

Subtle and Sustainable: A Native Garden in Hawaii

by
Kathy Nunes

On a recent trip to Kona on the Big Island of Hawaii I was pleasantly surprised to learn that the first Hawaiians were a perfect example of a people who practiced sustainable gardening by their creative and resourceful utilization of native plants. I never really stopped to think about it until I toured the fifteen acre Amy B.H. Greenwell Ethnobotanical Garden in Hawaii. It wasn't a tour of the stunning Hawaiian gardens or common lush landscaping that we typically see along the roadsides in Hawaii. Instead, it was an eye-opening and captivating lesson about the roots of Hawaiian culture.

The word *ethnobotany* is a combination of the word *ethnology*, the study of culture, and *botany*, the study of plants. Ethnobotany is the scientific study of the relationships between people and plants. This is how people of a particular culture and region make use of native plants for things such as food, shelter, medicine, clothing, hunting, religious ceremonies, and much more.

It was mind boggling to find out that the vegetation I was seeing on the tour was the same as what was grown before the legendary Captain Cook arrived there around 1778. The garden had about 200 species of plants growing only in the area of Kona on the Big Island. This was just a small part of the Hawaiian big picture. Most of these plants were endemic to Hawaii only. I'd like to share some examples of how plants played a role in the evolving of a more advanced society in the Hawaiian Islands.

The native Hawaiians were organic farmers who practiced sustainable gardening. The main lesson that the Master Gardener program promotes is sustainability in home gardens, so I was especially interested in this history. One aspect of sustainable gardening is to have minimal impact on the environment by utilizing as many resources as possible. Ancient Hawaiians accomplished this by efficiently using multiple, if not all, parts of plants they had access to. They discovered that a plant's bark, leaves, stems, flowers, seeds, sap and ashes might all have different uses. That not only included meeting their basic nutritional needs, but many of them were also used for very specific medicinal purposes.

The coconut is a great example of how they accomplished sustainable farming by using the entire coconut. The trunks of the trees were used to make house posts, small canoes, hula drums and food containers. Leaves were used for baskets, thatched roofs and fans. Leaf sheaths were used as food and fish bait. Husk fibers were used for making nets, rope, and drum beaters. Coconut shells were used for spoons, bowls, plates, goblets, strainers, storage containers, lids, small mortars, and musical instruments. The flesh was eaten raw or made into a cream and pudding. They even used unripe coconuts because they provided nourishing liquid when no fresh water was available during their travels.

A large variety of native plants were used to make many staples. In some cases, Polynesians introduced plants such as kō (sugarcane), Niu (coconut) and Kī (Ti plant) which were then incorporated into Hawaiian culture.

Kapa was a commonly used fabric made from the inner bark of native trees. It was a long process of soaking, beating it and letting it dry. They had to create the fabric in only 4" pieces and bind those pieces together with more pounding. They created colorful and fragrant kapa by scenting and dyeing them with island plants. Could this be the origin of the popular Hawaiian shirts that are worn these days?

Besides clothing, these are some of the other staples that they learned to create from trees, shrubs and perennials:

- Footwear, hats, and rain capes
- Bowls, plates, cups, and baskets
- Hunting and fishing tools
- Fences, posts, temples, thatch roofs, ropes, and cords
- Canoes, paddles, surfboards
- Carved images, altar decorations, and hula offerings
- Weapons
- Musical instruments
- Games (including children's game of cock fighting - no joke!)
- Dye

Even though modern society is more advanced, can you imagine what would happen if we could find a way to utilize resources like they did? I hope that this will help us all think twice the next time we toss out plants and non-biodegradable products!

Kathy Nunes is a Master Gardener who loves to take Hawaiian vacations and whose in-laws are of Hawaiian ancestry.