

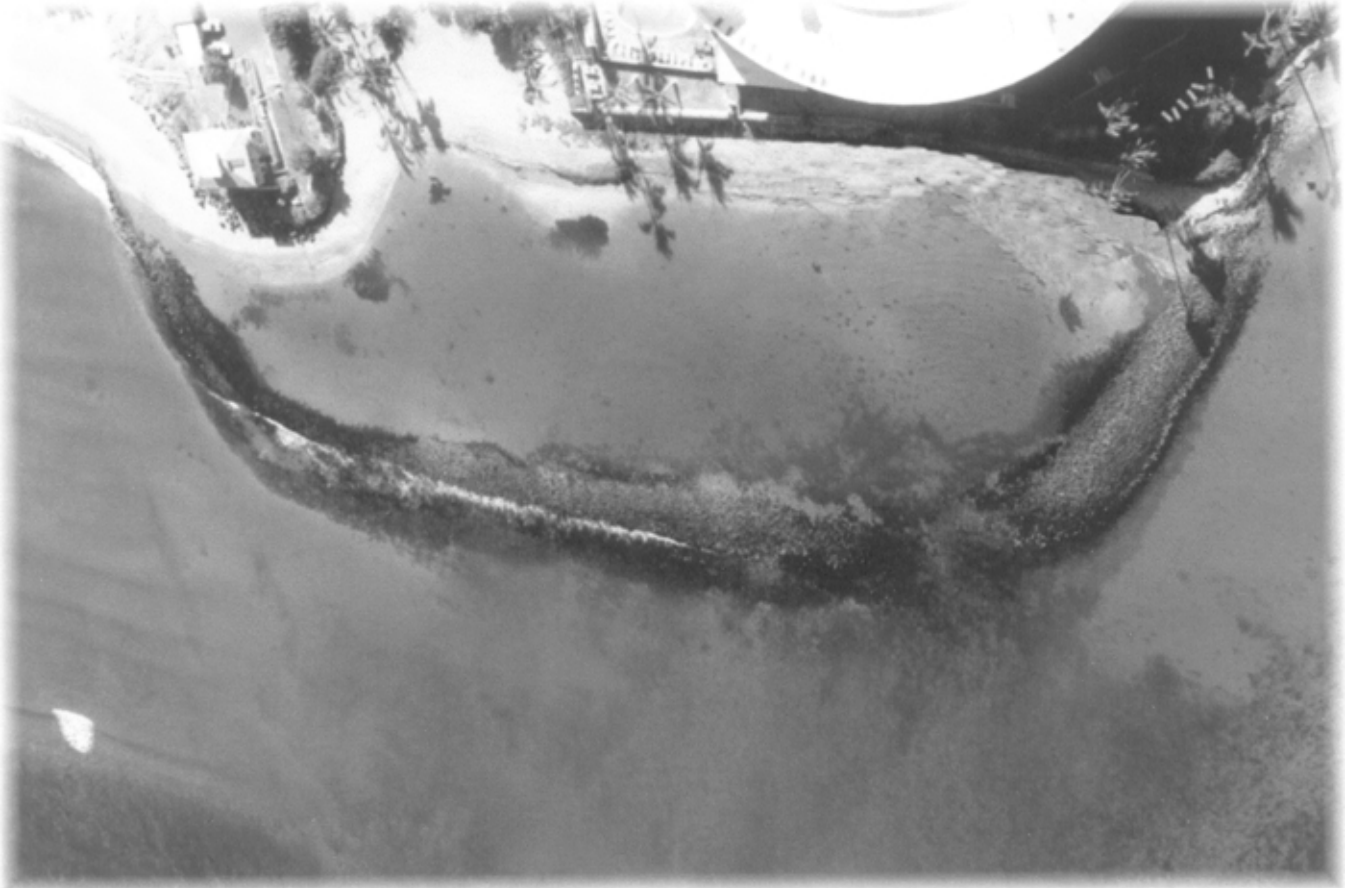
Fun with Fishponds



An activity book for keiki of all ages.

By 'Ao'ao O Nā Loko I'a O Maui
Illustrations by "Braddah Nick"

Kō'ie'ie Loko I'a



'Ao'ao O Nā Loko I'a O Maui (Association of the Fishponds of Maui) is dedicated to revitalizing Kō'ie'ie Loko I'a, one of the last in-tact native Hawaiian loko i'a in Maui, Hawai'i. Our non-profit organization strives to pass on the cultural value of the area and promote responsible stewardship toward this lasting treasure.

