

The Stones Can Speak

GILL 'EWA LANDS LLC



AN INTERPRETIVE GUIDE TO "THE PĀ" AT PĀLEHUA

Welcome to The Pā

The word “pā” means “fence,” “wall,” or “enclosure.”

These words objectively describe the walled feature at Pālehua, 510 meters (1,600 feet) above sea level in the southern end of the Wai‘anae Mountains on O‘ahu.

Although there are still many questions about this special place, much has recently been learned from studying it.

The stones are starting to “speak” to us of their history.



WHAT DO YOU SEE?

Walls

The Pā is nearly square, with four walls, each about 40 meters long. The walls have four gaps: in the middle of the mauka (northeast) wall, in the middle of the makai (southwest) wall, in the eastern corner and in the western corner. There are wooden posts by the mauka gap and a group of stones extends from the makai gap.

It is known that cattle were grazed in this area in the late 1800s, and that pineapple and perhaps other crops were grown nearby.

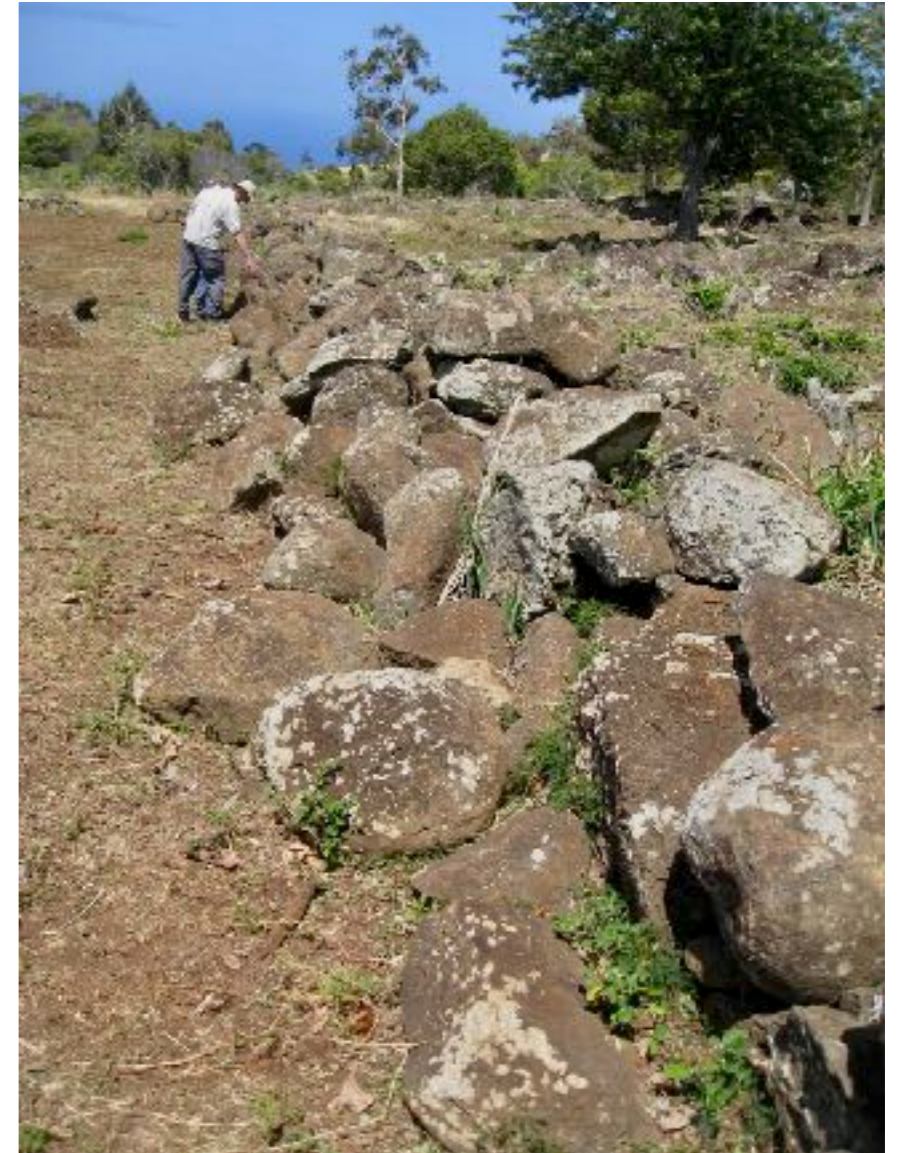
Look carefully at the walls. Can you see a row of flat, vertical surfaces, showing how the rocks were originally lined up? Many rocks appear to have been pushed or

knocked down on the inside and outside the original wall. Part of the northwest wall has been rebuilt recently and gives an idea of what the wall might have originally looked like. It was probably about one meter tall.

