo fish pond			•	45.
FIGURE	17.	Map	-	Troop placements for Battle of Nu'uanu	•		•	49.
FICTION	1.9	Man	_	Troops movements. Battle of Nu'uanu .				50.

FIGURE	19.	Photo - Puowaina from Honolulu (1880's)	•		53.
FIGURE	20.	Photo - Puowaina from 'Iolani Palace (1898) .			58.
FIGURE	21.	Photo - Pūowaina cannons (1919)			59.
FIGURE	22.	Photo - Map - Batteries of Puowaina (1847)			60.
FIGURE	23.	Photo - 'Iolani Palace and Puowaina (1898)			63.
FIGURE	24.	Photo - Native house on Pūowaina (1908)			66.
FIGURE	25.	Photo - Pūowaina from O'ahu Prison (1875)		•	67.
FIGURE	26.	Photo - Easter services on Pūowaina (1927),			70.
FIGURE	27.	Photo - Puowaina sacrificial stone (ca. 1910) .			71.
FIGURE	28.	Photo - Pūowaina from Aloha Tower Honolulu (198	84)		77.







ICURE 3. Puowaina and surrounding area.

#### INTRODUCTION

In ancient Hawai'i, place names played a very important role in the use of the Hawaiian language. In addition to their locational value (denoting specific places) the names conveyed other information and were used in several ways.

The names bestowed by Hawaiians were often descriptive, carrying information about the physical nature of the named site or relating information about the actions that occurred there. Each place name offers a different example:

Ke-awa-'ula:

the-red-bay, (describes the extent of the  $m\overline{u}$ he'e (squid) which gathered there in such numbers as to make the sea seem red). (21:105)

Wai-'anae:

mullet-water, (describes how in this dry land water was treated as a special commodity). (72)

Historic and legendary references were often included in place names and can be seen in such examples as:

Ka-iwi-o-Pele

The-bones-of-Pele (recalling a battle of the goddess, Pele, in which her bones were thrown about). (21:71)

Põhaku-o-Kaua'i

Stone-of-Kaua'i island (connoting the demi-god Māui's attempt to pull Kaua'i and O'ahu islands together). (21:187)

FIGURE 4. Puowaina (ca. 1870's).



 $P\overline{u}owaina$  as viewed from the fields to the south, called Kulaokahu'a (plain of the boundary). A small building can be seen on the rim of the crater - most likely a part of the battery complex that dotted the crater's edge. (Bishop Museum, Neg. No. 74240)

and

Ke-ala-i-kahiki

The-pathway-to-Tahiti. (Channel where voyages to foreign lands were begun). (21:101)

Hawaiian place names then had understandable meanings, connoting stories or features that were well-known. These names were in turn used in formal speech (proverbs, prose, poetry and poetic speech) in such a way as to utilize their literal and/or connotative meanings. (21:266-271)

Use of a certain name in a chant or a well-composed witticism drew on these literal and connotative meanings of a name, calling to the mind of the listener other proverbs or sayings related to the site. Nu'uanu, "highest place-cold", could then be used if the composer wished to connote any of the following:

O'ahu island (where Nu'uanu is located);

cold (from anu);

high rank or station (from nu'u);

the famous battle which occurred there;

a person from the area.

Any of these meanings could be implied by the composer; the highlighted meanings would be determined by the poetic tone of the chant or phrase and by the other references therein. It is by reason of this complex use of alliteration and metaphor in formal speech that a composer was called a Haku Mele: a weaver of songs.

FIGURE 5 Aerial View of Pūowaina (1927). (U.S. Armed Forces, Bishop Museum.



Use of Hawaiian place names has changed; today 86% of the place names in Hawai'i are in Hawaiian while speakers of the Hawaiian language number only a few thousand. (21:x) This means that very few people can readily understand even the literal meanings of place names. The historical references and other connotative values of the names are understood only by well-versed speakers of Hawaiian and by students of the language and culture. This gap in understanding is widening because while the number of well-versed speakers of Hawaiian is decreasing, the number of place names using the Hawaiian language is increasing by legislative mandate. (60)

Those who do not understand the language use Hawaiian place names strictly for a locational function. The names only serve to identify one specific site from another and convey no additional information. Care to insure proper pronunciation or spelling is not taken and so the traditional meanings contained in the name are not reflected. When this continues over a period of time the traditional meanings can be lost unless they are recorded in available sources.

Even among well-versed speakers of Hawaiian today, many place name meanings are not clearly understood and others are lost to memory. In existing literature many of the place names are clearly explained, while some names are

explained with several opposing meanings by different "expert" sources; others have had no understandable meanings recorded for them. (21:262) For these names with no clear meanings, only historic research and reconstruction can clarify what the traditional meaning of the name could have been. Reconstruction of the traditional meanings of a place name can only be theoretical, based on the information contained in the name and on writings or oral traditions about the name that may be available.

For most names there are many ways that the name can be divided into its component words. Multiple homonyms exist for most components which lead to different literal meanings. To complicate the problem, if a name's meaning has become obscure, there are probably a number of spellings available, each with different divisions. The correct meaning may no longer be available by which to check proper pronunciation and spelling; which in turn reflect the name's meaning. Throughout this paper spellings of Hawaiian words are represented in the orthography of the 'Ahahui 'Olelo Hawai'i (Hawaiian Language Association) for consistency.

The only guide by which to choose from the number of possible spellings and literal meanings for a certain place name is the written and oral literature that pertains to the place. By comparing the spellings used by different

authors, the pronunciation used by native speakers, the interpretations of the name, the stories about the named area and the manner in which the name is used in formal language, one can surmise that certain interpretations of the name are more plausible than others. (21:254) This pertinent information for a place name is a very important window upon its meaning as intended by those who named it.

The remainder of this paper is a collection of background material pertaining to Puowaina, the place known by many today as Punchbowl. The variety of material should allow the reader to consider Puowaina and its many variations in light of the physical, traditional, and historic context in which the name exists.

FIGURE 6 Puowaina from Kewalo (ca. 1900).



 $\widetilde{\text{Puowaina}}$  as seen from the Kewalo salt beds. (Early 1900's.) (Bishop Museum)

## NAME VARIATIONS

Many spellings and interpretations exist for the name Pūowaina, which was commonly replaced by the English, Punchbowl, (at least in the English speaking community). The first written reference to the area was in 1823, using the English name, Punchbowl. (8:12) This early frequent replacement by the English name in the public record (newspapers, maps, and books) fragmented the usage of the Hawaiian name and the perpetuation of its meaning. By allowing use of Punchbowl when a proper spelling of Pūowaina wasn't known by the writer, perpetuation of a conventional form of the name was not fostered.

Use of the written Hawaiian name did not occur until the 1840's (62) and an explanation of its associated meaning did not occur in print until the end of the last century (6); a 50-year gap. Written use of the Hawaiian name is far less common than use of the English. Different variations of the Hawaiian name Puowaina have been advocated by a number of experts, many of them Hawaiian, and yet a great deal of disagreement exists over meaning and spelling.

It is impossible to state for certain that one form is the original name or even the traditional one. However, by comparing the meanings of the names with the traditions that pertain to the area, one can show that a certain form is more likely than others. Consider the name variations, along with the legends and history that relates to the area.

Some of these variations, as recorded in multiple written sources, are listed below in order of frequency in the available literature. They are represented in 'Ahahui 'Olelo Hawai'i orthography as follows:

- Puowaina a poetic contraction of Pu'u-o-waiho-'ana, hill-of-placing, connoting the placing of sacrifices atop the hill on the historically recorded altar of human sacrifice there. (21:195) (39)(66)(50)(51)(52)(40)(43)(11:vol.6:199) (11:vol.5:144)(54:1)(32:8)(26:291)(27:182)(25) (1:36)(65)(63)(55)(30:668)(48:6)(34:25)(46:1) (16:224)(58:28)
- Pu'uowaina a less uncontracted form of Puowaina, above, same meaning as above entry. (41)(1:35)(64)(26:291)(15)
- Puowaena hill-of-the-middle, central hill, referring to the location between Le'ahi and Kapukaki in the plain of the Kona district. (8:xxviii)(54)
- $P\bar{u}$ 'oina hill-sharpness or superiority, superior hill, reference to the kapu of the temples there. (44)(48:30)

The following name variations occurred in a single source and are listed here in alphabetical order:

Pūawai - hill-made-by-water, water made hill, no clear reference. (2:488)

Puawaina - hill-where-are-made-deposits, hill for placing, reference to sacrifices. (2:488)

Puoaina - hill-of coition. (57:131)

Pū'oi'oina - hill-superior-superiority, same as
Pū'oina, superior hill, but intensified. (26:291)

Pū'oi'oina - hill-of-night-marchers-here. (47:21)

Pu'uho'ano - hill-reverence-to-the-highest-degree, hill of highest reverence. (54:1)

Pu'u'io'io - hill-taper, tapering hill. (24:881)

Pu'u'io'io'ina - hill-of-resting-place, a place to rest when traveling between Waikiki and Kane'ohe. (48:30)

Pu'uohaina - hill-of-sacrifice. (3:93)

Pu'uowāinā - hill-of-brisk-action, strike-now-hill.
(47:21)

place on water

Pu'uwaina - hill-placing, placing hill, reference to placing human sacrifices there. (53:262)

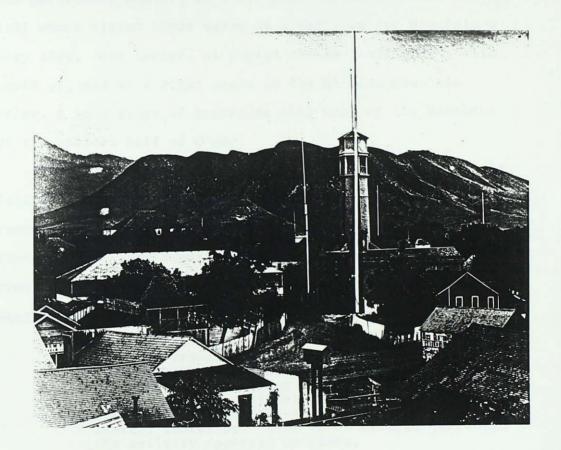
Puwaina - contracted form of above entry. (63)

In addition to literature sources, contemporary unprinted sources exist. The following are two variations on the name as collected by this writer:

Pu'uowaina - hill-of-wine, i.e. Punchbowl Hill. (73)

Pu'uowaina - hill-of-roar-from-afar, a reference to the roar of the ceremonies of the temples. (71)

## FIGURE 7. Puowaina (1872)



From Union Street in 1872, (near Hotel and Bishop Streets today), showing  $P\overline{u}owaina$  as a major landmark of the city. (R.J. Baker collection, Bishop Museum.)