'Ao'ao O Nā Loko I'a O Maui's Mission

We value the importance of traditional Hawaiian fishponds. We believe in revitalizing and preserving Kō'ie'ie Loko I'a for future generations to enjoy its historical, cultural, archaeological, educational and recreational purposes.

Have fun exploring the fishponds of Hawai'i!

If you need a little help with the Hawaiian vocabulary, a glossary is located on page 8.

Kawika and Kamalu Holoholo through an Ahupua‘a

One day, Kawika and his cousin Kamalu decided to holoholo and explore an ahupua‘a from the mountain to the sea. They began in the ma uka region where they first came across a loko i‘a kalo, a pond where fish and kalo were raised. As Kamalu stared into the loko, he noticed something odd and asked, “Kawika why are āholehole swimming in the loko i‘a kalo? These fish live in the ocean.” Kawika giggled and explained, “Hawaiians were very akamai. They knew the āholehole, awa and ‘ama‘ama could survive in freshwater when they were young. These fish helped keep the loko clean by eating all the algae.” They watched the fish swim around the kalo for a few minutes then continued on their journey.

The sun was rising high in the sky and Kawika and Kamalu were getting hot. As they walked down the ahupua‘a, Kamalu saw a river nearby. They followed it until they saw an ‘auwai which channeled water into a large loko wai. The two boys played in the crisp cool freshwater pond. Kamalu could see through the clear water and gazed at the small ‘o‘opu and ‘opae swimming about. Seeing a challenge, they both attempted to catch the ‘o‘opu but auē! The boys were too slow and the ‘o‘opu got away! With a long walk ahead of them, they decided to hele on and investigate the ma kai area of the ahupua‘a.

Soon, they were near the ocean. Here, they stumbled upon a loko pu‘uone. Feeling a little thirsty, Kamalu took a sip of the water. “Auē Kawika! This water is salty!” Kawika laughed at his curious cousin. “Kamalu, this loko pu‘uone is near the moana and the salt water mixes in with the fresh water making wai kai or brackish water.” Kamalu looked with amazement and saw a large variety of i‘a swimming about including the awa, ‘o‘opu, āholehole, weke and ‘opae. “Kawika, staring at all the i‘a is making me hungry. Can we eat soon?” Kawika replied, “‘Ae Kamalu, hiki nō! Let’s hele on to the kai and see what we can find there.”

Kamalu couldn’t wait to eat. He could hear his ‘opū growling. When they arrived at the ma kai area of the ahupua‘a, they found some limu along the shore. Kawika picked a few varieties for their meal. As Kamalu looked around, he saw a large rock wall in the ocean. “Kawika, what is that?” Kawika replied, “That is a loko kuapā, another type of loko which has a wall made of many pōhaku and a mākāhā which keeps the fish in the pond. It also has a greater variety of fish than all the other loko i‘a we explored.”

Kamalu couldn’t wait any longer. He immediately went fishing. Having better luck than earlier, he caught three ‘ama‘ama. The cousins were happy to feast on the limu and ‘ama‘ama, a delicacy of the ali‘i, and after their long journey, they felt like ali‘i of the ahupua‘a which they just explored!

