



Our Ahupua‘a* – Sustainable Living in Traditional Hawaiian Culture

He ali‘i nō ka ‘āina, he kauā wale ke kanaka.

The land is chief; man is but its servant.

Written by Joylynn Paman

Ma Uka – The Majestic Mountains and Forested Uplands

Exploring an *ahupua‘a* from the mountains to the sea is a magical journey where native bird songs, flowing streams, and the rhythm of the ocean awaken our senses to the beauty of Hawai‘i. *Ma uka* – where the clouds embrace the forest – is *wao akua*, a sacred place inhabited by the gods. Only a select few were allowed to visit this spiritual land. Even then, access was only granted at certain times for specific reasons. Before entering, Hawaiians offered prayers to explain their good intentions and to request permission to access this sacred realm.

The *kia manu* (bird catchers) were among the Hawaiians allowed to enter *wao akua*. There they would sit patiently among the dripping tree ferns listening for the whirr of ‘*iwi* wings and watching intently for that brilliant flash of scarlet feathers among the trees. ‘*Iwi* and other forest birds, such as the ‘*apapane* and ‘*amakihī*, flit among the branches of ‘*ōhi‘a lehua* trees sipping nectar from the blossoms.

The *kia manu* lured, captured, and gathered feathers from the birds for crafting into beautiful ‘*ahu ‘ula* (capets and cloaks), *mahiōle* (helmets), *kāhili* (feather standards), and *lei hulu* (feather wreaths) for the *ali‘i* (chiefs). Using sticky sap of ‘*ulu* or seedpods of *pāpala kēpau* attached to an ‘*ōhi‘a* branch, the *kia manu* set his trap. As the bird approached the *lehua* blossom, its feet would stick to the gummy sap or pods. The *kia manu* then carefully removed the desired feathers, applied medicine, and wiped the gum from the bird’s feet.

Above *wao akua* are *wao ma‘u kele* and *wao nahele*, forested regions where *koa* and other large trees once grew and forest resources were gathered. The majestic *koa* trees, which have been overharvested in modern times, were prized for canoe building. When the *kahuna kālai wa‘a* (canoe builder) learned of a suitable *koa* tree for a canoe, he slept and dreamt before an altar, receiving wisdom from his deities. If he awoke with a vision of a clothed man or woman, the *koa* tree was considered healthy and strong.

The *kahuna kālai wa‘a* then went into the forest to confirm the health of the tree. As he approached, he would watch for the ‘*elepaio* bird. These small native birds feed on insects, either caught on the wing or under the bark of trees. ‘*Elepaio* are believed to be a form of the canoe goddess, *Lea*. If ‘*elepaio* perched and

began pecking on a *koa* tree, it was thought that the tree was filled with insects and not a good selection. If ‘*elepaio* did not spend time searching for insects on the chosen *koa* tree, then it was healthy and strong, and suitable for a canoe.

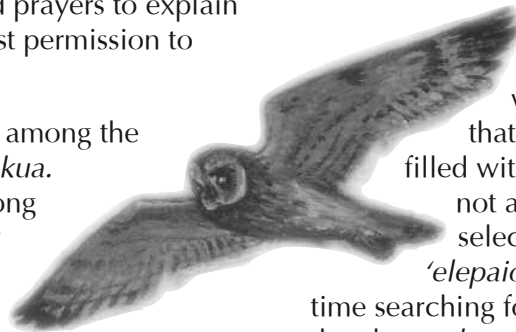
The *kahuna kālai wa‘a* then made offerings and performed chants and prayers to his gods. At night, he and his assistants slept at the base of the tree. After more spiritual rituals, the tree was carefully cut down, roughly hollowed out, and hauled *ma kai* (towards the sea) to the *hale wa‘a* (canoe house) for finishing.

Below *wao akua* is *wao kanaka*, the region where early Hawaiians gathered a variety of plants for daily needs. From the hardwood of the *kauila* tree, Hawaiians carved *ihe* (spears) and *mea ho‘ohana* (tools and implements). They gathered *olonā* plants and wove the exceptionally strong plant fibers into durable cordage for fishnets and fish lines. In these forests, plants such as the *ko‘oko‘olau* yield medicines to heal, and the ‘*ie‘ie* provide strong aerial roots for lashing house posts and securing outriggers to canoes. Fragrant *maile* growing is still treasured for its fragrance and beauty in *lei* (wreaths).



