

Makani

Ka Mōlī Mālama 'Āina

Makani: The albatross that cares for the land

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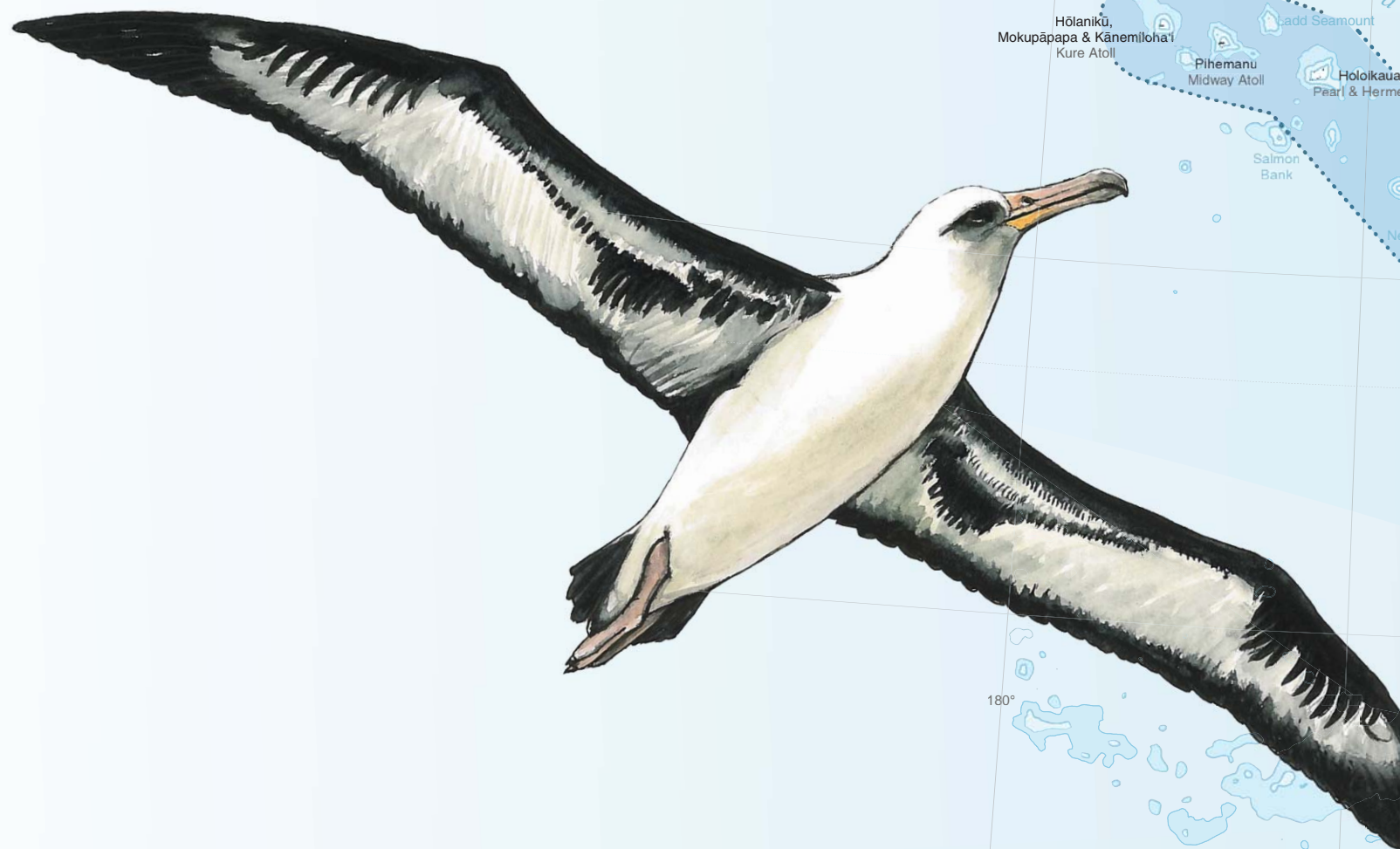