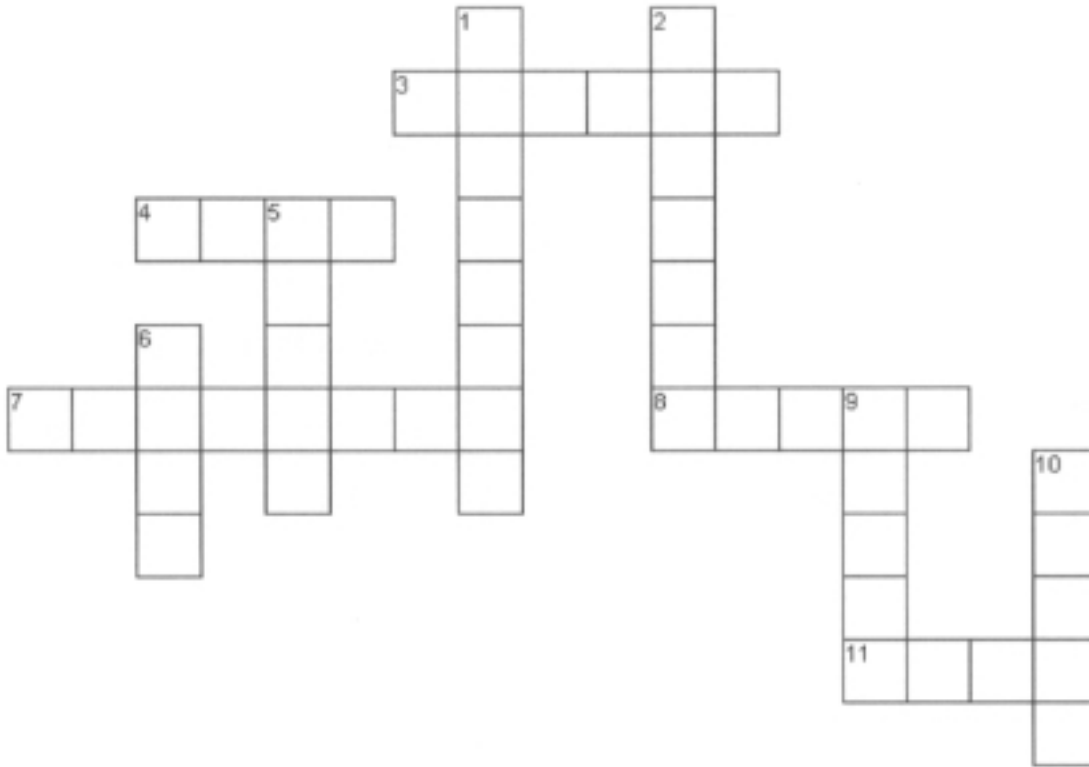
Holoholo Scramble

Now that Kawika and Kamalu have completed their journey, help them recall what they discovered by searching for the underlined words of the story in the scramble below.

The words may be in any direction including backwards! Good luck!

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Fishpond Basics



Across

3. Type of fish raised in fishpond
4. Plant important to Hawaiians and grows in patches
7. *Wai kai* is this type of water found in fishponds
8. Water travels between fishponds through this channel
11. Main animal raised in a fishpond