Ahupua‘a:

A traditional Hawaiian land division that typically extends from the mountains to the edge of the coral reef, in which Hawaiians were able to live a largely self-sustaining lifestyle by responsibly utilizing and conserving natural resources.



Kula – The Vast Plains and Fertile Fields

The regions of the *ahupua'a* are linked by *wai* (water). Falling from the heavens into *wao akua*, *wai* is a gift from the gods. It falls freely as majestic waterfalls into *kahawai* (streams) in the *kula* region of the *ahupua'a*. *Wai* symbolizes bounty for Hawaiians because it gives life to all living things, and it is the foundation for agriculture and aquaculture. *Wai* is of such importance that the Hawaiian word for wealth and prosperity is *waiwai*.

Hawaiians were master farmers and engineers, crafting intricate *'auwai* (irrigation ditch) systems to irrigate their *lo'i kalo* (taro patches). *Kalo*, the main food staple for early Hawaiians, is considered the progenitor of the Hawaiian race and serves as a spiritual connection between Hawaiians and nature.

Around the taro patches and along the streams, Hawaiians grew useful plants such as *mai'a* (banana), *'ulu* (breadfruit), *kī* (ti), and *kō* (sugar cane). They harvested freshwater fauna, such as *'o'opu* (goby fish), *'ōpae* (shrimp), and *hīhīwai* (freshwater snails), that thrived in the clear, cool, flowing streams. *Ae'o* (Hawaiian stilts), *'ūlili* (wandering tattlers), and *'alae 'ula* (Hawaiian moorhens) also flocked near the *kahawai* and in taro patches to feast on shellfish and small fish.

In the *kula* region, grasslands were transformed to agricultural fields where Hawaiians grew *'uala* (sweet potato) and tended a variety of plants that were useful for everyday needs. They gathered *kukui* nuts for oil and to make into lights. They grew *'ohe* (bamboo), which they crafted into fishing poles and stamps to add decorative patterns for their *kapa* (bark cloth). Walking through this region in old Hawai'i, one would hear the rhythmic pounding of *kapa* beaters as women beat the inner bark of the *wauke* (paper mulberry) plant to make their cloth. It took a lot of time for women to make the finest, softest, and

Did you know?

- ✂ Not all of the islands were divided into *moku*. The smaller islands of Lāna'i and Kaho'olawe are within different *moku* of Maui, and Ni'ihau is within a *moku* of Kaua'i.
- ✂ *Ahupua'a* varied in size from 100 acres to over 100,000 acres. On Hawai'i Island, the *ahupua'a* of Kahuku included over 184,000 acres!
- ✂ The *ahupua'a* of Wai'anae on the leeward coast of O'ahu does not conform to the typical design of an *ahupua'a*. Instead, it extends across the island to the Ko'olau Mountain range, thus providing the resources of this wetter area.
- ✂ Not all *ahupua'a* stretched from the mountains to the sea. There are rare exceptions, such as the land-locked *ahupua'a* of Kī'ao, in the *moku* of Ka'ū on the *mokupuni* of Hawai'i. It does not reach the ocean.
- ✂ Food and other products could be exchanged between people of different *ahupua'a*. For example, if one *ahupua'a* was abundant with *kalo* and not so much with fish, residents of that *ahupua'a* could trade their *kalo* for fish from another *ahupua'a* that was bountiful with fish.

most durable *kapa*, which was used for clothing, bed sheets, and in religious ceremonies. Hawaiian *kapa* was valued so much, that it was a form of wealth and Hawaiians reserved their best for tributes to their *ali'i*.

Women were also skilled in the art of weaving fine mats, baskets, fans, pillows, and canoe sails from *lau hala* (pandanus leaves).

Because of the efficiency of the *ahupua'a* system, early Hawaiians became skilled masters of their trades. Hawaiian featherwork, canoe building, competitive sports, dance and chant, farming, and fishing were mastered so well that many of their products were the finest in the Pacific. This resulted in the development of rich traditions and practices that are still celebrated and practiced today.

Pulelehua

The *pulelehua*, the Kamehameha butterfly, gracefully flutters near *koa* trees in the forest and its larvae curl themselves into the leaves of the *māmaki* shrub. Named after King Kamehameha the Great in the early 1800s, this butterfly became the official insect of the State of Hawai'i in 2009. Colorfully decorated with reddish-orange wings bordered with a bold black outline, like the elaborate designs of Hawaiian royalty, the *pulelehua* is one of only two butterflies that are native to the islands. Adults feed on the sap of *koa*, *naio*, and other forest trees, while the brightly colored green with yellow striped caterpillars prefer the leaves of the *māmaki*.



