

OF SEA AND STONE



Early Hawaiians were deeply connected to the 'āina (land) and the natural world. With an intimate understanding of the tides, currents, moon, sun, winds and rains, Hawaiians developed one of the most sophisticated forms of aquaculture in the ancient world: coastal fishponds called loko i'a.

Loko i'a were models of ingenuity and sustainability. Designed to work in harmony

with the sea, they reinforced a fundamental principle of ancient life in Hawai'i: when we take care of the 'āina, the 'āina takes care of us.

Loko i'a functioned as a source of food, trade and wealth. Larger ponds provided a ready supply of fresh seafood for the ali'i (chiefs) and the royal court. Smaller ponds provided 'ohana (families) with shrimp, fishing bait, and limu (seaweed). In areas where there was an abundance of loko i'a, the lands were praised as 'āina momona (fat or sweet lands).

There are six types of loko i'a. These ponds vary in size, shape, and proximity to the ocean. Most loko i'a are distinguished by their kuapā (wall) and mākāhā (sluice gate). The kuapā formed a barrier to sea, and the mākāhā let small fish enter the pond while preventing larger ones from escaping.

Today, 488 ancient fishponds have been identified. It's not known when the earliest

were constructed, but some kuapā can be dated back to the 1400s. Most of these loko i'a have long since disappeared. They were filled in, dismantled, or overgrown after years of neglect.

For the loko i'a that are intact, there are communities and organizations working to mālama them. They are wahi pana (storied places), a traditional classification for sites whose beauty and importance were so widely known that no visitor could claim to have seen an island without visiting them. Mahalo to Hui Mālama Loko I'a and those involved with restoring the integrity and productivity of Hawai'i's ancient "refrigerators."

Young Brothers, Limited and Foss Hawai'i are pleased to feature a selection of loko i'a from six different islands in our 2017 calendar. Some are well-known, others are hidden gems, and all rely on a clean and healthy ocean. Join us as we holoholo (travel) to 12 of Hawai'i's most unique and important cultural resources!



KAUA'I

NŌMILU (MAY)

Located in the ahupua'a of Kalāheo on the south side of Kaua'i, Nōmilu is a 20-acre pond that reaches depths of more than 50 feet. The name Nōmilu (seepage whirls) refers to the way that the water seeps away from the pond in eddies and whirlpools. It's a place that was famed for its bounty and array of flavorful fish. It sits in a dormant lua pele (volcanic crater) where Pele first dug into the earth to find a suitable home. While Pele had hoped to keep her fire safe in the crater, legend has it that her older sister, Nāmakaokaha'i, quickly filled it with ocean water and forced Pele to find a new home on O'ahu. For 100 years, the pond has been privately owned and maintained by the 'ohana of the late Phillip and Hisako Palama.

ON THE COVER: HE'EIA, O'AHU

PREVIOUS PAGE: KAHINAPŌHAKU, MOLOKA'I

THIS PAGE: WAIA'ŌPAE, LĀNA'I

MAUI

KŌ'IE'IE (JANUARY)

Built more than 400 years ago, Kō'ie'ie (rapid current) is a 4-acre loko kuapā (walled pond) situated in the ahupua'a of Ka'ono'ulu in South Maui. To build this loko i'a's wall, the konohiki (headman) summoned people from the entire ahupua'a to help. They formed one long chain to transport the heavy rocks from the upland riverbeds to the sea. Once at the fishpond site, the rocks were strategically interlocked to form the kuapā, and mākāhā were positioned to trap large fish within the loko. In 1996, Kō'ie'ie was listed on the State and National Registers of Historic Places due to the many historical and cultural contributions made there, including Kamehameha the Great's reconstruction of the wall in the late-1700s. Today, the fishpond is stewarded by 'Ao'ao O Nā Loko I'a O Maui (Association of the Fishponds of Maui).

LĀNA'I

WAIA'ŌPAE (JUNE)

Waia'ōpae lies on the east shore of Lāna'i, in the ahupua'a of Pālawai. Eight-hundred-year-old Waia'ōpae is one of five documented loko i'a on the island, three of which are found in Pālawai. A 9-acre loko kuapā, this wahi pana (storied place) is being restored by Lāna'i Culture & Heritage Center, in partnership with the landowner, Pūlama Lāna'i. In 2015, the Lāna'i Culture & Heritage Center began work to repair the walls, remove sedimentation from the middle of the pond, and restore native landscape.



MOLOKA'I

ALI'I (NOVEMBER)

Ali'i fishpond is a loko kuapā on the island of Moloka'i. Located in the ahupua'a of Makakupa'ia, Ali'i is a 27-acre fishpond known for its mullet and awa fish. Ali'i is made mainly of natural coral and surrounded by lava rock walls. This allows seawater to flow in and out with the tides promoting the growth of algae and other nutrients within the pond. With a 35-year lease from the Department of Hawaiian Homes Lands, Ka Honua Momona has been diligently removing aggressive and non-native plant species, such as mangrove and gorilla ogo, which will smother the pond if left unchecked. Every year, approximately 10,000 hours of volunteer service contribute to these restoration efforts.