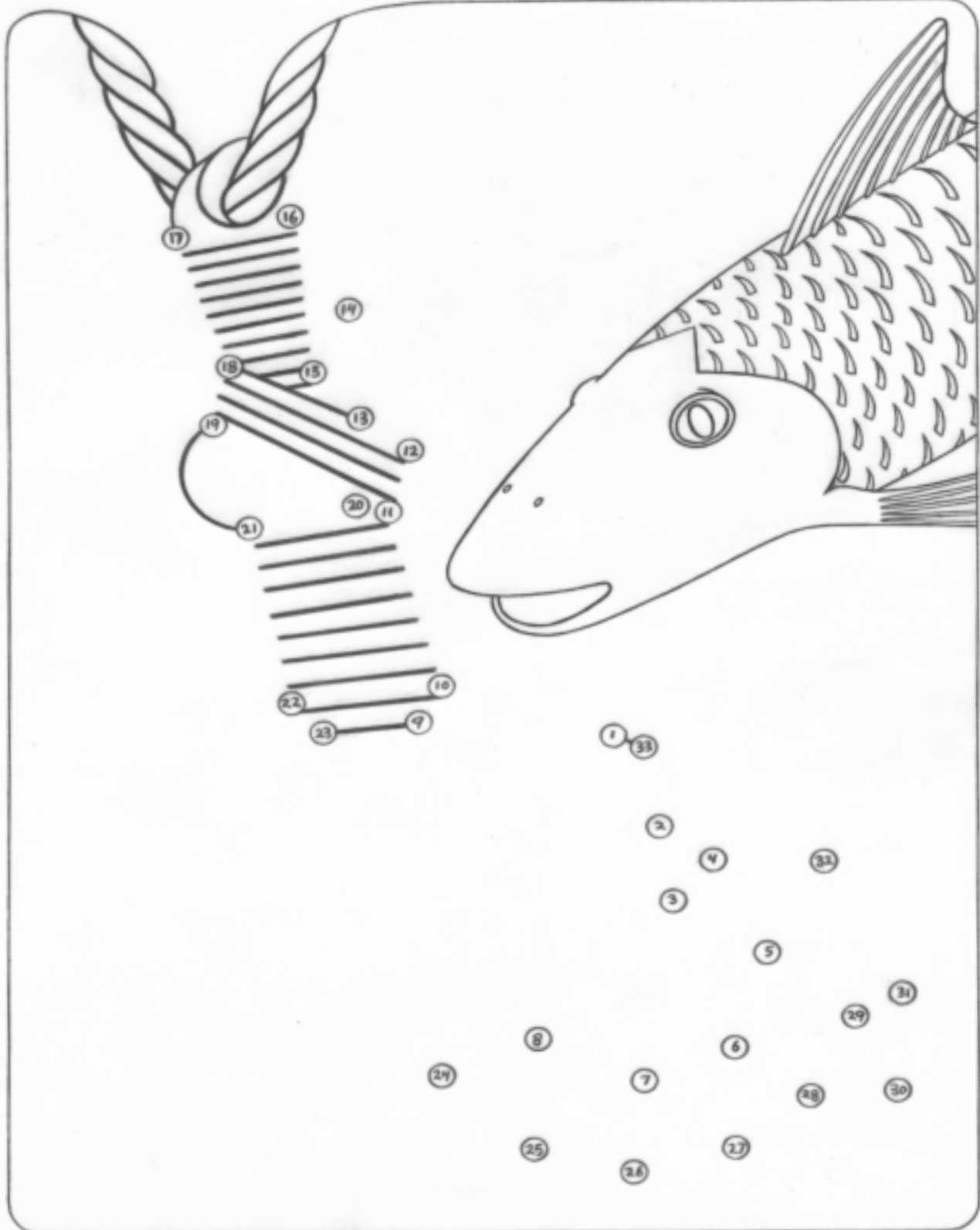
Down

1. Seaweed gets its energy from this source
2. Plants which float in the ocean
5. Material used to construct a fishpond wall
6. Object which prevented large fish from escaping a fishpond
9. Fish were raised for this person
10. Torch fishing done at this time of day

Note: All words used in the above crossword puzzle are in English.

What has the i'a found?

This curious i'a has found something interesting.
Connect the dots and find out what it is.



Save the Lawai‘a from the Falling Kuapā!

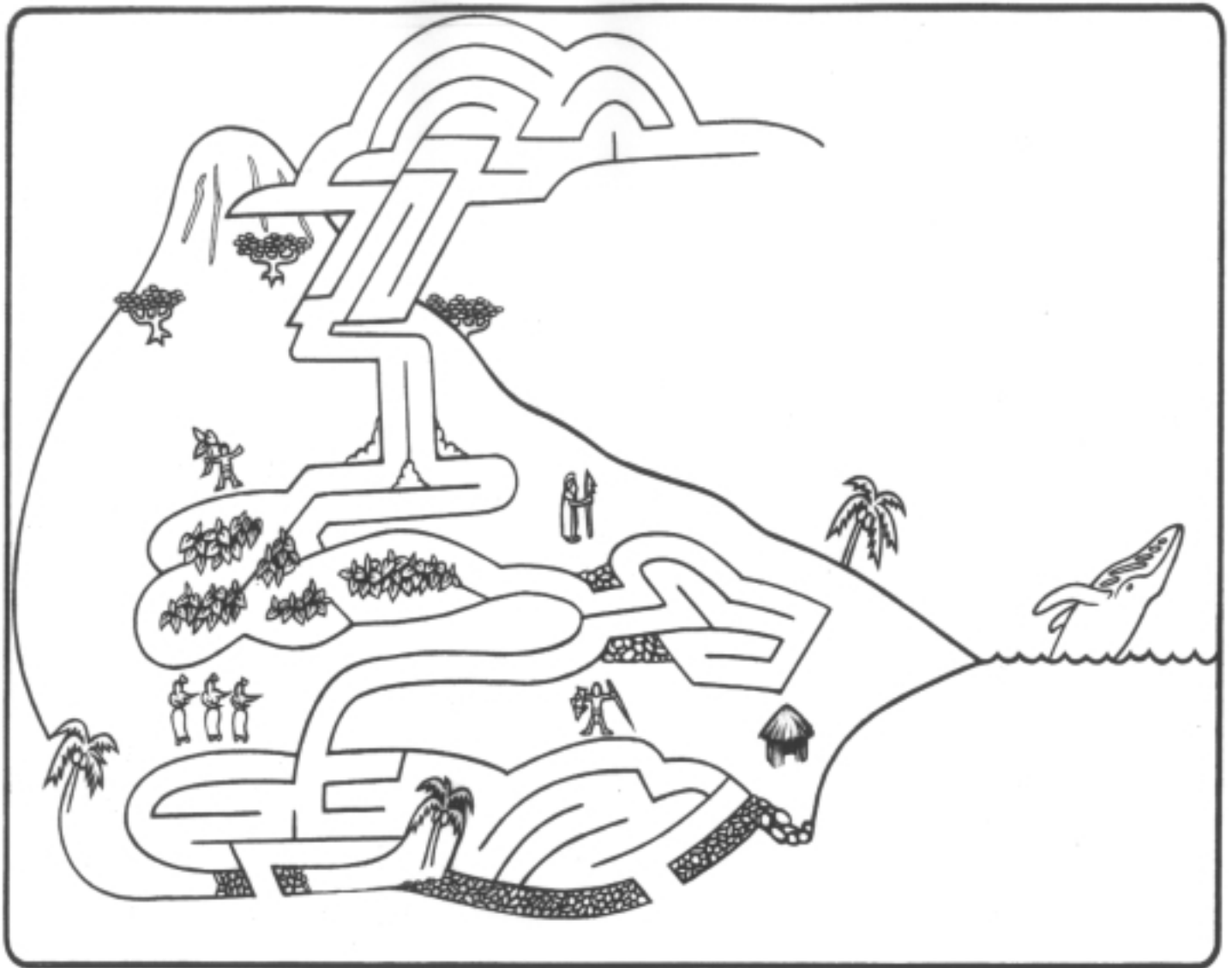
The lawai‘a below has spotted a large school of mullet swimming by. As he throws his ‘upena, he feels the kuapā beneath him falling apart. Help the lawai‘a keep his balance and place the pōhaku back in their proper place. Draw a line from the pōhaku below to their position along the kuapā.