PAPAĀNAUMOKUĀKEA
Marine National Monument



Written by Marie Ayabe
and _____

Translated by Keali'i Sagum
Illustrated by Rena Ekmanis



Personal Reflection

1 How do our actions on land affect the ocean?

2 What in the environment is most important to you?

3 How can you help preserve those things in nature that are most important to you?

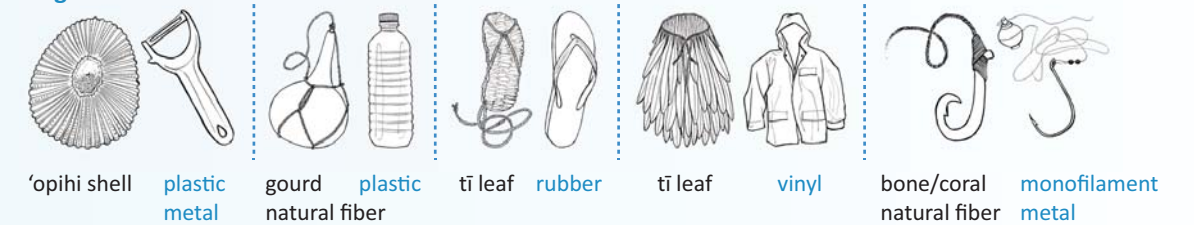
4 If you could study any animal, what would it be? Why?

Answers

Page 3

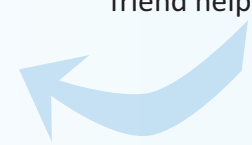
Question 1: 100 hours, Question 2: 140 hours, Question 3: 81 hours

Page 21-22



Measure Your Wingspan

The average wingspan of a Laysan Albatross is 7 feet (84 inches). Using the ruler on the edge of this page, have a friend help you measure your wingspan.



Distance Traveled

1 A Laysan Albatross in Hawai'i travels to Alaska to find food. If the bird's average flight speed is 30 miles per hour and the distance between Hawai'i and Alaska is 3,000 miles, how long will the journey take?

2 A Laysan Albatross in Hawai'i travels to Japan to find food. If the bird's average flight speed is 30 miles per hour and the distance between Hawai'i and Japan is 4,200 miles, how long will the journey take?

3 A Laysan Albatross in Hawai'i travels to North America to find food. If the bird's average flight speed is 30 miles per hour and the distance between Hawai'i and North America is 2,430 miles, how long will the journey take?



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Finish the Story

How does this story end? That is for you to decide. In the boxes provided, please draw your hope for the future.