## ORIGINS

Geologic Origins

Puowaina, situated directly behind Honolulu's business and government center, is a circular volcanic crater 550 ft. tall whose fluted edges serve as a backdrop for Honolulu's city life. The crater, of a kind called "tuff cone", sits south of, and at a right angle to the Ko'olau mountain range, a long ridge of mountains that make up the backbone of the eastern half of O'ahu.

The volcanic activity that had spawned the rest of the island of O'ahu had died almost 3 million years before the reawakening geologic forces that created Pūowaina's free-standing cone occurred. This late surge of volcanic power is well described in Doug Carlson's book Hill of Sacrifice: (4)

"The sea around [the island] rose and fell as great glaciers, thousands of miles away, formed and melted. The rising sea inundated much of the island, climbed at least 250 feet higher than now, then receded another 300 feet lower than the present shoreline. Some three million years ago the activity appeared to cease.

But a quarter of a million years ago the land cracked again in a north-south direction across a mountain chain. At the south end of the island, magma - underground molten lava, collided with rocks saturated with sea water and explosions broke out along the coral reef. The eruptions flattened the valley floor and built a series of tuff cones around the end of the island, cones of cinder and brown ash, characterized by their wide, saucer-shaped craters. . .

. . . Geologists tell us that Punchbowl was created in a single day - perhaps in just a few hours - as superheated volcanic gas and steam tore through the earth, blasting mud, ash and rock into the air to form a nearly circular tuff cone. They even tell us with certainty which way the wind was blowing that day so many thousands of years ago. Punchbowl's highest elevation is on its southwest rim, which means the northeast tradewinds were blowing at the time of the eruption . . . an ancient weather report contoured in earth and stone." (4:4,8,9)

The Hawaiians have a mythological account of the geologic past of these islands and they credit the creation of land forms such as  $P\overline{u}$ owaina to Pele, one of the deities of fire and volcanoes within the Hawaiian pantheon of legendary super-humans.

According to legend, Pele came to the Hawaiian Islands after the creation of the major land forms. Pele and her clan were escaping battle in Kahiki, (4) seeking a peaceful existence in new lands of volcanic fire. (22:48) Beginning their search at the northernmost end of the island chain, Pele's group investigated each island, found it less than desirable, and moved on to the next.

Reaching the island of O'ahu, Pele probed the earth with the wizard rod named Paoa and the twin craters Aliamanu and Aliapa'akai appeared. (9:xxvii-xxix) (23:9) The clan dwelt here for a time, but finding the site too shallow, Pele quenched the fires and the clan moved on. The craters remained in days past, both saturated with water. Today, the crater waters, one fresh, and one brackish, have been mostly drained to allow for residential construction.

Moving southward, Pele's wizard rod brought forth

Puowaina and then Le'ahi (Diamond Head) across the plain of
the Kona district. While on O'ahu, Pele spent her time
between these

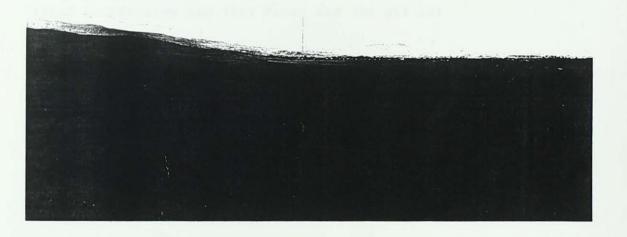
two volcanic cones and even considered the lands of Pele'ula, below  $P\overline{u}$  owaina, as a permanent home. The chant of her survey of O'ahu tells the story:

Ke kū nei mākou e 'imi i kahi e noho ai A loa'a ma Pele'ula:
O Kapo'ulakina'u ka wahine;
A loa'a i ka lae kapu o Maka-pu'u.
I laila pau ke kuleana . . .

Here we stand seeking a place to dwell And find <u>i</u>t at Pele'ula: Kapo'ulakina'u is the woman; And is found at the sacred cape, Makapu'u. At that place lies the boundary of our interest . . (9:xxviii)

Finally, deciding that O'ahu was not suitable as an abode for her clan, Pele led them to Maui to test her divining rod there. When she left, she extinguished the fires of Pūowaina and Lē'ahi. The crater of Pūowaina would erupt again one day - but that story appears in a later chapter. (page 27)

FIGURE 8 Pūowaina and Lē'ahi from Āliapa'akai.



The volcanic cones of Pūowaina (center) and Lē'ahi (right rear) as seen from  $\overline{A}$ liapa'akai. All of these volcanic craters are credited to the demi-goddess Pele, who raised them up in her search for volcanic fire. (Bishop Museum)

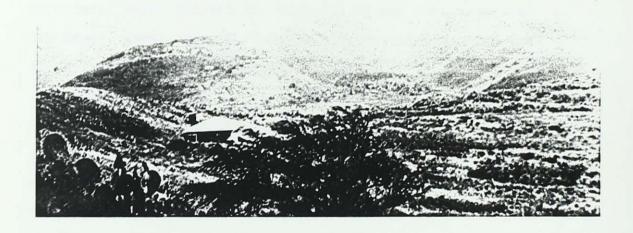
## THE LEGENDS

The Menehune

The next inhabitants of Pūowaina were the Menehune, an ancient race of people who inhabited the inland reaches of the islands in the earliest Hawaiian accounts and whose work in building with stone was a marvel to behold. It is said that the Menehune, who were brought to O'ahu by Kahano and Newa, were assigned to live at Pūowaina as well as at Pauoa and Kailua. (34:25,26) Kamakau says that the Menehune "lived on Pūowaina and that Pauoa was the pit for excrement." (26:291)

These menehune built a heiau in the uplands of Manoa at a site called "Kūka'ō'ō," which was very famous in ancient times. They engaged in battle with the owl gods of the leeward Ko'olau range and were defeated when the owl folk of Kaua'i flew across the 'Ie'iewaho channel to aid their kin. (32:131,132)

FIGURE 9 Upland slopes of Puowaina



The upland slopes of P $\bar{u}$ owaina (1919); legendary home of the Menehune. Pauoa valley is in the background. (Bishop Museum)

The volcanic power of Puowaina, which had lain dormant since Pele's departure from O'ahu, is said to have erupted again during the reign of Kakei, a legendary chief of O'ahu.\* He was reputed to be brave and skilled in the arts of war, and his court was filled with the most adventurous of the young island chiefs.

Kakei called his commanders together and urged them to prepare for battle on another island but would not name the target. While preparations were made, speculation grew as to which place would be chosen to assault. On the day of departure, Kakei ordered the flotilla of war canoes to head for Kaua'i and the surprise attack there netted a great haul of goods and a host of captives.

On the return of the victorious plunderers, a huge feast was prepared on the slopes of Puowaina. The booty and the captives were displayed and the eating and entertainment were extravagant. In the midst of the celebration, the earth jolted under the revelers and boulders from the cliffs of Puowaina began to crash down upon the crowd. People ran in all directions and many were killed.

With a second mighty crash, lava erupted from the fissures on Pūowaina's slopes, sending molten streams down upon the site of the feast and filling the heavens with

noxious fumes and smoke. Above the crater rim, the 'aumakua, or guardian spirits of the Kaua'i captives, could be seen majestically dancing, the booming of the eruption sounding as their drums, the billowing smoke as their adornment for the dance.

Kakei and the O'ahu people were terrified and moved immediately to propitiate the angry Kaua'i guardian gods. They gathered the captives together and rushed them, along with the Kaua'i plunder, into canoes to be taken straight away to their homeland. While this was being done, the leading priests of O'ahu chanted their pleas and promises of restitution to the angry 'aumakua.

As the canoes passed out of sight of the island, the roaring spirit dance ceased and Puowaina has not erupted again. (49) (32:112-120)

<sup>\* [</sup>Geologists say that Puowaina has not erupted since the advent of humans in Hawai'i. Ash from later neighboring eruptions (Pu'u'ohi'a, Pu'ukakea, Pu'u'ualaka'a) overlies a soil layer on Puowaina and this may have led to the story of later eruptions on the site. This lack of an historic eruption, coupled with no genealogical reference to the existence of Kakei infers that the story is a myth or parable rather than an oral history.]

Again in the distant past, but well within the memorized histories of the Hawaiian people, Pūowaina became the site of an historic tale. The surrounding area was famous as the home of Hua, who was known as Huanuikalāla'ila'i, Great-Hua-of-the-day-of-peace-and-calm. This Hua lived in the 11th or 12th century, and is listed in genealogies 35 generations before Kamehameha the Great. (5:34-36)

Hua was a chief of the Kona district, (known as Honolulu today). Born at Waikīkī, his court was at Kewalo and was called Kalia. At birth, his afterbirth was placed at Makiki, his navel cord was cut at Kānelā'au heiau in the lee of Pūowaina and the umbilicus was deposited in Pauoa, all in accordance with Hawaiian tradition.

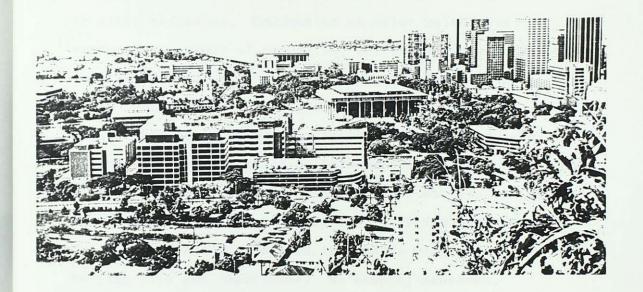
Hua was renowned as a good chief. His emphasis was on farming rather than war and it was he who developed the farming lands of Kewalo and Kō'ula on the plains below Pūowaina. He befriended the children of the countrymen and because of his goodness the people called him "Great-Hua-of -the-day-of-peace-and-calm". (43)

The tradition of farming, which Hua encouraged, apparently continued and spread until even the slopes of Puowaina were utilized. Handy says that Puowaina became famous as a site for growing 'uala, with the upland side of the crater being intensively farmed. (13:156)

FIGURE 11 Puowaina (1920)



This photo shows the mountainside slopes of the volcanic crater as seen from Pacific Heights. Many small farms and extensive aquaducts were still in use up to this time (1920). (R.J. Baker Collection, Bishop Museum.)



Honolulu's city center today. Note the Capitol Building (with pillars) standing apart at center right. The Royal Palace stands directly behind the Capitol Building. This whole area was fishponds and fields in the time of Huanuikalāla'ila'i.