Uwē ka lani ... Ola ka honua. When the sky weaps ... the earth lives!

As the rain falls from the sky, it travels through the ahupua'a, bringing life to the earth, the people and the fishponds. Hawaiians maintained the natural flow of water to ensure a healthy environment. When rivers and ditches were clogged by fallen trees and leaves, the entire community would gather to clean the debris.

Help the Hawaiians of this ahupua'a clear the path of the water as it makes its way from the sky, through the mountains and into the loko kuapā found along the shoreline.



¹ ‘Ōlelo No‘eau by Mary Kawena Puku‘i 1983.

Fishpond Trivia

Test your knowledge about fishponds and determine whether the following statements are true. If you select false, record the reason for the false statement. Have fun!

1. T or F The loko kuapā is unique to Hawai'i and found no where else in the world.
2. T or F When gathering limu, you should always rip its roots off the rocks.
3. T or F There's a greater variety of life found in a fishpond along the shoreline than those in the uplands.
4. T or F It's always a good idea to remove rocks from a fishpond wall to help the water flow in and out of the pond.
5. T or F The rocks of a fishpond were carried for miles from the river beds and lava fields to build the rock wall of the loko kuapā.
6. T or F Hawaiian communities would gather together to clean the 'auwai of fishponds.
7. T or F Fishponds were symbols that showed that chiefs were poor because they had to raise their own food.
8. T or F The water within a loko kuapā was shallow so that the limu could be in the sunlight and grow faster.
9. T or F The mākāhā of a loko kuapā allowed large fish to enter a fishpond and prevented small fish from escaping the fishpond.
10. T or F You should pass on the Hawaiian traditions and knowledge so that other people may also benefit.



Hawaiian Glossary

'ae - yes

āholehole - Hawaiian flagtail fish

ahupua'a - traditional land division from the mountain to the sea

akamai - smart

ali'i - chief

'ama'ama - mullet

auē - Oh dear! Alas!

'auwai - ditch or channel

awa - milkfish

hele - to go

hiki nō - can do

holoholo - to go for a walk

i'a - fish

kai - sea

kalo - taro

keiki - child

lawai'a - fisherman

limu - seaweed

loko - pond

loko i'a - fishpond

loko i'a kalo - fishpond with taro

ma uka - uplands, mountain area

loko kuapā - fishpond made of a rock wall and sluice gate encompassing the shoreline