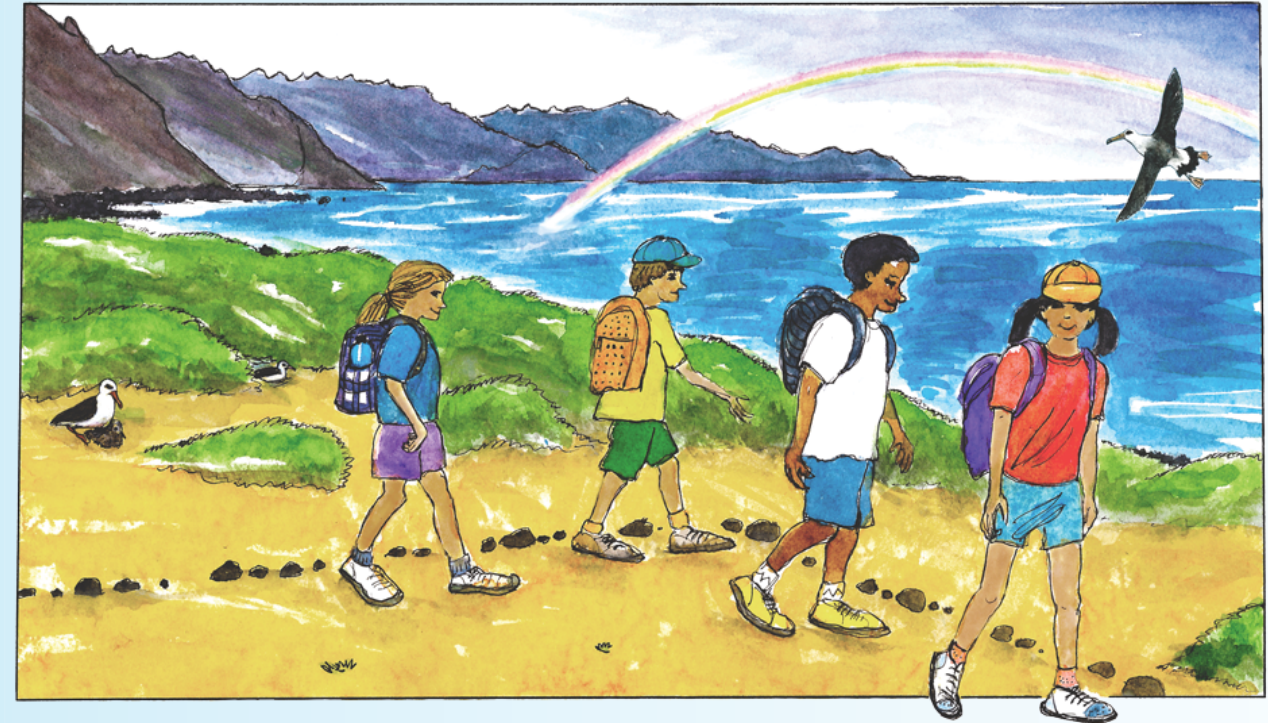
Continue your story here

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Blank writing area with a dashed line and three horizontal lines for text.



Ma 'ane'i, ma Ka'ena nō ko'u launa mua 'ana me ku'u ipo aloha 'o Manukea. Ma lanuali, ua lilo māua i mau mākua. I kekahi manawa, hele 'o Manukea a 'imi i hua i'a, mūhe'e, a pēlā wale aku e hānai ai i kā māua keiki. Ke ho'i mai 'o ia, kuapo a na'u e hele i kai a 'imi i mea'ai nāna.