Ma Kai – Productive Shores and the Bountiful Sea

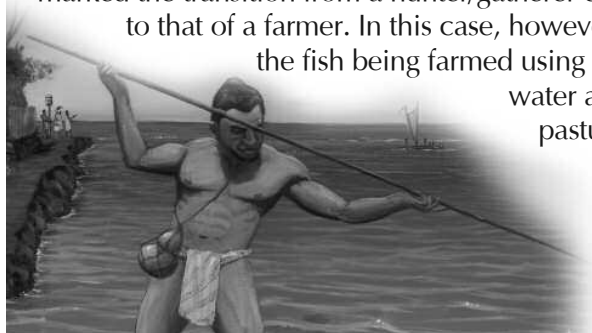
Streams from the *kula* region flowed *ma kai* to the sea. The *ahupua'a* continued from the *kahakai* (shoreline) to the outer edges of the coral reef. Hawaiians have an intimate relationship with the ocean. It was the path their ancestors followed to find Hawai'i, and it sustained life by providing fish, salt, and other marine resources, which were exchanged with others from the *ma uka* and *kula* regions of the *ahupua'a*.

In old Hawai'i, fish, *limu* (seaweed), sea urchins, and other marine life were abundant here. *Pa'akai* (sea salt) was especially important because it was the pure salt that seasoned and preserved foods and was used for medicine and in religious ceremonies.

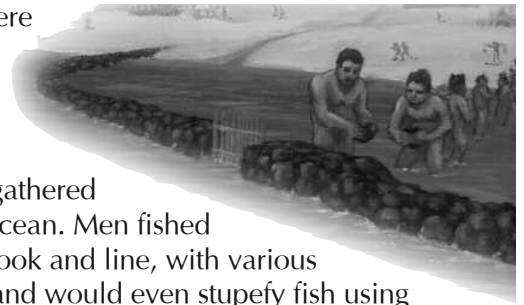
Streams flowed into fishponds, which were the masterpieces of Hawaiian ingenuity in the *ma kai* area. The simple yet impressive design of the *loko kuapā* style fishpond consisted of a *kuapā* (rock wall) and *mākāhā* (sluice gate). The massive *kuapā* enclosed a portion of the nearshore ocean. Rocks were passed *ma uka* to *ma kai*, hand-to-hand in a human chain that stretched for miles. *Mākāhā* were strategically placed in areas that took advantage of the ebb and flow of the tides. Its vertical slats were tightly spaced, so small fish could come and go, while larger fish grown in the pond would be retained there. *Loko kuapā* were built in specific areas where brackish water was found. This created the ideal environment for choice fish for the *ali'i* such as the *'ama'ama* (mullet), *awa* (milkfish), and *āholehole* (Hawaiian flagtail).

As the tides changed, fish were drawn toward the swift currents near the *mākāhā*. Small fish entered the pond and feasted on seaweed and other life within. In time, the fish would become too fat, leaving them unable to fit through the tight slats of the *mākāhā*. They were trapped.

Similar to fishponds, fishtraps were found throughout Polynesia. However, it was the ingenuity of the early Hawaiians, who added the *mākāhā*, which set their design apart from the rest. The *mākāhā* was a major milestone in the evolution of the Hawaiian people as it marked the transition from a hunter/gatherer existence to that of a farmer. In this case, however, it was the fish being farmed using the water as the pasture.



Loko kuapā were reserved for the use of the *ali'i* while the *maka'āinana* (commoners) gathered fish from the ocean. Men fished by hand, fishhook and line, with various kinds of nets, and would even stupefy fish using certain plants in tidepools. Women gathered seaweed along the shores and caught fish in small fishtraps. To maintain the balance of resources in the *ma kai* region, *kapu* (taboo) protected fish and other sea life during their spawning seasons. *Ko'a* (fishing shrines) were situated along the shorelines for fishermen to make offerings and prayers to their gods.



Through innovative uses of resources and proper land management practices, the entire *ahupua'a* supported early Hawaiians with the bountiful necessities of life. It was the *'āina*, "the land that feeds," and with the nourishments from the land came the responsibility to *mālama 'āina* (care for the land).

The Ahupua'a – A Land Connecting Hawaiians with Nature

The design of an *ahupua'a* is ingenious. It is based on centuries of experience and wisdom gained by early Hawaiians. It is a self-sustaining environment and a direct reflection of a deep spiritual connection and understanding of being one with nature, caring for nature, living with nature, and thus, thriving with nature.