PUOWAINA: THE TEMPLE

The Temple Complex

Heiau, or Hawaiian temples, were ritual centers built for specific ceremonial purposes. They were religious grounds dedicated to the gods, supporting war, agriculture or other endeavors. Ceremonies at major heiau were conducted by order of the ruling chief, as advised by royal counsellors and priests. The purpose or function of a heiau could be altered as the needs of the ruling chief changed. Heiau could be pressed into service to a new purpose or to a different deity and could be incorporated as one of a group of temples where religious services were observed in unison. The function was determined by the chief and his advisors.

In the area of Pūowaina there were many heiau of varying size and importance. Ka'akopua, Kahehuna, Kānelā'au, Mana, Kewalo, and perhaps Po'ouahi, along with the residences of the presiding priests, made up the complex of temples and sites that were involved in the heiau rituals at Pūowaina. In addition to heiau listed above, there were many small temples along the rim of Pūowaina and other important heiau along the back and sides of the crater. (37:D-1) (47:21)

Only the imu ahi, (fire-oven) or heiau puhi kanaka, (human burning temple) on the top of the crater rim was referred to as  $P\bar{u}$ owaina. The other named sites are mentioned in several accounts as functioning in conjunction with the ceremonies observed in the human sacrifice rituals of  $P\bar{u}$ owaina. (47:21) (4:12,13) (45)

Of these specific heiau, there apparently existed a unity; an auxiliary relationship whereby each one played a role in rituals that involved all of them. Historian Emma Nakuina, in her 1909 memorial account of the Battle of Nu'uanu refers to the surrounding heiau as "guard or outposts" of Pūowaina, which portrays Pūowaina as the central ritual site of the complex. (46:1,2)

The use of Pūowaina and the associated heiau as a single temple complex probably originated with the introduction of the burning ritual performed there. This ritual, invoked through the kapu puhi kanaka (human burning law), punished those who failed to observe the kapu, or religious rules, pertaining to gods and the highest ranking sacred chiefs. The kapu puhi kanaka originated on Kaua'i during the reign of Kawelomakua and Ka'awihilokalani sometime around 1500. (16:223,224) It was introduced along with the more familiar kapu moe, (prostration kapu), which required lesser ranking people to lie face down in the presence of sacred chiefs.

The kapu puhi kanaka was practiced only on Kaua'i at first and was inherited by the heirs of that island's rulers. During the time of Kauakahiakaho'owaha, a ruling chief of O'ahu, Kualono'ehu was sent to get this sacred kapu of Kaua'i for Kahamalu'ihi, the aunt of Kauakahiakaho'owaha. On O'ahu, this kapu of enforcing a chief's sanctity with the punishment of burning transgressors was inherited by Kualono'ehu and then by Kūali'i, at which time Pūowaina became the place for performing such burning sacrifices. This occurred sometime during the 1600's, according to

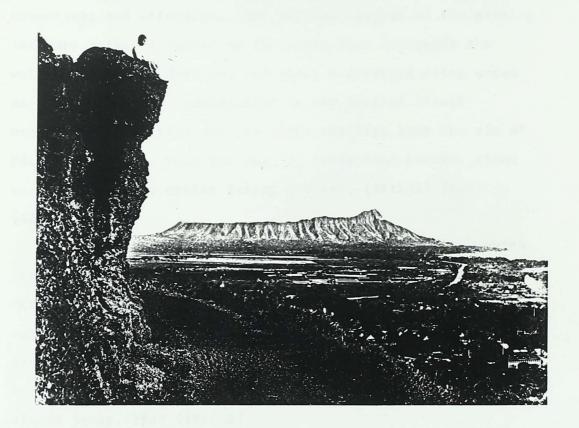
genealogical references. (20:389,390) Following the installation of the kapu on O'ahu, the ritual of burning men was extended to Maui and was practiced there. The sacrifices offered at Pūowaina were from Kaua'i, O'ahu and Maui only; the island of Hawai'i never did utilize the kapu puhi kanaka.

This kapu was a royal prerogative. It could only be imposed when the sanctity of the gods had been trespassed upon, or that of the highest orders of ranking chiefs, who were themselves considered to be of godly origin and relation. A chant pertaining to the human sacrifice by burning is as follows:

"'O ke okooko ahi kapu ia o Keaka,
'O ka haulapa ahi ia ke kuni,
I kapuahi no ia lehu
I kapuahi no ia wela,
'O ka 'Opikanaulani nui,
Kela he ali'i,
'O ke ka'ina la'au,
I loko o Haloa,
'O ka 'ao mae'ole i ka la ke kupa." (43)

"It is the sacred blazing fire of Keaka,
It is the scorching by fire, the burning,
As a furnace of those ashes,
As a furnace of that heat,
Oh the great distant heavenly place,
That one is a chief,
O the succession of the la'au
There within Hāloa,
The new shoot that does not wither in the day,
the familiar one."

Any person who became entangled with the sacred chiefs or with the rules pertaining to the gods could be slain and offered in burning sacrifices for the transgression. (43)



The sacrificial stone of Puowaina with Le'ahi in the background, 1910. The crevice in the base of the stone provided a draught of air that allowed sacrificial fires to burn exceedingly hot. (26:291) (R.J. Baker collection, Bishop Museum)

Sites of the Temple Complex

While the kapu system was still the backbone of Hawaiian religious and governmental organization, Pūowaina functioned as the focal point of a religious complex; associated areas that were utilized in conjunction with each other in the performance of major ceremonies and ritual executions and offerings. The physical layout of the area included heiau situated on the plain that surrounds the volcanic cone of Pūowaina, and these associated sites acted as auxiliaries and "guardposts" to the central ritual center: the huge flat imu ahi stone set high atop the rim of Pūowaina. (46:2) This imu ahi, or heiau puhi kanaka, stood on the rim of the crater facing the sea. (26:291) (41) (32:118)

Ka'akopua was a temple to the west of the crater, which later became the site of Princess Ruth Ke'elikolani's home, "Keoua Hale". (46:2) This is now the site of Central Intermediate School. This land area, from Ka'akopua extending towards Pūowaina, was called Kahehuna, site of a heiau of the same name that was situated where Royal School stands today. (43) (46:1,2)

Seaward of Kahehuna, where Queen's Medical Center is today, were the living grounds of the ritual priest of Pūowaina's temple. Following Kamehameha's conquest of O'ahu, his general, 'Aikanaka, an ancestor of King Kalākaua and Queen Lili'uokalani, lived here. 'Aikanaka was the last executioner in charge of the sacrificial altar on Pūowaina. Prior to Kamehameha's rule of O'ahu, Kapouhiwa was the kahu (guardian) for this temple complex, and it was probably his lands here, directly seaward of the imposing face of Pūowaina, that were acquired by the newly appointed priest under the victorious reign of Kamehameha. (59) (26:291) (39)

Just up the sloping base of Pūowaina from this residence of the high priest who officiated at the temple was the lesser temple of "Mana". (46:1,2) (18:81) This heiau was ceremonially linked to the temple of sacrifice above it on the rim of the crater. Situated between the site of the crater temple and the high priests' home, it may have been directly connected to major public rituals that were conducted at the Pūowaina temple as well as lesser, more personal rituals of the high priest.

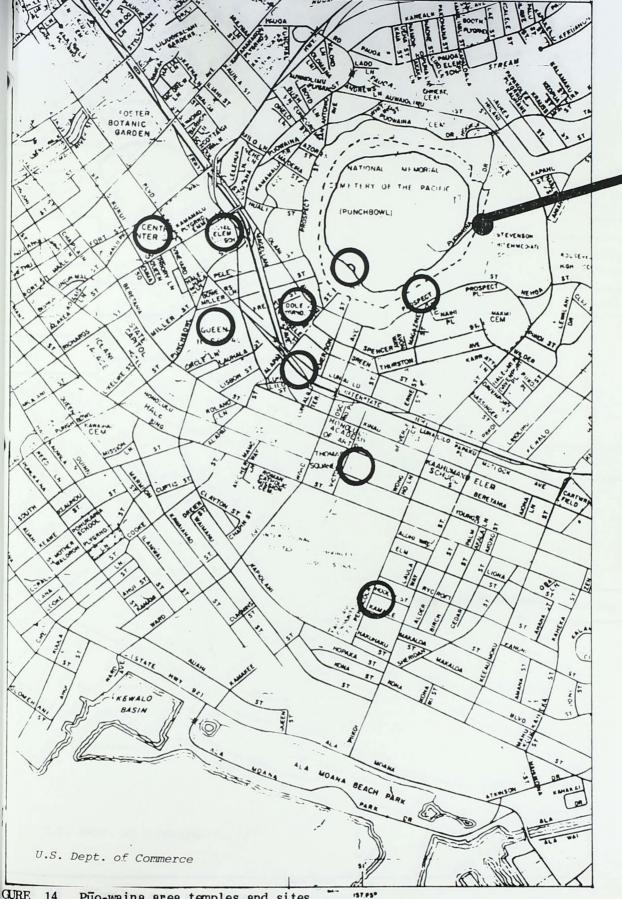
Also near to the homesite of the high priest, but in a direction towards Lē'ahi crater stood "Kānelā'au," an important heiau for hundreds of years prior to the time of Kamehameha the Great. (39) (43) (48:30) (46:1,2) (26:291) It was here that Huanuikalāla'ila'i's navel cord was cut at birth at least 35 generations before Kamehameha conquered

the island of O'ahu and it was here, following his decisive victory over the O'ahu king, that Kamehameha declared his law of peace, the "Kānāwai Māmalahoa". (40)

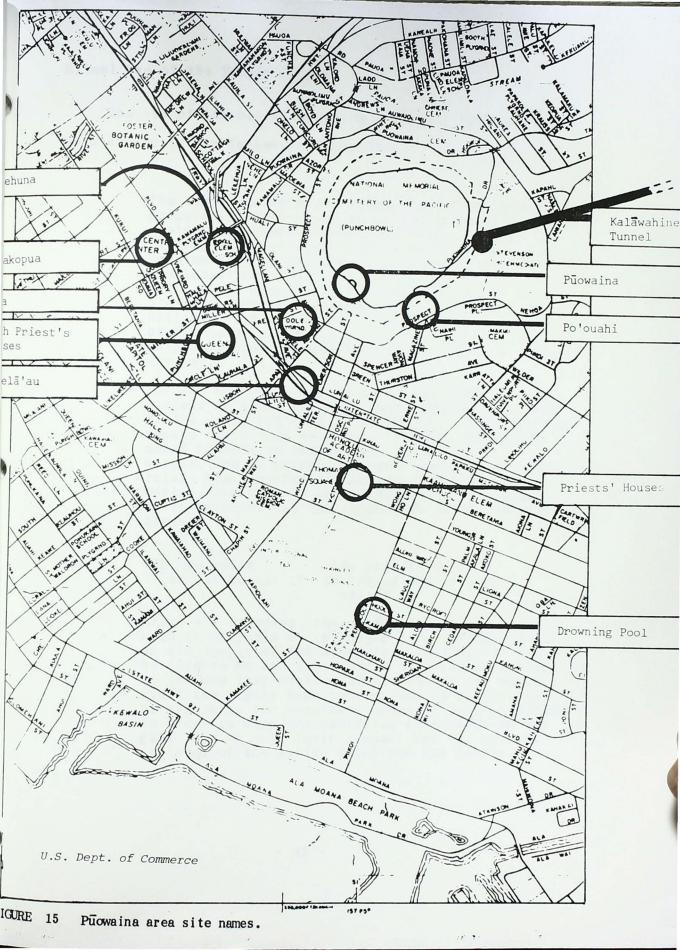
Po'ouahi was yet another sacrificial site in the area, located at the base of the eastern slope of the crater, to the side of the Puowaina temple. This temple was dedicated to Kū, the god of war, and human sacrifices were offered at its altars also. (47:21) Until recently, a tunnel called Kalāwahine connected the hillside of Kalāwahine and the slopes of Puowaina near Po'ouahi. (70) This tunnel may have been used in connection with rituals there. It has been closed by road construction.