loko pu'uone - fishpond separated from the ocean by a sand berm

loko wai - freshwater fishpond

mākāhā - sluice gate

ma kai - lowlands, seaward area

moana - ocean

'o'opu - goby fish

'ōpae - shrimp

'ōpū - stomach

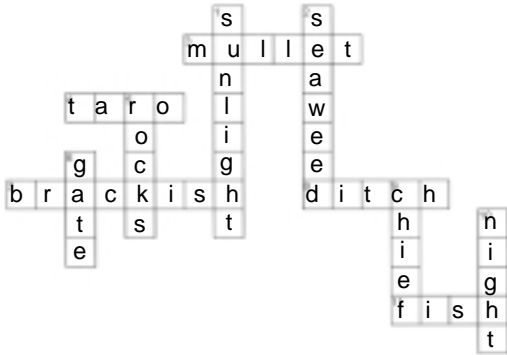
pōhaku - rock

wai kai - brackish water

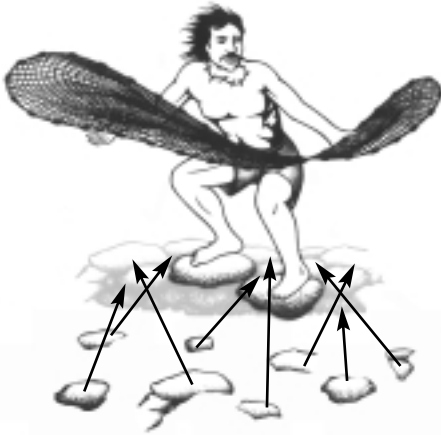
'upena - net

Answer Key

Fishpond Basics



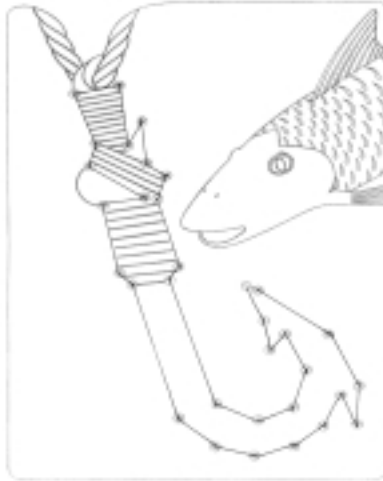
Save the Lawai'a from the Falling Kuapā!



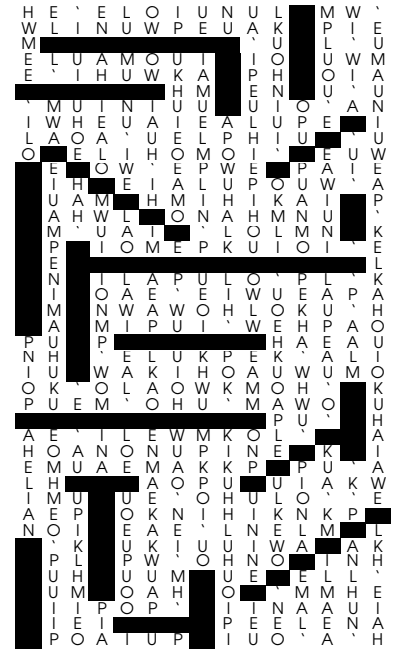
Fishpond Trivia

1. True The loko kuapā is unique to Hawai'i and found nowhere else in the world.
2. False When gathering limu, you should always rip its roots off the rocks. *Answer: You should pinch the limu off and leave the roots on the rock so that it can grow for future use.*
3. True There's a greater variety of life found in a fishpond along the shoreline than those in the uplands.
4. False It's always a good idea to remove rocks from a fishpond wall to help the water flow in and out of the pond. *Answer: You should leave the rocks of a fishpond wall in its place. Water flows between the rocks in the wall.*
5. True The rocks of a fishpond were carried for miles from the river beds and lava fields to build the loko kuapā's rock wall.
6. True Hawaiian communities would gather together to clean the 'auwai of fishponds.

What has the i'a found?



Holoholo Scramble



Uwē ka lani Ola ka honua.



7. False Fishponds were symbols that showed that chiefs were poor because they had to raise their own food. *Answer: On the contrary, fishponds signified wealth for a chief because he could provide food for his ahupua'a and he could organize thousands of his commoners to take on the task of building fishponds. The more fishponds a chief had, the wealthier he was!*
8. True The water within a loko kuapā was shallow so that the limu could be in the sunlight and grow faster.
9. False The mākāhā of a loko kuapā allowed large fish to enter a fishpond and prevented small fish from escaping the fishpond. *Answer: The mākāhā contained slots which allowed small fish to come and go as they pleased and prevented the larger fish from escaping.*
10. True You should pass on the Hawaiian traditions and knowledge so that other people may also benefit.

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'Ao`ao O Nā Loko I`a O Maui
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