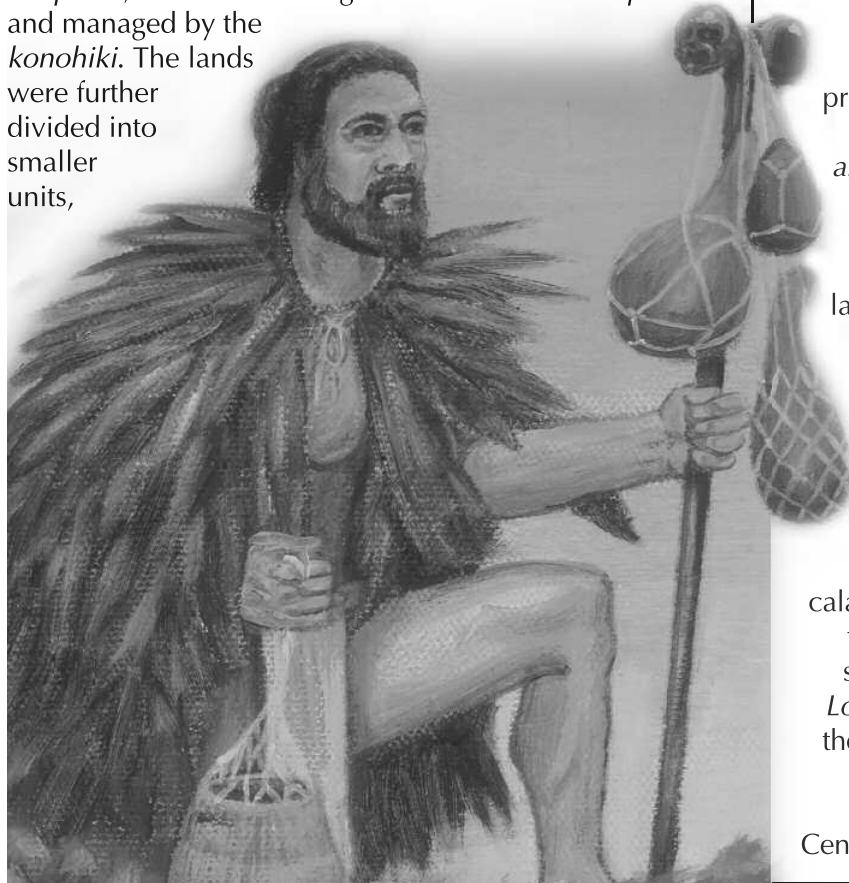
Early Hawaiians believed that everything around them was alive with *mana*, a spiritual power that connected nature with humans. From the sun, moon, and stars, the rains and winds, the plants and animals, the land and sea, everything was alive with *mana*. When this connection was maintained, everything would be *pono* (balanced), and life would be bountiful and flourish.

An elaborate set of rules and prohibitions known as *kapu* were strictly enforced. Examples of *kapu* were the fishing of specific fish during different seasons and planting certain types of plants at particular times of the year. *Kapu* was an effective basis for what we now call conservation. It ensured that the community would be sustained by carefully and respectfully managing its resources.

Through a deep connection with nature, *mana*, and the use of the *kapu* system, it was everyone's responsibility to *mālama 'āina*. If the people cared for the land, the land would care for the people.

The Making of an *Ahupua'a*

The *ahupua'a* system began nearly five centuries ago during the reign of 'Umi, son of the great chief Liloa. It was at this time when Hawai'i was divided into political regions. An entire island or *mokupuni*, was ruled by a dominant island chief, the *ali'i nui*. The *ali'i nui* then delegated large land sections known as *moku* to a chief of lesser rank, the *ali'i 'ai moku*. Within these large districts were yet smaller sections of land, *ahupua'a*, which were assigned to the *ali'i 'ai ahupua'a* and managed by the *konohiki*. The lands were further divided into smaller units,



such as 'ili, that were utilized by the *maka'ainana*, the common people.

Extending from the mountains to the sea, the *ahupua'a* is typically a wedge-shaped piece of land that widens toward the shore. The *ahupua'a* ideally can be a self-sufficient environment with nearly all of the natural resources needed for its residents to survive.