Do you think all the gaps in the walls were here originally?

What might the wooden posts have been used for?

Why might the rocks have been pushed off the walls?



WHAT ELSE DO YOU SEE?

Stones

There's a group of large stones near the center of the Pā. It is not known for sure if these stones were part of the original structure, but they were moved into the Pā by a bulldozer trying to control a wildfire during the 1980s.

Do you see the tops of stones poking out of the soil near the western corner of the Pā and inside of the northwestern wall? Some of them are part of an area paved with small stones near the west entrance. There are also larger rocks protruding from the ground, some with unusual shapes. It's not known if these larger rocks were here when the Native Hawaiians used the Pā or—if so—if they were used for any purpose.

Some stones, including one on the northwestern wall which is now horizontal, may have originally been upright.

Why might one corner of the Pā be paved?

Do you think there might have been structures such as hale in the Pā?

Location

Can you describe where the Pā is located by looking at the nearby land? What geographic features can you see when you are standing inside the Pā?

Can you imagine a reason why the Pā was built in this low place rather than on a ridge?

On the low ridge to the northwest of the Pā is another site which features a line of vertical, flat-surfaced standing stones set between huge boulders. Although they resemble marae (shrine) structures found throughout other parts of Polynesia, they are not very common in Hawaii.

What kind of uses come to mind for an enclosure in a low place?

What kind of uses come to mind for an enclosure in a high place, such as on top of a ridge?

What might the area with the standing stones have been used for?

What might its relationship with the Pā have been?

SOME DISCOVERIES

Several archaeological studies have been conducted at the Pā and the nearby standing stones area. While many questions remain, here are a few interesting facts.



While digging under the Pā walls and the standing stones, small bits of charcoal were excavated.

Using radiocarbon dating, scientists can tell how long ago the wood was part of a live tree or shrub. Assuming that the wood cannot be younger than the Pā that sits on top of it, the year when the Pā was built can then be estimated.

Scientists can even identify the trees and shrubs which were burned, such as niu (coconut), koa, 'a'ali'i, hō'awa, 'akoko, and 'āweoweo.

Carbon dating indicates that the Pā and the nearby standing stones are both about 400 years old and that the Pā is the older of the two. The Pā was most likely built between AD 1500



The flat-faced "standing stones" are in a straight line.

and AD1648, and probably was used most intensively in the 1600s.

The standing stones appear to have been built no earlier than AD 1650 and to not have been used after AD 1811.

What was happening in Hawai'i's history when these structures were used?

Burning

In addition to the bits of charcoal which were used for carbon dating, a thin layer of charcoal was found near the bottom of the standing stones and also by the western entrance to the Pā.

This charcoal layer was under several inches of dirt, in addition to being under the stones. This is a good indication that the charcoal was there before the stones were put in place.

Could this charcoal layer mean that the Native Hawaiians who built the Pā first cleared the land by burning the vegetation?

Could the charcoal layer have come from burning religious offerings, or from household cooking? Why or why not?

Can you think of other reasons?

Coral, Metal and other Finds

Small bits of coral were discovered in the ground, especially within the shallow paved area in the western corner. A larger piece, about the size of an adult's palm, was also found there.

Pieces of metal, including old wire and a nail, were discovered near two of the walls under layers of eroded dirt. Broken pieces of ceramics were also excavated.

Right outside the Pā, a few interesting objects were discovered, including a small, stone adze blade and an 'ulu maika (bowling) stone typically used in Makahiki games.

Why would coral have been brought to the Pā?

Do the buried bits of metal hint at a possible use of the Pā?

Besides 'ulu maika, what other games were played during the Makahiki season? Could evidence of those games be preserved well enough so that they could be discovered today?