KAHINAPŌHAKU (JULY)

While not the biggest fishpond in this year's tide calendar, Kahinapōhaku is certainly one of the most visible. The four-acre fishpond is located at the 19-and-a-half mile marker on the East End of Moloka'i. Literally translated, Kahinapōhaku means Hina's Rock. Hina is regarded as the mother of Moloka'i. The pond is cared for by the Kauka Naki 'ohana and the hands of Leimana Raymond Naki who has been perpetuating the mo'olelo of this place through educational workshops and restoring Kahinapōhaku's broken walls for over 15 years.

KEAWANUI (MARCH)

Keawanui (abundant awa), a 50-acre loko kuapā, is named for the plentiful awa (milkfish) that once thrived in the surrounding area. It sits on property owned by Kamehameha Schools and is maintained by Hui o Kuapā. In 1989, Hui o Kuapā's executive director, Walter Ritte, began the earliest efforts to restore traditional fishponds. His work has been instrumental in raising awareness for Hawai'i's food security. As one of the largest enclosed and fully operational fishponds in the state, Keawanui demonstrates how traditional Hawaiian resource management practices sustained a healthy population for 2,000 years prior to western contact.

O'AHU

HE'EIA (AUGUST)

Featured on the cover of this calendar is He'eia fishpond, an 88-acre loko kuapā in Kāne'ohe Bay that is bordered by He'eia State Park. Belonging to Kamehameha Schools, He'eia Fishpond was said to be a favorite spot of Princess Bernice Pauahi Bishop. He'eia's kuapā is unique in that it surrounds the fishpond in a complete circle, measuring 1.3 miles. In 1965, flooding severely damaged the wall and created a 200-foot-long break that was finally closed on December 12, 2015. Since 2001, Paepae o He'eia has served as the fishpond's kia'i (guardian). The group has shepherded countless resources and volunteer hours towards the restoration and mālama of this ancient treasure.



CLOCKWISE FROM TOP:
NOMILU, KAUA'I;
WAIA'ŌPAE, LĀNA'I;
KAHINAPŌHAKU, MOLOKA'I;
HE'EIA, O'AHU;
KEAWANUI, MOLOKA'I

HUILUA (OCTOBER)

When driving along the windward coast of O'ahu, you'll pass Huilua, a 7-acre pond in the ahupua'a of Kahana. Huilua (twice joined) probably refers to the two mākāhā that linked the pond to Kahana Stream. There's an old mo'olelo (legend) about Huilua, and how the fish once disappeared from its waters. In a dream, the keeper of the fishpond was told not to remove any fish, except for āholehole, for five years. He shared this information with his young nephew, Pua Ha'aheo, explaining that the pond needed time to replenish its stock. When the fish vanished one day without a trace, the pondkeeper knew that his orders had been ignored. Having learned an important lesson about conservation, the young boy would eventually grow up to be the konohiki (headman) of Huilua.

BELOW: KAHOUNA, O'AHU



KAHOUNA (FEBRUARY)

Along Kāne'ōhe Bay, in the ahupua'a of Kahalu'u, lies Kahouana, a 37-acre loko kuapā. Like its larger counterparts at Mōli'i and He'eia, Kahouana is private property. This fishpond was in use until about 1960 and rebuilt by the landowners in 1965 when 100 feet of its wall was damaged due to flooding. In 1973, Kahouana was added to the National Register of Historic Places after community members feared it would be lost to development. The pond features a semicircle seawall, about 1,200 feet long, and is stewarded by Kahouana Fish Farms.

LOKO EA (DECEMBER)

Just past the Rainbow Bridge in historic Hale'iwa town is Loko Ea, a 400-year old loko pu'uone (pond near the shore). One of two existing fishponds in the moku (district) of Waialua, Loko Ea begins at an upwelling of spring water near Kawailoa. The second fishpond, called 'Uko'a, is fed by the same spring, and together, they make up the third largest wetland on the island of O'ahu. These two distinct loko i'a are home to Laniwahine, the ponds' guardian who takes the form of both a woman and a mo'o (lizard). Loko Ea is famous for the fish that once overflowed from its waters. It was savored by many, including Queen Lili'uokalani. Loko Ea is being restored with the support of the Mālama Loko Ea Foundation and Kamehameha Schools, the landowner.

HAWAI'I ISLAND

KALĀHUIPUA'A (SEPTEMBER)

At the Mauna Lani Resort on Hawai'i Island sits Kalāhuipua'a, a name that reflects the sacredness of the fish that Native Hawaiians called pua'a kai (sea pigs). They include awa, 'ama'ama, and āholehole and are prevalent in the area. Today, one can easily view the many varieties of marine life within these ancient royal fishponds. The Mauna Lani Resort Association has kuleana for maintaining Kalāhuipua'a as a cultural site and educational center and restoring its kuapā and mākāhā.

KALOKO (APRIL)

In the ahupua'a of Kaloko on the island of Hawai'i is a 12-acre loko kuapā noted for having the widest fishpond wall in Hawai'i. Kaloko's wall is five times larger than the average fishpond wall. The main kuapā stretches across the mouth of Kaloko Bay and contains three secondary walls that form smaller, interior ponds. In 1978, stewardship of the fishponds and surrounding cultural landscapes came under the National Park Service and is preserved under federal law. There are two other ponds at the park, 'Ai'ōpio and 'Aimakapā. A stone seawall juts out from the shore to form the protected body of water called 'Ai'ōpio. Because it lacks a sluice gate, 'Ai'ōpio is considered a fishtrap rather than a fishpond. 'Aimakapā is a loko pu'uone that formed behind a barrier beach.