Makahiki – Once a year, during the *Makahiki* season (roughly October to February in the western calendar), *Lono* – god of peace, agriculture, and fertility – is celebrated. To prepare for these festivities, Hawaiians built *ahu* (altars) marking the boundaries of each *ahupua'a*. The *ahu* were built or rebuilt along a trail that circled the island. A *kahuna* (priest) who was responsible for collecting offerings from the people, walked the trail along with a large entourage. They walked from *ahupua'a* to *ahupua'a* with the ocean to their left and the mountains to their right. They carried images of *Lonoikamakahiki* (*Lono* of the *Makahiki* Season) and associated gods.

Commoners from each *ahupua'a* placed *ho'okupu* (offerings), such as food, fine *kapa*, intricately woven *lau hala* mats, sturdy nets, calabash bowls, and other items by the *ahu*. Once the *kahuna* determined that the *ho'okupu* were sufficient to please *Lono*, he distributed them to *Lono's* earthly representatives, the *ali'i*, and lifted the *kapu*. This signified the beginning of the four-month long *Makahiki* season filled with peace, games, dance, relaxation, and celebration. Centuries later, this festival is still celebrated today.

Hawaiian Terms

ae'o – Hawaiian stilt, a waterbird	ali'i – chief	heiau – temple	kahuna – priest or expert
āholehole – Hawaiian flagtail fish	ali'i 'ai ahupua'a – chief of an ahupua'a	hīhīwai – large, edible freshwater snail	kahuna kālai wa'a – expert canoe builder
ahu – small stone piled structure, altar	ali'i 'ai moku – chief of a moku (large land section or district)	ho'okupu – offering, gift	kai – sea
ahupua'a – land division typically extending from the uplands to the outer edge of the coral reef	'ali'i nui – dominant island chief	'ie'ie – climbing plant with strong aerial roots	kalo – taro, an important food staple plant
'ahu 'ula – feather cloak or cape	'ama'ama – mullet fish	ihe – spears	Kamehameha the Great – united and ruled all of the Hawaiian islands as king
'āina – land	'auwai – irrigation ditch	'i'iwi – scarlet honeycreeper bird	kanaka – human being
'alae 'ula – Hawaiian moorhen (gallinule), a waterbird	awa – milkfish	'ili – small units of land utilized by the common people	kapa – bark cloth made from wauke or māmaki
	'elepaio – flycatcher bird	kahakai – shoreline, seashore	kapu – taboo, prohibition
	hale wa'a – canoe house	kahawai – stream	kauā – servant
	hala – pandanus plant used in weaving mats, sails, and other items	kāhili – feather standard	

Boundaries of an *ahupua'a* were marked with an *ahu*, an altar of stones, and upon it, laid a carved image of the head of a *pua'a* (pig), thus the name, "*ahupua'a*." It not only marked the boundary between two *ahupua'a*, it also served as an altar for tributes to the god *Lono* during the *Makahiki* season.

The People of an *Ahupua'a*

In early Hawai'i, no one owned the land; it belonged to the gods. The god's earthly descendants, the *ali'i*, were the guardians of the land governing the land and its people. High-ranking *ali'i* were accompanied by their advisers, the *kahuna* – priests who spiritually connected with the gods and held religious rituals in *heiau* (temples) and experts in medicine, fortune telling, carving, and navigation. The *maka'ainana* – the farmers, the fishermen, the craftsmen, and the warriors – were assigned land by the *konohiki* and worked the land and sea.

People living within an *ahupua'a* were free to use its resources *ma uka* as well as *ma kai*, but the distance was usually miles long making it inefficient to gather from both areas. Instead, an informal system of sharing known as *kō kula uka*, *kō kula kai* was used. Those of the uplands exchanged food and supplies with those of the sea.

Bringing the Knowledge of the Past into the Present

Although the traditional boundaries are not as obvious today, the general concept of *ahupua'a* still exists. What happens in the uplands affects life below. Healthy native forests act as a sponge, intercepting rainfall that recharges our streams and aquifers. Water in the mountains also flows through the landscape to the ocean. When there is a healthy watershed, the ocean and all its resources thrive. Water is given time to filter, and essential nutrients support marine life. However, if pollution, sediment, and silt *ma uka* are washed to sea, our coral reefs suffer.

With increasing pressure on our natural resources and a growing interest in creating a sustainable and self-sustaining lifestyle, people are now looking to the *ahupua'a* for answers. This can be challenging in a modern island lifestyle that is culturally diverse, has become widely urbanized, and has new natural threats such as invasive species. However, there are valuable lessons we can learn from our Hawaiian ancestors who thrived for centuries by living a prosperous lifestyle through the ingenious design of the Hawaiian *ahupua'a*.