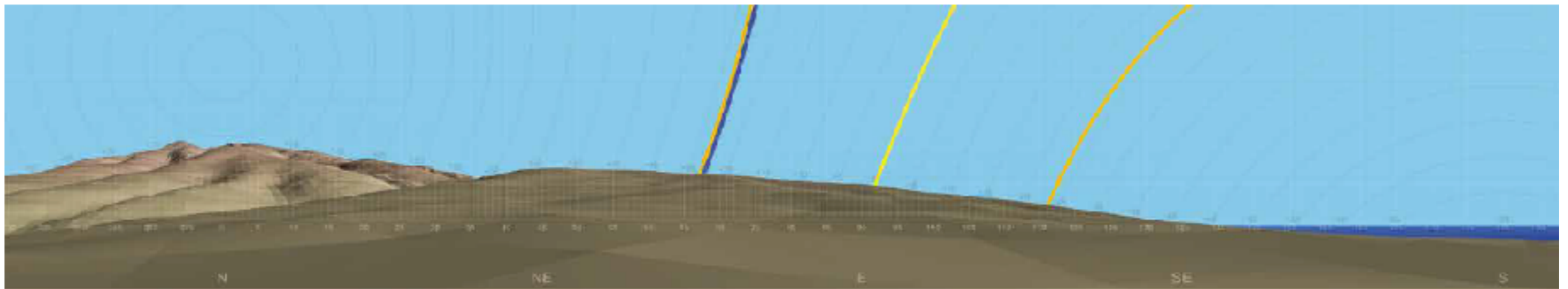
Astronomy

Look mauka along the southeastern wall of the Pā; it is oriented directly toward where Makali'i (the Pleiades) would become visible as they rose immediately after sunset from around AD 1550 to AD 1720. The southeastern wall also points to where the sun would have risen at the summer solstice.

The rise of Makali'i is one of the most significant events in the Hawaiian calendar because it signals the beginning of the Makahiki season—the four winter months of peace, planting, competitive games and tax collection.

Today, if you look makai along the northwestern wall at sunset, it seems to point to where the sun sets into the ocean on the winter solstice, but in the 1600s the sun actually set between 2 and 5 solar diameters away from where it sets now. The stars, including our sun, are not in the same apparent location today as they were when the Pā was being used because the earth wobbles on its axis.

Do you think the Pā has astronomical significance? If so, what might the Pā have been used for?



This graphic shows the distant horizon if you look east-northeast from the Pā and all the trees were removed. The darker yellow lines are where the sun rose at the solstices in AD 1600. The lighter yellow line indicates where the sun would have risen at the equinoxes. The blue line shows the path of the rising Pleiades; it is right next to the line indicating the June solstice.

The name “Pālehua”

As mentioned at the beginning, “Pā” means “enclosure,” and certainly this walled structure can be described as a pā. Today, much of this general area of the Waiʻanae Mountains is known as Pālehua.

Was this square of rock walls itself known as “Pālehua” to the Native Hawaiians who built it? Cultural historians have looked in moʻolelo (stories and legends), in oli (chants), in ʻolelo noʻeau (Hawaiian language newspapers) and in old maps, but have found no mention of the word “Pālehua” before 1901.

However, a camp built by the von Holt family in 1897 farther up the mountain was specifically called “Pā Lehua.” Early maps show the exact location of Pā Lehua Camp. A descendant of the von Holts still owns the cabin there. Possibly the entire area became known as “Pālehua” after Pālehua Road was built, providing access to the camp and upper reaches of the mountain.

No old maps showed a name for this square of stones, nor has any mention of it been found in Hawaiian oral history.

For More Information

The first two papers below discuss the archaeological work at the Pā in more detail and are posted at <https://www.gill-ewa-lands.org/archaeology>.

Gill, Timothy M., P.V. Kirch, C. Ruggles and A. Baer, 2015. Ideology, Ceremony, and Calendar in Pre-Contact Hawaiʻi: Astronomical Alignment of a Stone Enclosure on Oʻahu Suggests Ceremonial Use During the Makahiki Season. *The Journal of the Polynesian Society* 124 (3): 243-368.

Swift, Jillian A., P.V. Kirch, A. Baer, J. Huebert, and T.M. Gill, 2019. Late Pre-Contact Construction and Use of an ‘Archaic’ Shrine at the Palehua Complex (Honouliuli District, Oʻahu Island, Hawaiʻi). *Journal of Pacific Archaeology* 10 (2)

Merrin, Lilia, M. Wheeler, K.J. Luga, K.L. Uyeoka and K. Kikiloi, 2020. *Pālehua Ethnohistoric Study, Honouliuli Ahupuaʻa, ʻEwa Moku, Oʻahu*. Prepared by Nohopapa Hawaii for Gill ʻEwa Lands, LLC.

Gill ʻEwa Lands LLC (GEL)

GEL owns the land upon which the Pā was constructed. More information on GEL’s operations and mission is available at www.gill-ewa-lands.org. GEL continues to seek new knowledge as it cares for this special place.