Down in the coastal plains was Kewalo, once the site of fishponds and fields. One of the fresh water ponds here was set aside as a ritual area for the drowning of victims intended for sacrifice on the altar of Pūowaina. This pond was located near Pensacola St., where the Japanese Christian Church stands today. (18:81,82) (41) (43) (4:14) (48:30) The priests who served in the temples and who prepared victims for sacrifice lived in the vicinity of this pond, near the grounds where the old McKinley High School once stood at Victoria and Beretania Streets. (54:Appendix)

These sites are marked on the following map in relation to Puowaina and the layout of the city of Honolulu today.



CURE 14 Puo-waina area temples and sites.



Ritual Use of the Temple Complex

The use of the heiau complex surrounding  $P\overline{u}$  owaina could be pictured in the following vignette:

The lesser priests who served in the various heiau prepared for the upcoming ritual at their residence seaward of Pūowaina temple complex. Donning their ceremonial malo of white kapa and draping another white kapa as a cloak over one shoulder, they each tied a single strip of the white cloth around their heads and crossed the plain to where the intended victim was held waiting. The sacrifice-to-be was drowned in one of the ponds at Kewalo, set aside just for this purpose because a sacrifice could not be marred in any way.

The man did not struggle as he was drowned, because he knew that this punishment was the wish of the gods, and that if he were to resist the end result could only be worse. Indeed, his family could be made to suffer for his lack of cooperation or perhaps his own family gods would reject him, leaving his spirit to wander in the wastes, starving in the netherworld. The last words he heard was the intonation of the chanted lines:

"E moe malie "Lie peacefully
I ka wai ko ali'i" In the waters of your
chief"

After the drowning, the victim's body was carried across the plain to the major heiau of Kānelā'au, an old temple of the Honolulu chiefs now in service to Ku and the rituals of human sacrifice. On the way they would meet no one, as all would avoid the highly kapu and terrifying procession. At Kānelā'au the necessary services were performed in order to make the sacrifice acceptable to the gods, and to gain their support for the current ventures of the ruling chief and his people.

Following the rituals at Kānelā'au the priests proceeded up the slope, carrying their victim to the very top of the crater, where Pūowaina, the huge slab of stone used as a burning altar, stood on the crater rim. This stone received a good draught of air through a crack in the foundation which allowed the flames to burn well and exceedingly hot.

Here the high priest met with the group, having come from his residence at the base of Puowaina. On his way to the high altar, he had stopped at the heiau of Mana, between his houses and the crater, to complete the ceremonies that would prepare him for the ritual to come.

The victim's body was laid on a stone pyre piled high with wood for the occasion and fitting prayers were recited in offering the sacrifice to the gods, begging them to heed these small works of humankind. While the ritual prayers and the flames of offering were in process high above the plains of the Kona district, auxiliary ceremonies were performed at the adjoining temples of Kānelā'au, Ka'akopua, Kahehuna and Mana. (46:1,2) (26:291,292) (39) (40) (41) (18:81,82) (37) (4:14) (54:Appendix) (29:178)

Po'ouahi, a temple on eastern slope of Puowaina, may have also been involved in the ceremonies attending Puowaina. This heiau was a sacrificial burning site for human offerings, though it is said that the victims at Po'ouahi were killed, not by drowning, but by tossing them over the edge of the crater to the heiau below, where they were offered in sacrifice. This temple may have been used for captives in war rather than breakers of kapu, and it is noted that the intended victims for the fires of Po'ouahi were held inside of the crater awaiting their death.

(47:21) A prayer fragment, said to be associated with Po'ouahi and the sacrifices to Kū, goes as follows:

E  $K\overline{u}$  a  $m\overline{u}$   $m\overline{u}$ ! O  $K\overline{u}$  of the procuring of human victims, make silent!

E Kū a wāwā inā!

O Ku of besieging -hit- come on! (47:21)

Such was the described manner of the burning of human sacrifices prior to Kamehameha's overthrow of the O'ahu chiefs in 1795.

FIGURE 16 Kewalo Fish Pond.



Victims intended for sacrifice on the temple at Pūowaina were drowned in a pool like this one at Kewalo. (R.J. Baker collection, Bishop Museum.)

A central geographic feature of today's Honolulu, the crater of Pūowaina also played an important role in the battle of Nu'uanu in 1795; its surrounding temples being the site of intense and decisive combat. This famous battle was the final victorious assault by the warrior-king Kamehameha upon the individual chiefdoms of the island chain.

Landing his massive fleet of war canoes at Waikiki, he deployed his battalions and headed overland toward Pūowaina to meet the forces of O'ahu's sovereign, Kalanikūpule, and Kaomealani, his heir. At the heiau of Kānelā'au the opposing forces first met. Kalanikūpule's right wing of warriors fronted Ka'akopua heiau and his central battalion stood before Mana heiau. His left battalion stretched forward in a continuous rank from Kahehuna heiau to Kānelā'au. Kamehameha's armies were drawn up into three successive crescents across the plain of Kulaokahu'a, to the southeast of Pūowaina, while another regiment came secretly up the Nu'uanu Stream by canoe, escorting a cannon guard. (59)

Kamehameha's batallions were strong in their attack, overwhelming the Kānelā'au heiau grounds and then those of Mana. The forces of Kalanikūpule were pushed back to make a new stand; to maintain the defense of the temples of Kahehuna and Ka'akopua. (46:2) Here the fighting grew even

more intense and the O'ahu forces were split into two parts, each unable to assist the other. The smaller group, carrying the prince Kaomealani, retreated towards 'Ewa pursued by warriors under Nahili, a brilliant Hawai'i general. (46:2)

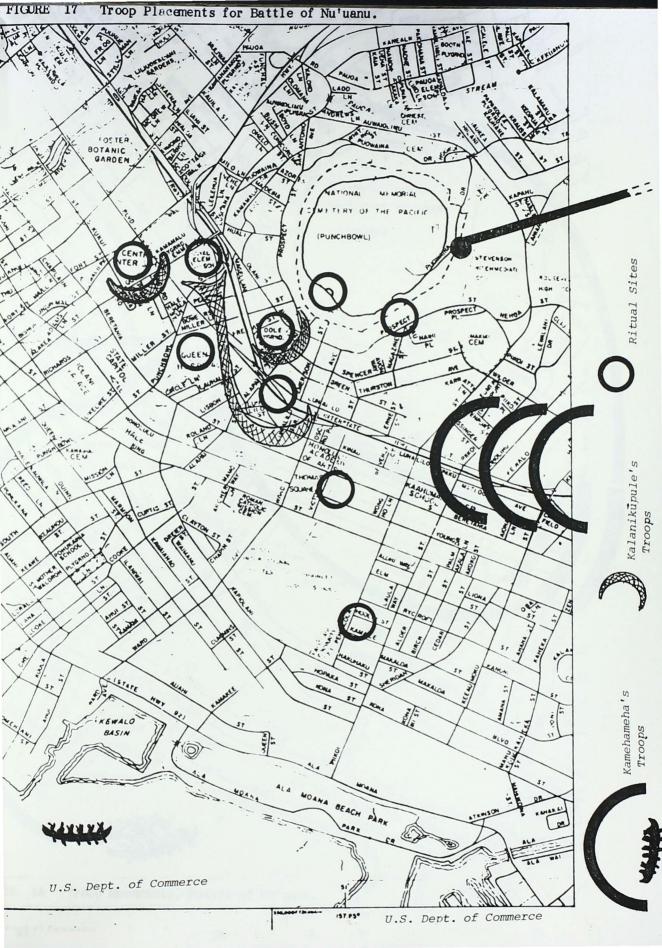
The larger remnant of the O'ahu army was led by Kalanikupule and Ka'iana, a Hawai'i general who had defected to O'ahu days earlier. They continued to do battle while retreating upland toward Pauoa valley, surrendering the temple grounds. The O'ahu chiefs defended their retreat until a surprise attack was launched from their upland side by Heulu. This commander of Kamehameha had secretly brought a battalion of Hawai'i warriors over the Papakolea mountain pass behind Puowaina. (46:2) (54:2) (59) (11:Vol.V ptII p.474)

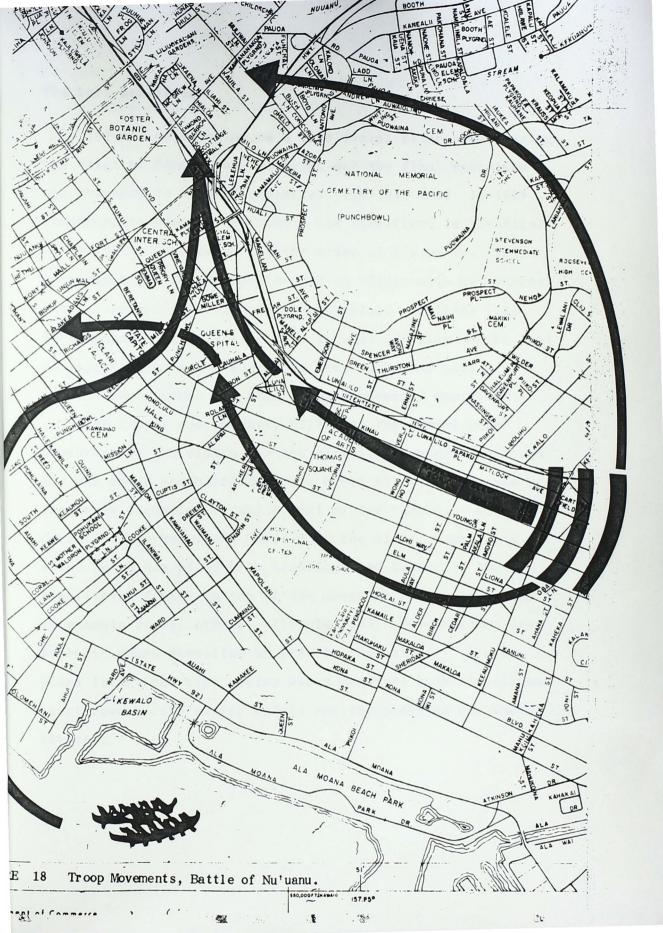
This second battle front was overwhelming to the O'ahu forces and they retreated across Pauoa valley and up to 'Elekoki, where Ka'Tana was killed and Kalanikūpule seriously wounded. Still fighting bravely, Kalanikūpule led O'ahu's army up to the heights of Pū'iwa and Ahipu'u to take advantage of the higher ground. They gained the heights, but the O'ahu army was still forced backwards into Nu'uanu Valley by Kamehameha's onslaught. Kalanikūpule was taken to the heiau of Mua where he was left to die of his wounds. The O'ahu forces, having lost their leaders, fought now only to give their families in the inner part of Nu'uanu Valley time to escape over the treacherous Pali cliff trails.