"Ika wā kahiko, ka wā ma mua." In the past, lies the future.

Hawaiian Terms

kauila – hardwood tree valued for spears and tools
 kī – ti plant
 kia manu – bird hunter
 ko'a – shrine, fishing grounds
 koa – dominant forest tree used for canoes
 kō – sugar cane
 konohiki – land manager or overseer of an *ahupua'a*
 ko'oko'olau – plant used in medicines
 kukui – candlenut tree
 kula – region of grasslands and agricultural fields
 lau – leaf
 Lea – canoe goddess
 lei – wreath
 lei hulu – feather wreath

Līloa – great chief, father of 'Umi
 loko kuapā – a type of fishpond at the shore
 Lono – god of peace, agriculture, and fertility
 limu – seaweed
 mahiole – helmet
 mai'a – banana
 maile – fragrant plant valued for lei
 maka'ainana – commoner
 mākāhā – sluice gate
 loko kuapā fishpond
 Makahiki – season of peace, religious festivities, and sports
 ma kai – lowland seaward region
 mālama 'āina – to care for the land
 māmaki – shrub favored by the Kamehameha

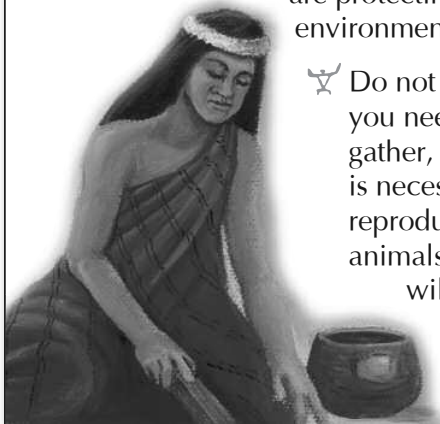
butterfly and used to make kapa
 mana – supernatural or divine power
 ma uka – upland mountainous region
 mea ho'ohana – tools, implements
 moku – large land section, district
 mokupuni – island
 naio – false sandalwood
 'ohe – bamboo
 'ōhi'a lehua – dominant forest tree
 olonā – shrub valued for fiber from bark
 'o'opu – goby fish
 'ōpae – shrimp
 pa'akai – sea salt
 pāpala kēpau – native plant with sticky sap
 pono – correct, right

pua'a – pig
 pulelehua – Kamehameha butterfly
 'uala – sweet potato
 'ūlili – wandering tattler, a migratory bird
 'ulu – breadfruit
 'Umi – son of great chief Līloa
 wauke – paper mulberry tree used to make kapa
 wai – water
 waiwai – wealth, prosperity
 wao akua – cloud forest region inhabited by the gods
 wao kanaka – region of small trees and some cultivated crops
 wao ma'u kele – forest region with large trees
 wao nahele – rain forest region with large trees

Ways to Mālama Your Ahupua'a

- ✧ Learn about the *ahupua'a* you live in. Research the history, place names, proverbs, and legends that make your *ahupua'a* unique and share this information with others.
- ✧ Protect the *kahawai* (streams) and *kai* (sea). Clean and keep empty cans, bottles, and trash from entering storm drains, streams, and the ocean. Do not use more water than you need.
- ✧ Help maintain and/or rebuild fishpond and *heiau* walls. These walls are centuries old and many have fallen apart. Volunteer with local organizations to maintain these sites properly.
- ✧ Help restore the forest and provide habitat for native Hawaiian birds and invertebrates by planting native trees.
- ✧ Remove invasive plants and animals from the land and sea. Invasive species take over natural areas and crowd out native Hawaiian species. By removing invasive species, you are protecting native environments.

- ✧ Do not take more than you need. If you fish or gather, take only what is necessary and return reproducing plants and animals so that there will be more for another day.



Posters

The Kauaian Institute sells posters featuring the *ahupua'a* of each island.

Visit http://kauaian.net/ahupuaa_poster.html

Kamehameha Schools published a detailed poster in 1993 that provides a glimpse of what the traditional *ahupua'a* may have looked like before the arrival of Westerners.

Visit <http://www.8t8llc.com/KS/category/KP4.html>

Curriculum

Pacific American Foundation. 2007. *Project Aloha 'Āina. A Teacher's Guide to the Ahupua'a*. Honolulu: The Pacific American Foundation. The Grade 4 teacher's guide focuses on the *ahupua'a*, fishponds, and taro patches. The place-based curriculum has been adapted for most islands.

Visit www.thepaf.org for more information.

For More Information

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