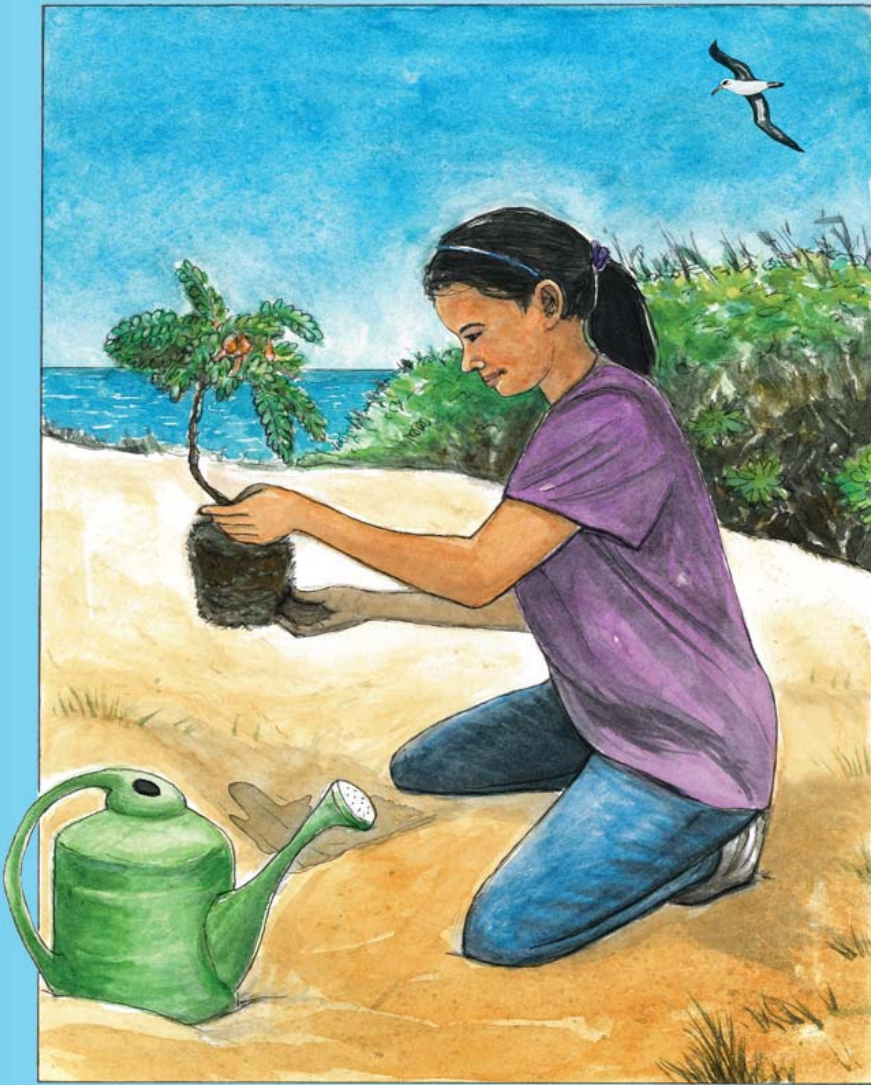


Despite these changes, I am hopeful. My hope comes from children. As I soar in the sky, I look down below and observe children spending time outdoors and connecting with nature. I see them cleaning debris from our beaches and caring for our home. I see them restoring the plants that sheltered me in my youth. I see them gazing into the night sky and studying the constellations. I see them hiking in the hills and remembering the stories of the past. I see them understanding that they are the future and that the stories of the future are for them to write.