Kamehameha's victory over O'ahu was assured and at the edge of the Ko'olau cliffs he ordered his warriors to cease the battle. O'ahu was his. Kamehameha had conquered the Hawaiian islands excluding Kaua'i, which he would later gain through treaty. (46:2) (54:2) (59) (11:Vol.V,p.11)

Following the conquest of O'ahu, it was at the heiau of Kānelā'au that Kamehameha declared his law of amnesty, "Ke Kānāwai Mamalahoa." In this announcement of amnesty for the defeated O'ahu people he declared:

- "1 Now that peace is accomplished, you must return to your homes and turn your spears into digging sticks and your war canoes into fishing canoes that the people may prosper.
- 2 Look not upon your own as mere dogs, but feed them and care for them.
- 3 Let there be no lazy person within my lands." (40)





The Last Sacrifice

The use of Pūowaina as a sacrificial altar ended during the reign of Kamehameha the great and the final execution was recorded in several accounts. (16:194) (44) In 1809, Kamehameha's nephew, Kanihonui, was sacrificed in the fires of the altar at Pūowaina by the order of his uncle. This punishment was for his having had an affair with Ka'ahumanu, the favorite wife of the great conqueror. (16:194) (44) Kamehameha was the last to burn a human offering on the hill of sacrifice; the new king from Hawai'i island having adopted the customs and kapu of his conquered dominions.

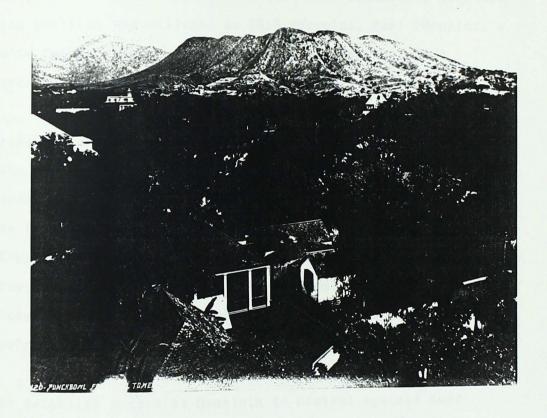
The ritual was slightly different than usual under Kamehameha. The victim was not ritually drowned beforehand but was bound and carried to the altar alive. 'Aikanaka was the newly installed ritual priest of the temple. Under his direction Kanihonui was carried to the altar, bound to a stake which was piled with kindling, and burned in the sacrificial flames on top of the mountain as a warning and an example to all others. (16:194) (44) This was the last recorded human sacrifice by fire in the islands. Eleven years later, the kapu system which mandated such rituals was overthrown by the ruling chiefs and the practice was ended forever.

There is, however, a story told about a later sacrifice upon the stone altar of Pūowaina in 1862. If true, then this would be the final sacrifice at the temple. Alexander Liholiho, the 4th Kamehameha and grandson of the conqueror, is accredited with, or accused of, the event.

Following the tragic death of his son and only heir at age four, the king was overwhelmed by guilt and sorrow. He felt responsible for the death of his only child. It is said that he let it be known that no one was to leave their homes on a certain night following the prince's death. The native population was mystified but complied.

The actual events that took place that night are unknown, but a fire burned on the altar of  $P\bar{u}$ owaina and the smoke enveloped the crater top. It was speculated that a stray sailor easily could have been sacrificed to propitiate the gods in their anger; an atonement for the king's feelings of guilt.

The king was never questioned about the events of that night and the rumor was never substantiated. If the story were true, this was the last sacrifice at Pūowaina's temple. (32:118)



Pūowaina as seen from Honolulu in the 1880's. The top of Ruth Ke'elikōlani's home, Keōua Hale, appears through the trees at left. That area was once the site of the Heiau Ka'akopua.

# PUOWAINA - AFTER THE KAPU

Pāpū Pūowaina - Fort Punchbowl

For centuries Puowaina had been used as a ritual center because of its position, towering over the plains of the Kona (Honolulu) district. After the site was no longer used as a heiau and a sacrificial altar, this commanding mountain top position was utilized as Pāpū Pūowaina, Fort Pūowaina, a site for a battery of cannon and an observation point overlooking Māmala, the harbor of Honolulu.

In 1816, while Kamehameha was in Kona, Hawai'i, he received warning from Kalanimōkū, his O'ahu advisor, about the new Russian trading post built at the seaward end of today's Fort Street. The post was too strongly fortified to be intended only for trade and Kalanimōkū suspected that the Hawaiians would soon experience difficulty with Russian desires for Hawaiian lands. By Kamehameha's order the Russians were driven out of O'ahu and their stronghold was seized.

Kamehameha commanded John Young, his military adviser, to establish a fort at Honolulu to protect against such potential aggression. The fort, Kekuanohu, was built at the site of the Russian post, incorporating the Russian

fortified structure into it. (3:23) Eight heavy guns were placed atop the rim of  $P\overline{u}$ owaina crater facing the harbor to defend and support the new fort (4:20) (54:3) and Captain George Beckley was appointed as the fort's first commandant. (17:Vol.I p.58)

While the chief Boki ruled as the governor of O'ahu, he put his nephew Manuia in charge of Kekuanohu and its support guns on Pūowaina. During this time Boki considered building a second fort on the rim of the crater. (12:234)

Boki later named Kekūanāo'a as commander of the fort and Pūowaina during the rule of Kauikeaouli, Kamehameha III. New batteries of guns were placed on the crater and the area was developed as a second true fort. By 1838 "Fort Honolulu", (as Kekuanohu was being called) was protected by 14 guns on the crater, 7/8 of a mile inland from the fort. (35:83) In an account nine years later, only 11 guns were listed, accompanied by 33 officers at "Pāpū Pūowaina". (14:239,240)

King Kalākaua increased the number of guns at the batteries of Pūowaina during his reign in an effort to upgrade the military efficiency of the nation. The fort remained as an island defense throughout the reign of Kalākaua's sister and heir, Lili'uokalani. Following Lili'uokalani's overthrow in 1893, Fort Pūowaina was in the hands of the new republican government and held an obvious military vantage point over the city of Honolulu.

Recognizing the importance of this position, Captain Samuel Nowlein, a staunch royalist, led a group of faithful supporters of the queen in an effort to wrest the mountain fort from the new government's forces. The republican soldiers turned the guns on the royalist insurgents and they were trapped and forced to surrender. This was the last time that the guns of Fort Puowaina were fired in defense. (54:3)

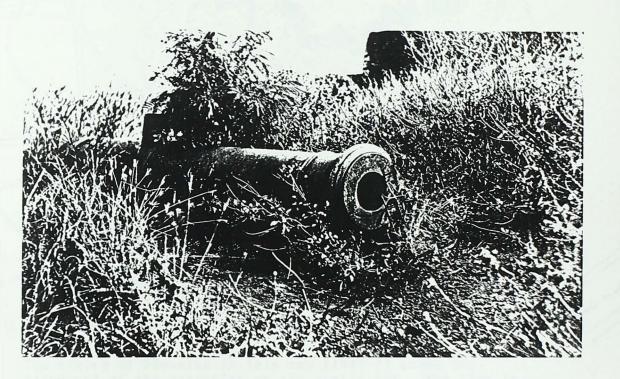
Following the successful takeover of the monarchy and the eventual status of the islands as a territory of the United States, the fort at Pūowaina fell into disuse. The cannons could be seen rusting in neglect on the crater rim. [see Figure 21] The inside of the crater was used by the National Guard of Hawai'i as a reservation and shooting range from 1914 through 1940, when World War 11 broke out.

At the beginning of the war the crater was re-armed as a military defense post. (37) The local defense forces had decided that Pūowaina would be an important vantage and defense base to protect the islands from possible enemy attack. The Hawai'i Separate Coast Artillery Brigade, (H.S.C.A.P.), restocked Pūowaina's crater rim with four 155mm cannon and set up a watch post to give alert in case of the arrival of enemy ships. (54:4) This battery was also responsible for maintaining a fire watch over the fleet housed in Pearl Harbor. (37)

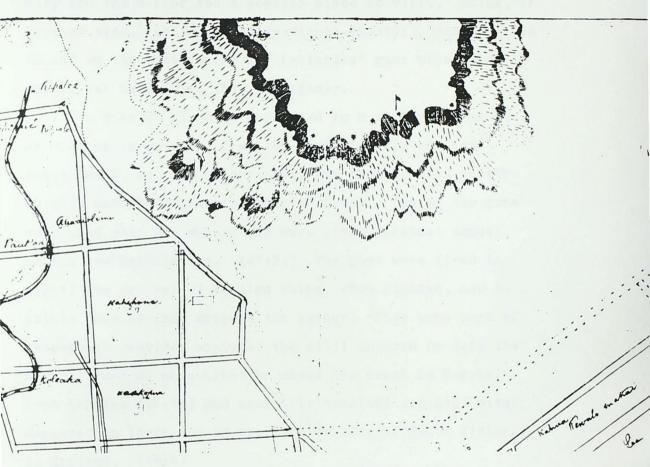
The Hawaiian islands never did encounter an attack by sea during the war; the tragic loss of life at Pearl Harbor occurred as a result of an attack by air. The battery was not equipped to deal with air attacks and as such, there is no record of a single shot being fired in defense during the whole of the war. (54:4)



 $P\overline{u}owaina$  from 'Iolani Palace, 1898. The cannons on the crater rim held an important tactical position over the city. (Bishop Museum)



After the annexation of Hawai'i by the United States of America, Fort P $\overline{u}$ owaina was not used. The guns of P $\overline{u}$ owaina laid rusting and neglected on the slopes, (1919). (Bishop Museum)



The sketch of Puowaina in this map (1847-9) shows the placement of the batteries on the crater rim. The flag is placed approximately where the temple of sacrifice once stood. (State of Hawai'i, D.L.N.R.-Maps Division; Metcalf 1847.)

civilian Use of the Crater

During and after the monarchy years, Pūowaina was used for other purposes in addition to its military role. No longer sanctified by the strict kapu of its temples, the crater and its slopes became a pleasant place to view the city and the harbor and a popular place to visit. Hōlua, or dryland sleds, plied its steep slopes (26:291), people lived in and on the crater, and the batteries' guns were heard in salute far more often than in defense.

