

# Kō'ie'ie Loko I'a

Fronting the headquarters site of the Hawaiian Islands Humpback Whale National Marine Sanctuary in Kalepolepo, Kihei, Maui is an ancient Hawaiian fishpond. Commonly known as Kalepolepo fishpond, the ancient name given to this pond is Kō'ie'ie Loko I'a.

Kō'ie'ie, meaning "rapid current," is the best preserved loko kuapā along the South Maui shoreline and was traditionally reserved for the ali'i.

It is unknown when it was originally constructed but archaeologists estimate that it may have been built between 1400-1500 A.D. Legend suggests that the menhune built the pond within one night.

Historical accounts note repairs to the fishpond took place during the times of several chiefs including 'Umi-a-Liloa, high chief of the island of Hawai'i in the late 1500's, Kekaulike, chief of Maui during the 1700's and Kamehameha I during the early 1800's. Later, in the 1840's, Governor Ho'apili had a new Maui penal colony labor force from the nearby island of Kaho'olawe restore the fishpond.

Sometime during these times of repair, the ancient name of Kō'ie'ie was said to have changed to Kalepolepo. As thousands of people lined up to pass stones from the uplands to the ocean, clouds of dust were suspended into the air giving the name Kalepolepo, meaning "the dirt".

Throughout its time, Kō'ie'ie Loko I'a and Kalepolepo was a popular area for the ali'i. Kalepolepo was once the residence of Hewahewa, the most powerful kahuna of Kamehameha I. Kamehameha III, IV and V were also visitors to Kalepolepo in the 1800's.

Today, the area of Kalepolepo is a bustling area with condominiums and parks built along its shoreline. The vibrant life of Kō'ie'ie Loko I'a has withstood the test of time. Through natural disasters and neglect, the kuapā of Kō'ie'ie still stands but has gradually diminished into the sand.

To protect the future of the fishpond, the local community formed the non-profit organization, 'Ao'ao O Nā Loko I'a O Maui (Association of the Fishponds of Maui) in 1996 to preserve, restore and revitalize Kō'ie'ie Loko I'a for future generations to enjoy. The organization has partnered with and is partially supported by the Hawaiian Islands Humpback Whale National Marine Sanctuary.

If you are interested in helping with the revitalization efforts of Kō'ie'ie Loko I'a, please visit the Sanctuary headquarters in Kihei at 726 South Kihei Road.

## Fishponds of Hawai'i





## What are the types of loko i'a?

Hawai'i has four types of fishponds, which took advantage of landscape and gravity to transport water from the mountains to the sea.

**1** The *loko i'a kalo* utilizes water flowing throughout taro patches to raise fish. This type of *loko i'a* was mainly used by the *maka'ainana*.

**3** A *loko pu'uone* is a fishpond isolated by a *pu'uone* running parallel to the sea. It is predominantly salt water with a trickle of freshwater entering through springs or streams.

## What is a loko i'a?

A *loko i'a* is a fishpond built and used by ancient Hawaiians to harvest fish and other resources. It's an awesome example of the engineering expertise of ancient Hawaiians as many of the *loko i'a*, which were built over 500 years ago, still exist today. The *loko i'a* symbolized a prosperous *'ahupua'a* for it took thousands of people to build a pond and only during times of peace could such a task be done.

**2** A *loko wai* is a natural freshwater inland pond that was excavated by hand and irrigated through an *'auwai*. Some *loko wai* have brackish water as some seawater flows upstream with the tides.

**4** The *loko kuapā* is a fishpond with a *kuapā* and one or two *mākāhā*. The water within the pond is brackish as the seawater mixes with fresh water springs or nearby streams. This type of *loko i'a* was mainly reserved for the *ali'i* class.

## The Unique Loko Kuapā -

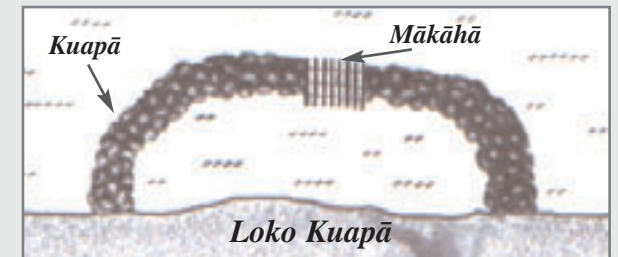
Different types of *loko i'a* are found throughout Polynesia but Hawaiians enhanced the design of a common fishtrap and created the *loko kuapā*, a rock wall with sluice gates.

The *kuapā*, made of lava rocks, coral and coralline algae was designed to allow water to permeate through the wall and circulate in the pond.

Rocks were gathered from river beds and lava rock fields in the uplands and then transported by a human chain for miles at a time towards the ocean. The rocks were then laid strategically with the larger rocks forming the foundation followed by smaller rocks and rubble filling in the gaps to lock the wall in place. The height of the *kuapā* was taller than the year's highest tide which prevented fish from escaping.

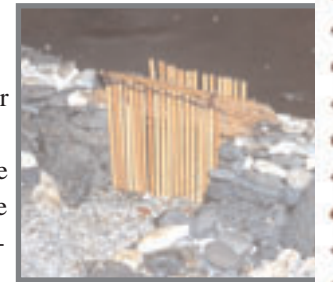
The *mākāhā* defines the uniqueness of the *loko kuapā*. It is the major characteristic of all fishponds as it is the mechanism that controls what enters and exits the fishpond. Traditionally, the gate was made of woods and bound by cordage leaving half inch gaps between pieces. The result was a vertical slotted gate held stationary by stones. Today, there are many variations of *mākāhā* including those that are moveable.

Many species of fish flourished in the *loko kuapā*. The most common fish were the *awa*, *'ama'ama* and the *āholehole*.



## How does the loko kuapā work?

The *mākāhā* of the *loko kuapā* was a key element to its design. The *pua* would be drawn into the pond by the brackish water and fed on an abundant supply of algae, plankton and seaweed. The *pua* would be small enough to fit through the slits of the *mākāhā*. As they fed on the pond's vegetation, they would eventually grow too large to fit through the gate and would be trapped. The *kia'i loko* would be able to harvest fish easily when requested by the *ali'i*.



*ali'i* - royalty  
*āholehole* - flagtail  
*'ahupua'a* - land division extending from the uplands to the sea

*'ama'ama* - mullet  
*'auwai* - ditch  
*awa* - milkfish  
*kahuna* - priest

*kia'i loko* - guard of the fishpond  
*kuapā* - rock wall  
*maka'ainana* - commoner class  
*mākāhā* - sluice gate

*menehune* - legendary people with supernatural attributes  
*pua* - young fish  
*pu'uone* - sand dune or heap of dirt