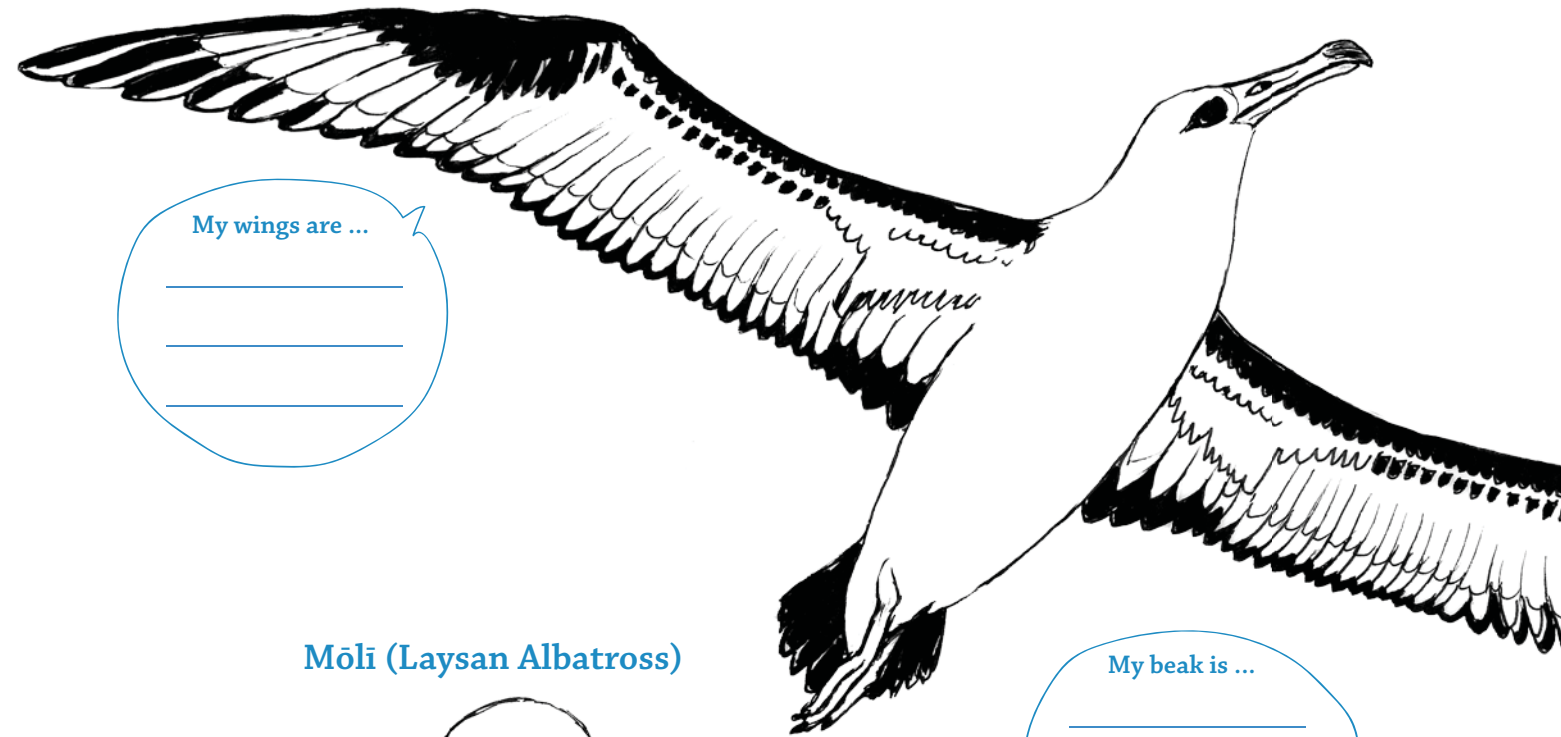


I loko nō o kēia mau loli 'ino, lana ho'i ko'u mana'o. I ko'u lele 'ana i 'ō a i 'ane'i, nānā iho au i lalo a 'ike au i nā keiki e pā'ani ana i ke ao kūlohelohe. 'Ohi'ohi lākou i ka 'ōpala ma kahakai. Kanu lākou i nā meakanu Hawai'i. Hele lākou a 'imi i nā mo'olelo Hawai'i kahiko. Maopopo nō lākou, no lākou ke kuleana 'o ka mālama 'ana i kēia honua no nā hanauna e hiki mai ana.



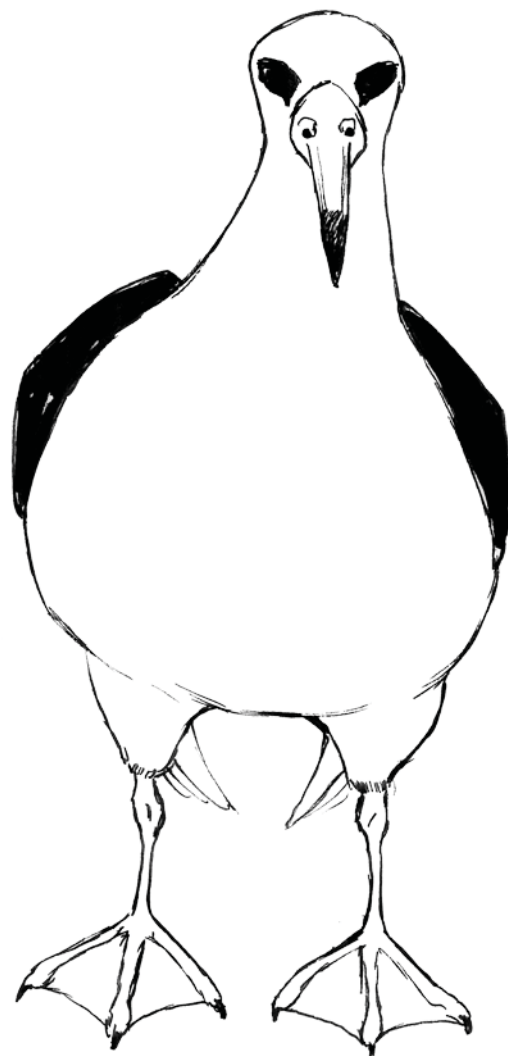
I t was here at Ka'ena where I met my soul mate, Manukea. In January, we became proud parents. We take turns going out to sea to hunt for fish eggs, squid, and crustaceans to feed our chick.





My wings are ...