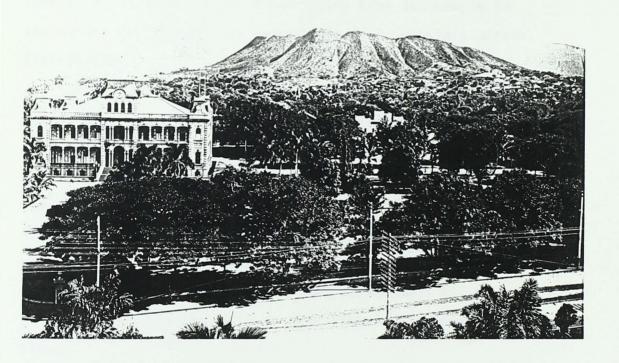
The guns of Pūowaina were used in a ceremonial manner, as well as in defense, from the time of their earliest installment, because gunners atop the crater could easily observe and follow events going on below. Two of the guns were used only for salute and were given personal names:

Kalola and Kalāhikiola. (47:21) The guns were fired to signal the arrival of foreign ships, when sighted, and to salute them as they entered the harbor. This same sort of salute was provided whenever the ali'i entered or left the harbor, such as when Liholiho moved his court to Honolulu from Lahaina (17:74) and when Lili'uokalani and Kapi'olani departed on their way to the 50th Jubilee of Queen Victoria in England. (19:9)

It was common to salute actions of the ali'i with the ceremonial guns of Pūowaina. The fact that Liholiho, Kamehameha II, was drinking in nearby Nu'uanu valley was sufficient cause for salute in 1821 (12:251). In 1854, when the guns sounded 41 times in unison, all of the city of Honolulu knew without further announcement that the 41-year-old king, Kauikeaouli, Kamehameha III, had passed away. The reaction was immediate and the wailing and chanting of the mourners could be heard from all areas of the city. (28:58,59)

On June 19, 1856, a happier day for the nation, the guns sounded in honor of the new king's wedding. (33) Alexander Liholiho, the 4th Kamehameha and successor to Kauikeaouli, married Emma Rooke at Kawaiaha'o church near the old royal palace. From their vantage point directly upland of the church, the gunners of Puowaina could see the proper time to sound their salutes to the royal couple.

Salutes from the guns became a tradition for royal births, deaths, arrivals and departures. Kalākaua was condemned for his break from custom when he refused to allow the guns to be fired to honor the death of his predecessor, Lunalilo. The newly instated king, Kalākaua, wanted to downplay Lunalilo's popularity, however, the idea backfired and many negative articles appeared in the papers denouncing Kalākaua for his actions. (54:3)



Pūowaina looms behind the Palace in this photo, 1898. Ceremonial salutes of the cannon on Pūowaina were commonly performed to honor the special activities of the ali'i. (Bishop Museum)

The same good view that allowed for early warning of approaching ships and timely salutes attracted island residents up to the rim of Pūowaina for a lovely view of the whole side of the island. Tourists, a new and increasingly frequent phenomena in the islands, were also advised to make the journey up the crater's slopes to take in the view from there. (8) As early as 1825 it already attracted numerous visitors and in an account of a meteor shower over Honolulu that year, it says that a clamor arose from the people on the crater who thought the booming to be a warship's attack. (36:232,233)

The city of Honolulu was growing more beautiful every year. What had been a relatively undeveloped plain of scattered fishponds and small farmlands at the time of the misssionaries arrival in 1820 was becoming a lush, thickly planted place, so filled with mature trees that only the highest points of tall buildings and spires of churches could be seen. (4:20) The planting of trees and greenery throughout the city had been strongly encouraged by the government and citizens alike; this extended to Pūowaina itself.

A newspaper account in 1875 tells that King Kalākaua led his troops up to the crater to plant trees on its slopes and interior. The effort was intended to beautify the area

and to experiment with the introduction of various trees in the drier areas of the island. The planting included algeroba, eucalyptus, koa, 'ōhai ali'i and other trees, set out in circular rows and spaced to allow for carriages. The soldiers of the king were responsible for the daily maintenance, a process which called for hauling sufficient water from the grounds of today's Queen's Medical Center to the crater. (45) (4:18)

Enjoying all of this ever-increasing beauty were the picnickers and tourists who came daily to sample the vistas and enjoy the solitude of the heights there. The favorite lookout point was the site of the once sacred burning temple. Initially reached by foot or on horseback, eventually cars plied the road that climbed to the overlook. The ceremonial stone has been quarried away to make room for today's overlook, a once sacred site visited today by about 3 million tourists a year. (68)

At the turn of the century, Pūowaina was still far enough removed from the bustle of Honolulu that the city banking institutions felt safe digging their vaults into the upland slopes of the crater. (56) As the city of Honolulu grew, fashionable houses began to be built, rising up the slopes of Pūowaina. This allowed the homeowners to enjoy the view of the city while not becoming too removed from the conveniences of city life. (This building on the heights of

Puowaina has continued unabated until today and has developed into a controversy over scenic versus construction rights.)

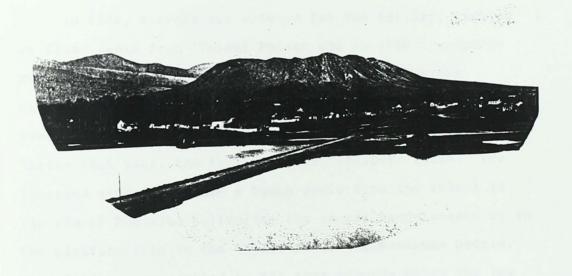
In the early 1900's people were living inside of the crater. Normally a very dry area, the residents managed to make a living in the crater by raising animals and by collecting seeds to string into leis. The photo below, taken by R.J. Baker, shows his wife being entertained outside the rural style house of a native couple who lived inside of the crater.

FIGURE 24 Native House on Puowaina (1908).



A rustic "native house" on Puowaina, 1908. Panini (cactus) and Kiawe trees thrive in the semi dryland conditions of the crater. (R.J. Baker collection, Bishop Museum)

FIGURE 25 Puowaina from O'ahu prison (1875)



Puowaina from the west (ca. 1875), showing the freshwater ponds of the Iwilei area. (Bishop Museum)

The Easter Sunrise Service

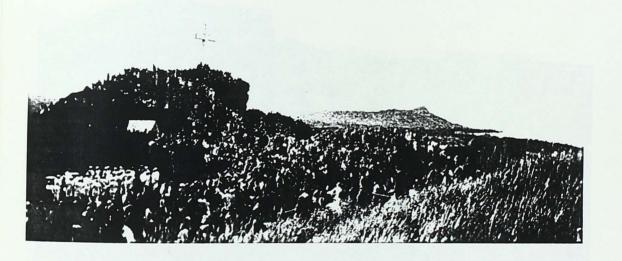
The celebration of Easter at Puowaina began at the turn of the century and continues to be observed today. In 1902, a few boys of the neighborhood convinced their Sunday school teacher to hold an Easter service at their favorite spot, the crater rim. This first observance was held by the Portuguese Protestant Mission Church, now called the Pilgrim Church. (25:8) (4:25) In 1905 the event was sponsored by the Y.M.C.A. (25:8) and since then it has become an annual event, officially adopted by the Hawai'i Council of Churches since 1918. (4:25)

In 1920, a cross was erected for the holiday, lighted by floodlights from 'Iolani Palace and in 1926 a campaign was begun to erect a suitable platform for the cross. Students were encouraged to deliver rocks the size of their heads to nearby (old) McKinley High School and, prior to Easter that year, the feat was done. (37:D-1) (4:26) Two thousand students formed a human chain from the school to the rim of Pūowaina delivering the stones hand-to-hand up to the platform site in the tradition of the Menehune people. The platform was erected on the same grounds where the imu

ahi once burned law-breakers and the Easter cross was raised on top of it. Today this platform has been replaced by the larger platform of the scenic overlook. With the cross being erected every year on the edge of the crater where the imu ahi once stood, the service lends a continuity to the use of the site for worship, though the form of worship has changed.

For decades the annual installation of the cross has been the responsibility of high school students from the Kamehameha Schools. Instructor Louis Hubbard has handled the project with his class for 20 years, erecting the 22-1/2 foot, 400 lb. aluminum cross designed by his predecessor, Bill Thomas. The responsibility for the cross is a tradition at Kamehameha Schools, as is the observance of the Easter sunrise service for the thousands who attend every year.

FIGURE 26 Easter Sunrise Sevice on Puowaina (1927)



Easter Sunrise services began to be observed at  $P\overline{u}owaina$  in 1902 and have become a tradition. The cross is erected for the weekend of the religious holiday. (Bishop Museum)

FIGURE 27 Puowaina sacrificial stone (1910).



This view of the same area, (ca. 1910), shows the remains of the temple of sacrifice, before the sacrificial stone was quarried away. The Easter cross is erected on the site of the old temple. (Gonsalaves collection, Bishop Museum)

Puowaina Today - The National Memorial Cemetery

Puowaina, once a temple, then a military post, a picnic spot, a homesite and a rifle range is hallowed ground once again, as a shrine to the nation's war veterans.

At 1:59 p.m. on September 2, 1949, a cross-shaped formation of fighter jets approached Pūowaina from the sea. (31:3) As they passed over the crater, ceremonies were begun for the formal opening of the National Memorial Cemetery of the Pacific - the largest national cemetery outside the continental U.S. (54:4) (7:23) A multi-million dollar project (despite Hawai'i's donation of the land), this 117-acre cemetery for America's war dead and military veterans is nestled in Pūowaina's crater and now contains almost 30,000 graves along with memorials for 26,000 soldiers "whose resting place is known only to God". (31:2,7) (68)

Already listed on the National Register of Historic Places under the name Pūowaina and currently nominated to the Hawai'i Register of Historic Places, the cemetery was initiated in 1941 by national legislation. Postponed due to the war and insufficient funds, it was completed in 1948. Burials were begun on January 4, 1949. (54:6) The first

interment in the new grounds was that of an unknown soldier killed in the bombing of Pearl Harbor on Dec. 7, 1941.

