



## WHERE DOES ALL THE 'ŌPALA GO?

## STUDENT READING 1

### WASTES IN EARLY HAWAI'I

In early Hawai'i, our *kūpuna* (ancestors) did not have to worry about plastic bags, glass bottles, or disposable diapers. These kinds of materials did not exist. They used natural materials to manufacture their tools and products, which later could be easily disposed of and broken down naturally in the soil.

Our ancestors were stewards of the land. They would consistently care for the 'āina, realizing that this most valuable resource would grow the food needed to feed their families. It was their *kuleana* (responsibility) to always *mālama* this gift given to them by their gods.

Also important were the tools they manufactured to help till the soil, catch their fish, serve their foods, build their *hale* (houses) and keep their bodies healthy. "Sanitary regulations imposed by *kapu* controlled the disposal of garbage and human wastes" (Mitchell, 1992).

Our *kūpuna* were known for their cleanliness. The foot paths within their *ahupua'a* were swept clean with the *ni'au* (coconut midrib) broom. Those who owned animals such as pigs, dogs, and chickens, observed the rules that required them to be placed in clean and sanitary areas.



The tools they developed were made from natural materials that could easily be returned to the earth to decompose. If an *ipu* (gourd) cracked, they would repair it. If a fish net became damaged, they would mend it. It was uncommon for our *kūpuna* to unnecessarily toss away items that could be easily fixed and reused. Waste was rare, as tools, nets and utensils took a long time to make. And when materials needed to be thrown away, they were buried in the earth or returned to the ocean to replenish the 'āina.

### OUR WASTES TODAY

Today we use many modern tools and products that are made of plastics and other materials that don't easily decay. Many products are disposable or come heavily wrapped in packaging. In 2003, people in the United States threw away an average of 4.5 lbs. of 'ōpala (rubbish) per person every day (EPA, 2006). Where does it all go? The 'ōpala that we don't recycle is carted to our landfills and to the H-POWER Plant in Honolulu, which processes 2,000 tons of garbage or 40 million pounds of metals a day.



On O'ahu, 1.6 million tons of garbage is generated every year; 500,000 tons of it goes into our landfills (City and Co. of Honolulu, 2006). Old carpets, furniture, mattresses, sewage sludge and dead animals are just a few of the items that end up in our landfills.

***How Long Will It Take to Break Down?***

Glass bottles	1 million years
Monofilament fishing line	600 years
Plastic beverage bottles	450 years
Disposable diapers	450 years
Aluminum can	80 - 200 years
Foamed plastic buoy	80 years
Rubber boot sole	50 - 80 years
Foamed plastic cup	50 years
Tin can	50 years
Leather	50 years
Nylon fabric	30 - 40 years
Plastic film canister	20 - 30 years
Plastic bag	10 - 20 years
Cigarette filter	1 - 5 years
Wool sock	1 - 5 years
Plywood	1 - 3 years
Waxed milk carton	3 months
Apple core	2 months
Newspaper	6 weeks
Orange or banana peel	2 - 5 weeks
Paper towel	2 - 4 weeks

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