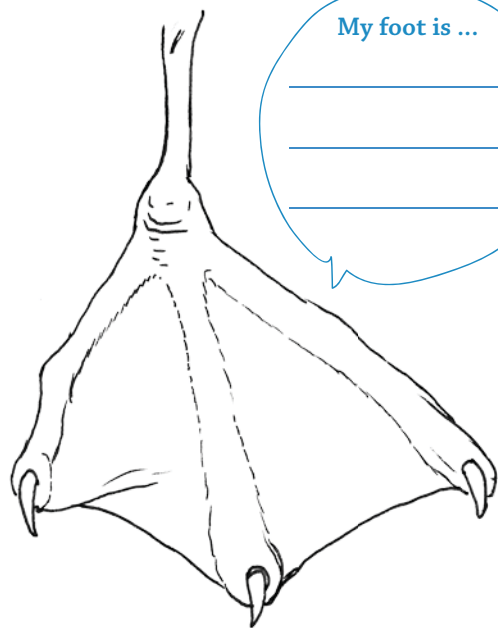
Mōli (Laysan Albatross)



My beak is ...



My foot is ...



MARINE DEBRIS TALLY SHEET - Hawai'i

Directions: Use tick marks to tally debris items larger than 2.5 cm, or about the size of a bottle cap. Total the amount and write in the # of pieces column for each item.

Date: _____

Location: _____

Data Collector: _____

Item	# of pieces (Tally (e.g., III) and Total)	Comments	Item	# of pieces	Comments
PLASTICS					
Plastic fragments (Hard)			GLASS		
Plastic fragments (Foamed)			Beverage bottles		
Plastic fragments (Film)			Jars		
Food wrappers			Glass fragments		
Beverage bottles			Other item (not listed above; please specify)		
Other jugs or containers			RUBBER		
Bottle or container caps			Flip-flops/slippers		
Cigar tips			Gloves		
Cigarettes/Filters			Tires		
Disposable cigarette lighters			Rubber fragments		
6-pack rings			Other item (not listed above; please specify)		
Bags			PROCESSED LUMBER		
Plastic rope/small net pieces			Cardboard cartons		
Buoys and floats			Paper and cardboard		
Fishing lures and line			Paper bags		
Cups (including foamed)			Lumber/building material		
Plastic utensils			Other item (not listed above; please specify)		
Straws			CLOTH/FABRIC		
Balloons			Clothing and shoes		
Personal care products			Gloves (non-rubber)		
Plastic toys			Towels/rags		
Other item (not listed above; please specify)			Rope/net pieces (non-nylon)		
METAL			Fabric pieces		
Aluminum/tin cans			Other item (not listed above; please specify)		
Aerosol cans			OTHER NOTABLE ITEMS		
Metal fragments			OTHER NOTABLE ITEMS		
Other item (not listed above; please specify)			OTHER NOTABLE ITEMS		
LARGE DEBRIS ITEMS (>1 foot or ~0.3 meters)					
Item type (vessel, net, etc.)	Status (sunken, stranded, buried)	Approximate width (m)	Approximate length (m)	Description / photo ID # (if photos taken)	

MARINE DEBRIS TALLY SHEET - Hawai'i

Directions: Complete this form during each survey. Fill out both sides. Please write legibly.

Organization:	
Surveyor/Data collector name:	
Phone number:	()
Email address:	