(31:3)

For over six months, non-public burials were continued for those killed in Pacific theaters of battle and for Hawai'i's own battle losses. (4:34-36) (31:3) On July 19, 1949, the public was allowed into the cemetery to witness burials of others lost at war. War correspondent Ernie Pyle, who had died at Ie Shima, was the first to be interred in the public's presence. (4:36) Today graves exist for soldiers representing every war that the U.S. has engaged in, including the Spanish American War, the Boxer Rebellion, World War I and II, the Korean war and the Vietnam war. (31:10)

The landscape artist who designed the National Memorial Cemetery of the Pacific was Katherine Thompson, the same woman who designed the grounds of the Academy of Arts and the Armed Services Y.M.C.A. in Honolulu. (54:6) The landscape plan for the area was one that would provide peace, beauty, and a panaromic view, using an informal style that would blend with the surrounding community. (54:6)

This plan was kept in mind when the war memorial was begun in 1962. The memorial consists of a chapel, a gallery of mosaic maps of Pacific theaters of action, and eight galleries of names of the missing, which border a monumental central stair ascending to a 30 ft. statue of Columbia.

The design of the memorial was controversial, but it wasn't the first controversy stirred by the cemetery. In the 1890's, when the idea of using Puowaina as a cemetery was first proposed, a strong reaction had occurred against the first suggestion of "A city of the dead . . . above a city of the living". (4:25) This same objection arose again when earnest efforts to use Puowaina for a graveyard were re-initiated.

Shortly after its dedication, a public argument began over the use of the cross and the star of David on all of the graves. This was in conflict with the doctrine of separation of church and state and insulting to non-Christians. This conflict was resolved after lobbying by the veterans of the highly decorated 442nd Regiment, all of whom were of Japanese ancestry and many of whom were of the Buddhist or Shinto religion. (54:4,5) (4:39) Flat head-stones are used today, appropriately marked as to religion of the deceased.

When the murals of the war memorial came up for much needed repair in 1968 they were criticized harshly for their lack of value as art and have since been replaced by mosaics. Also criticized was the "bosomy" statue of Columbia, which was called an "eyesore" and "a monument to bad judgement". (42) Today it is still intact, dominating the center of the memorial.

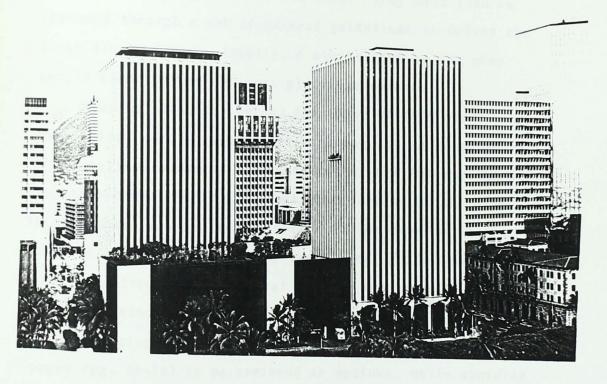
A very contemporary controversy pertains to the fact that the whole of Puowaina crater is rapidly disappearing behind an ever-increasing wall of high-rise buildings erected on the slopes to take advantage of the fine view from there. Haphazard zoning and construction planning have allowed extensive building to occur, with many buildings blocking the view from the crater rim. The visibility of the historic site as well as the view from the area are directly compromised and yet politicians choose not to enact the zoning necessary to maintain the integrity of the site. The Veteran's Administration, who controls the cemetery, has opposed extensive construction. (54:5,6,recommendation sheet) (31:3) This kind of leverage may result in zoning changes in the future, enacting building height limitations.

Zoning of the area may change, but Pūowaina's status as a national cemetery is stable. By being designated as a cemetery, the use of the crater is perpetuated as such for all time (barring unforseeable circumstances). In many ways the history of Pūowaina stops at this point, at least in regard to its background of changing functions and roles.

Some of the functions of Pūowaina are perpetuated, however, and as the home of the National Memorial Cemetery of the Pacific, the crater is once again the scene of a variety of ceremonies and celebrations, recalling its archaic use as a ritual center. Easter sunrise service, the

Hawaiian Folk Mass, Veteran's Day, and Memorial Day are all formally celebrated in the crater. In addition to the major public ceremonies, many private rituals occur, reflecting the personal price of the losses of war. To console the individuals who come to mourn their own, the bas-relief quotation in the memorial reads: "The Solemn Pride That Must Be Yours- To Have Laid So Costly A Sacrifice Upon The Altar Of Freedom". (38)

FIGURE 28 Puowaina from Aloha Tower, Honolulu (1984)



A very contemporary view of Puowaina as glimpsed from Aloha Tower, 7/8 of a mile away. High-rise construction threatens the view of the once-prominent landmark from many areas of the city.

## CONCLUSION

Consideration of the Names

The goal of this paper is to select the most likely original or traditional form of the Hawaiian name for the Punchbowl area. Eighteen names have been recorded in this work, spanning one hundred sixty years of recorded use. It must be assumed that each reported form of the name represents the intention of its user. They will then be reviewed through a set of general guidelines to delete the least likely forms. Ideally, a single form of the name should stand out as the most plausible option.

Many criteria are beyond the scope of this paper. Statistical work on pronunciation among native speakers of the Hawaiian language is important, but has not been done for this name. Early post-contact reporting of the name and its accepted meaning at the time would be invaluable, but this is also unavailable. Of the general guidelines which can be applied here, the first is that the name be recorded. This is basic, but sets necessary parameters. This guideline allows for all of the name forms collected in this paper (pg. 16-18) to be reviewed as options, while avoiding speculation on unrecorded forms.

A second guideline is that early recording of a name form increases its potential as a traditional form. This criterion is a double-edged sword in that the earliest recorders of this kind of information were sometimes the least familiar with Hawaiian spelling conventions, so consideration of the source of the name is very important. Giving added consideration to early recordings also recalls that the earliest written record of a name for the area used the English, Punchbowl (pg. 15).

The following is a chronology of early occurences of different forms of the name, along with their sources. The period of recording being considered here begins with Captain Cook (the first attempt at writing Hawaiian) and ends in 1900. This would be the most likely period for the traditional name to have been used and properly recorded. Those name forms which occur later than 1900 are not to be summarily dismissed as wrong, but are more likely to be innovations developed through folk etymology.

1823 - Punchbowl (Reverend William Ellis)
1843 - Pūwaina (James Wild, Mapmaker)
1856 - Pu'uowaina (Anonymous, Ka Hae Hawai'i)
1865 - Pūowaina (Samuel Kamakau, Hawaiian Historian
- Pūawai, Pūawaina (Lorrin Andrews, Judge)
1880 - Pūoaina (Kalaikuahulu)
1881 - Pūowaina (Interior Dept., Hawaiian Govt.)
1883 - Pūowaina (Royal Genealogy Board, Po'omaikelani, Pres.)
1884 - Pūowaina (Interior Dept. Hawaiian Govt.)(2 separate memos)
1892 - Pu'uowaina (Charles Dove, Mapmaker)
1894 - Pū'oina (Anonymous, Ka Nūpepa Kū'oko'a)

The earliest recorded Hawaiian form of the name is Pūwaina, used by an unreliable English mapmaker. The earliest form used by a Hawaiian source was Pu'uowaina, used again in 1894 by a mapmaker. Pūowaina was the form used most often in Hawaiian sources for the remainder of the century, used by an historian, a princess (Po'omaikelani), and the Hawaiian government offices. Pūoaina was used by a chanter (Kalaikuahulu) and Pū'oina was used in the Hawaiian Language newspaper. Puawai and Puawaina were put forth by the author of a Hawaiian dictionary (Andrews), as two variations of which he was obviously uncertain. Of all of the names listed above, only Pūowaina was used in multiple Hawaiian sources prior to 1900.

The ranking of these name options in order of their likelihood would be as follows:

Pu'uowaina - earliest printed form used by a Hawaiian source.

Puowaina - most frequent use in Hawaiian sources.

Puoaina - early use by Hawaiian source.

Pu'oina - relatively early use by Hawaiian source

Puawai

and

Puawaina - two variations by a dictionary author

Puwaina - collected from map, earliest Hawaiian form of name used in print

Pu'uowaina - collected from a commercial map

Of these pre-1900 variations of the name, those four used by Hawaiian sources appear to be the most certain and reliable. A question remains though, as to whether the meaning contained in each variation relates to the site; a criterion which agrees with customary use of place names (pg. 7-10) and which is in accordance with the computer study of place names summarized in <u>Place Names of Hawai'i</u> (21:258). The relation of each name with the physical character of the site, the legendary account or the early history of the area is shown below.

Pu'uowaina - hill of placing; relates to historic temples Pūowaina - hill of placing; relates to historic temples Pūoaina - by the gloss suggested in its spelling, (coition), this form has no obvious relation to the material about the site  $P\bar{u}$ 'oina - superior hill; reference to historic kapu or to the physical presence of the site.

Pu'uowaina, Pūowaina and Pū'oina each give some reference to the background material reported in this paper. Pūoaina's suggested reference is outside of the available legendary, historical and physical context. Possibly some

historical occurance leading to this name has been ommitted from the record reported here, or a mispelling or misprinting occurred in the recording of the name. With only the single occurance of Pūoaina and with no other supporting information on the name it is impossible to further clarify the user's intentions or correctness.

Pu'uowaina and Pūowaina stand out as the two most plausible traditional forms of the four names used by Hawaiian sources in the 19th century. Pu'uowaina is the earliest form and Pūowaina is used most often. These two are variations on the same name; Pūowaina being a contracted form of Pu'uowaina which itself is a contracted form of Pu'uowaina which itself is a contracted form of Pu'uowaino (same meaning). Because the form Pu'uowaina only occurs once in pre-1900 Hawaiian sources, the relationship is unclear, but Pu'uowaina is either an older form or possibly an acceptable variation of the more common form, Pūowaina. Either way, the name may be considered to be contained within its contracted form. This relation supports their potential as traditional name forms by showing that the earliest and most common usage is of two forms of the same name.

This relation presents a case like that of Lē'ahi. In older records Lae'ahi is seen, but the name has been contracted in post-contact usage to its present common form, Lē'ahi. (21:126) The early use of Pu'uowaina, when compared with the common modern usage of Pūowaina indicates this same process at work.

The common early use of Pūowaina and its related form, Pu'uowaina, along with the relation of the name to the history of the area, leads to the conclusion that Pūowaina is the most acceptable of the many forms considered as traditional names for the area. Pūowaina became the most common Hawaiian name for the area to be used throughout the written historical record and has been adopted by the federal and state governments as the name of the crater and the road that circles it. (61)

Granting the spelling of the name as Pūowaina, modern folk etymologists have reconsidered the translation of the name, suggesting new meanings for the accepted spelling. Translating the "waina" as a Hawaiianized version of "wine", the result is Hill-of-wine, glossed as Wine-hill or Punchbowl. To verify this, attention is called to the common English name and to the presence of Don Marin's vineyard, planted in the 1820's on the plain below the crater. The distance between Pūowaina and the vineyard, located seaward of today's Foster Botanical Gardens, makes this suggestion unlikely but not impossible.

Taking folk etymology another step, Theodore Kelsey theorizes that the "wa" of Pūowaina is pronounced long, altering the meaning to Hill-of-roar-from-afar, a reference to the power of the ancient temples. Though this change would require a macron over the vowel of the affected syllable in today's orthography (Pūowāina), the change would have been invisible

in earlier orthographies which did not reflect the long vowel.

Folk etymology, by its nature, often produces suggestions that cannot easily be disproved, though they may lack supportive material. These two suggestions are modern, but are not likely to be the last ones offered. Puowaina may be the accepted form of the name, but the interpretation of that name will always be material for reinterpretation.

The conclusion of this paper is that Pūowaina is the traditional name of the area; a derivative of both Pu'uowaina and Pu'uowaiho'ana. This name and its interpretation have been accepted as a convention by the majority for a long enough period of time to be considered traditional.

## BIBLIOGRAPHY

#### BOOKS

- 1. Aloha (Hawaiian Digest). November, 1949.
- Andrews, Lorrin. A Dictionary of the Hawaiian Language. H.M. Whitney. Honolulu, 1865.
- 3. Bushnell, O.A. A Walk Through Old Honolulu. Honolulu n.d.: Kapa Associates Ltd.
- 4. Carlson, Doug. Hill of Sacrifice. Australia: Island Heritage Ltd., 1982.
- 5. Dibble, Sheldon. Ka Mooolelo o Hawaii (The Hawaiian History- a Hawaiian Language Text), Lahainaluna: Lahainaluna Press, 1838.
- 6. A Dictionary of Hawaiian Localities, Honolulu: Saturday Press, 1883.
- 7. Duncan, Arlene ed. All about Hawai'i / Thrum's Hawaiian Almanac. S.B. Printers. Honolulu 1974.
- 8. Ellis, William. Polynesian Researches, Hawaii. Charles Tuttle Co. Rutland, Vt. & Tokyo, 1970.
- 9. Emerson, Nathaniel B. Pele & Hiiaka, Rutland, Vt. & Tokyo 1979.
- 10. Fornander, Abraham. An Account of the Polynesian Race, 3 Volumes, Rutland, Vt. & Tokyo: Charles E. Tuttle Co., 1973.
- 11. Fornader, Abraham. Hawaiian Antiquities and Folklore, New York: Kraus Reprint Co., 1974.
- 12. Gast, Ross H., and Agnes Conrad. Don Francisco De Paula Marin, Honolulu: University of Hawai'i Press, 1973.
- 13. Handy, E.S.C. The Hawaiian Planter, Vol. 1, New York: Krauss Reprint Co., 1971.
- 14. Jarves, James Jackson. A History of the Hawaiian or Sandwich Islands, Boston: Tappan and Dennet, 1843.

- 15. Johnson, Rubellite Kawena. Kūkini 'Āha'ilono, Honolulu, Hawai'i: Topgallant Pub. Co., 1976.
- 16. Kamakau, S.M. Ruling Chiefs, Honolulu, Hawai'i: Kamehameha Schools Press, 1961.
- 17. Kuydendall, R.S. The Hawaiian Kingdom, Honolulu, Hawaii: University of Hawai'i Press, 1980.
  Volume I.
- 18. McAllister, Gilbert J. Archaeology of O'ahu, Honolulu, Hawai'i: Bernice P. Bishop Museum Bulletin 104, 1933.
- 19. McGuire, James W.L. He Mo'olelo Põkole o ka Huaka'ihele a ka Mõ'iwahine Kapi'olani i Enelani i ka Makahiki 1887, Honolulu, Hawai'i: Collegiate Press, 1938.
- 20. Puku'i, Mary Kawena, and Samuel Elbert. Hawaiian Dictionary, Hawaiian-English, English-Hawaiian, Honolulu, Hawai'i: University of Hawai'i Press, 1979.
- 21. Puku'i, Mary Kawena, Samuel Elbert, and Esther T. Mo'okini. Place Names of Hawai'i. Honolulu, Hawai'i: University of Hawai'i Press, 1976.
- 22. Puku'i, Mary Kawena, and Alfons Korn. The Echo of Our Song. Honolulu, Hawai'i: University of Hawai'i Press, 1979.
- 23. Rice, William Hyde. Hawaiian Legends. New York: Krauss Reprint Co., 1974.
- 24. Scott, Edward B. The Saga of the Sandwich Islands.
  Lake Tahoe, Nevada: Sierra-Tahoe Publishing Co.,
  1968.
- 25. Singletry, Milly. Punchbowl, National Memorial Cemetery of the Pacific. Honolulu, Hawai'i, M.F.S., 1977.
- Sterling, Elspeth P. and Catherine C. Summers. Sites of O'ahu, B.P. Bishop Museum, Honolulu, 1983.
- 27. Thrum, Thomas G. Hawaiian Almanac and Annual for 1901. Honolulu, Hawai'i: Hawaiian Gazette Co. Print, 1900.

- 28. Thrum, Thomas G. Hawaiian Almanac and Annual for 1915. Honolulu, Hawai'i: Thomas G. Thrum Pub., 1914.
- 29. Thrum, Thomas G. Hawaiian Almanac and Annual for 1918., Honolulu, Hawai'i: Thos. G. Thrum Publisher, 1917.
- 30. Thrum, Thomas G. Hawaiian Place Names (Supplement in Andrews-Parker Dictionary), Honolulu, Hawai'i: Board of Commissioners of Public Archives Special Pub. No., 1922, p. 668.
- 31. Veteran's Administration. The National Memorial Cemetery of the Pacific. Honolulu, Hawai'i. V.A. Pamplet 40-1, August 1, 1976.
- 32. Westervelt, William D. Hawaiian Legends of Old Honolulu. Rutland, Vt. and Tokyo, Japan: Charles E. Tuttle Co., 1979.

### PERIODICALS

- 33. Ka Hae Hawai<sup>t</sup>i. June 19, 1856 (as published in Kūkini 'Āha'ilono 1976 Topgallant Pub.)
- 34. The Hawaiian Historical Society: Eighteenth Annual Report (1910) (Robert Grieve, 1911).
- 35. The Hawaiian Spectator 1838 Vol. I., #2.
- 36. The Hawaiian Spectator 1839 Vol. II, #2.
- 37. Honolulu Advertiser (May 28, 1979). Pierre Bowman.
- 38. Honolulu Advertiser/Star-Bulletin (Sunday Joint Edition) (May 26, 1963).
- 39. Honolulu Star-Bulletin. Taylor, Clarice 9/2/49.
- 40. Honolulu Star-Bulletin. Taylor, Clarice 9/7/49.
- 41. Honolulu Star-Bulletin. Taylor, Clarice. 9/17/49.

- 42. Honolulu Star-Bulletin. Stasack, Ed. 6/6/68.
- 43. Ka Nūpepa Kū'oko'a. 1865, Vol. 4, No. 29.
- 44. Ka Nupepa Ku'oko'a. 1894, Vol. 33, No. 44.
- 45. Ka Nūpepa Kū'oko'a. 5/23/1902.
- 46. Pacific Commercial Advertiser, Nakuina, Emma, et. al. 6/29/1909.
- 47. Paradise of the Pacific. Taylor, Emma Ahu'ena. 2/36.
- 48. Paradise of the Pacific. Hogue, Charles E. 10/49.
- 49. Paradise of the Pacific. Brown, Granville. 9/41.

#### REPORTS

- 50. Interior Department Memos, 12/2/1881.
- 51. Interior Department Memos, 10/1/1884.
- 52. Interior Department Memos, 11/1884.
- 53. Privy Council Record, Vol. 6.
- 54. Punchbowl Historic Report of Hawai'i Registor of Historic Places, compiled by L. Miller, 1975.
- 55. U.S. Board of Geographic Names Gazetteer #24 Hawaiian Islands, 1956.

#### MANUSCRIPTS

- 56. Bowen, Alice Spalding. History of Punchbowl, typescript for KAIM Radio, 5/23/1965.
- 57. Kala'ikuahulu, "Battle of Nu'uanu" (chant), (He Buke 'Oiai'o Kū'auhau Ali'i,) p. 131, copied by G.M. Keola (12/15/1880).
- 58. Ka Puke Mo'olelo o ka Papa Kū'auhau Ali'i o Hawai'i. Kapo'oloku - President, 1882 - 1883.
- 59. McKinzie, Edith (compiled by), "The Battle of Nu'uanu".

## LAWS AND ORDINANCES

- 60. City and County of Honolulu, revised ordinance of the Article 22-8.3.
- 61. State Dept. of Land Utilization, Resolution #315, adopted 7/14/1936.

### MAPS

- 62. 1778 1843 composite. Wild, James. Map #454.

  > 1858 Makelena J.W. for Minufer of Tutor L. Komehamika
- 63. 1887. Alexander, W.D. and government map office staff.
- 64. 1892. Dove, Charles E., Husted's Hawaiian Directory.
- 65. 1897. Monsarrat, M.D.
- 66. 11/10/1915. Ex. (C.P.L.)- State Archives Blueprint for National Guard Use of Crater.
- 67. 1966. U.S. Dept of Commerce, Bureau of the Census, Geography Division. Map Sheet M-25, Map 6 of 27.

## INTERVIEWS BY PUAKEA NOGELMEIER

- 68. 12/6/1984. Veteran's Administration Office, update of 1976 brochure, V.A. Brochure 40-1.
- 69. 12/4/1984. Hubbard, Louis, Instructor, Kamehameha Schools.
- 70. 12/1/84. Nahinu, Leimomi, resident of Kalawahine, Honolulu, Hawai'i.
- 71. 6/83. Kelsey, Theodore. Hawaiian Language Scholar.
- 72. 6/8/80. Kelsey, Theodore. Hawaiian Language Scholar.
- 73. 6/8/76. Mahi'ai, Samuel. Hawaiian born at Papakōlea.