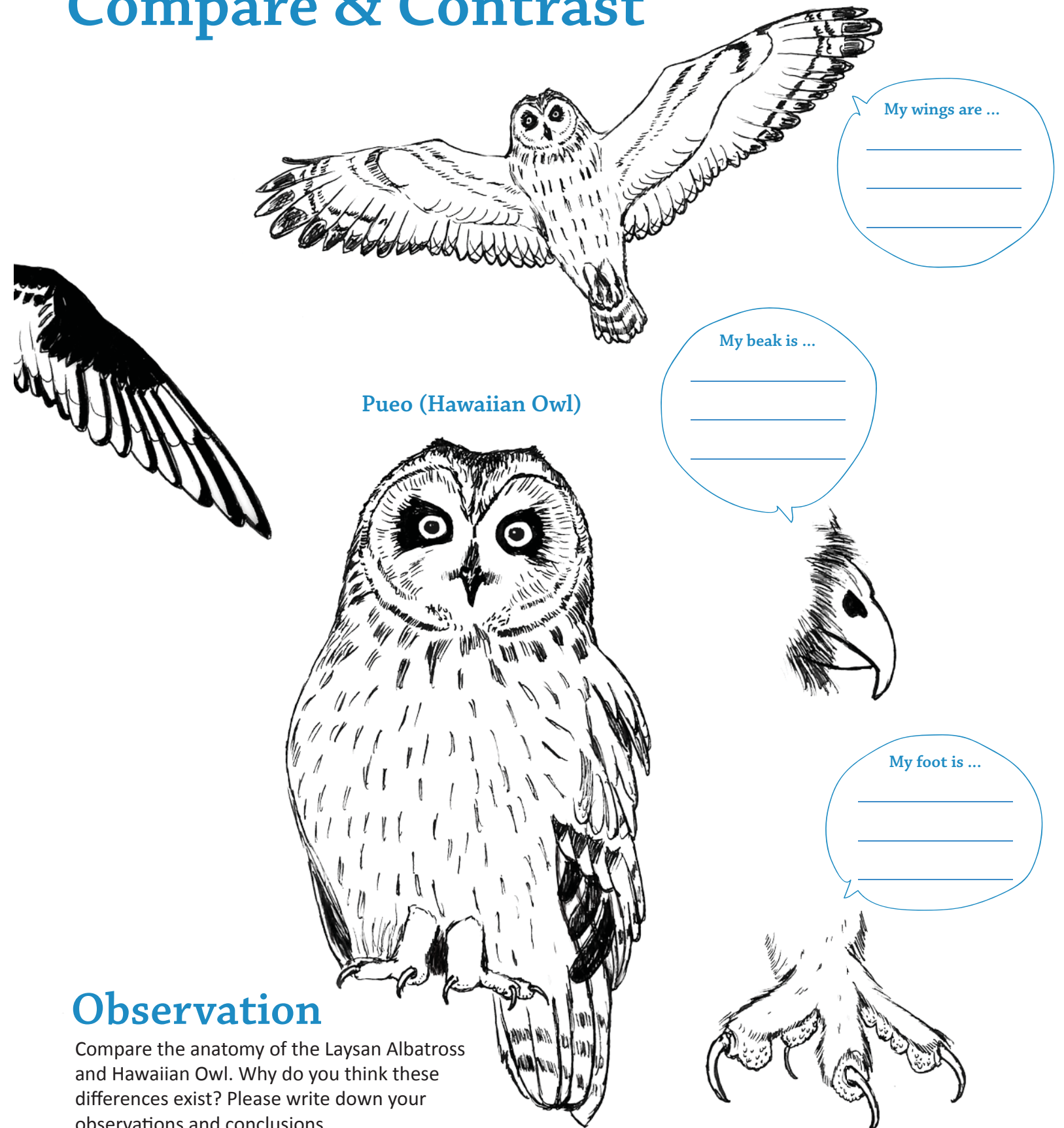
DATE (month/date/year):	
START TIME:	
END TIME:	

SHORELINE LOCATION INFORMATION				
Shoreline/Beach name:				
City and State:				
GPS coordinates at START of survey/cleanup area:	Latitude:		Longitude:	
GPS coordinates at END of survey/cleanup area:	Latitude:		Longitude:	
Width of shoreline (meters): <i>(from waters edge to the back of shoreline)</i>				meters

OTHER INFORMATION			
Date of last survey of this area (if known):			
Storm activity within the last week? (circle one)	Y	N	
If yes , please list dates and description.			
Current weather (% cloud coverage, wind speed)			

NUMBER OF PARTICIPANTS:		
PHOTOS TAKEN? (circle one)	Y	N
<i>If photos can be shared with the NOAA Marine Debris Program, please contact MD.monitoring@noaa.gov.</i>		

Compare & Contrast



Pueo (Hawaiian Owl)

My wings are ...

My beak is ...

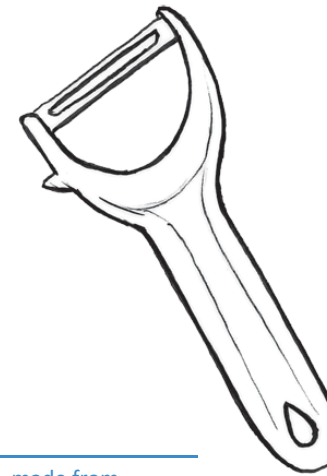
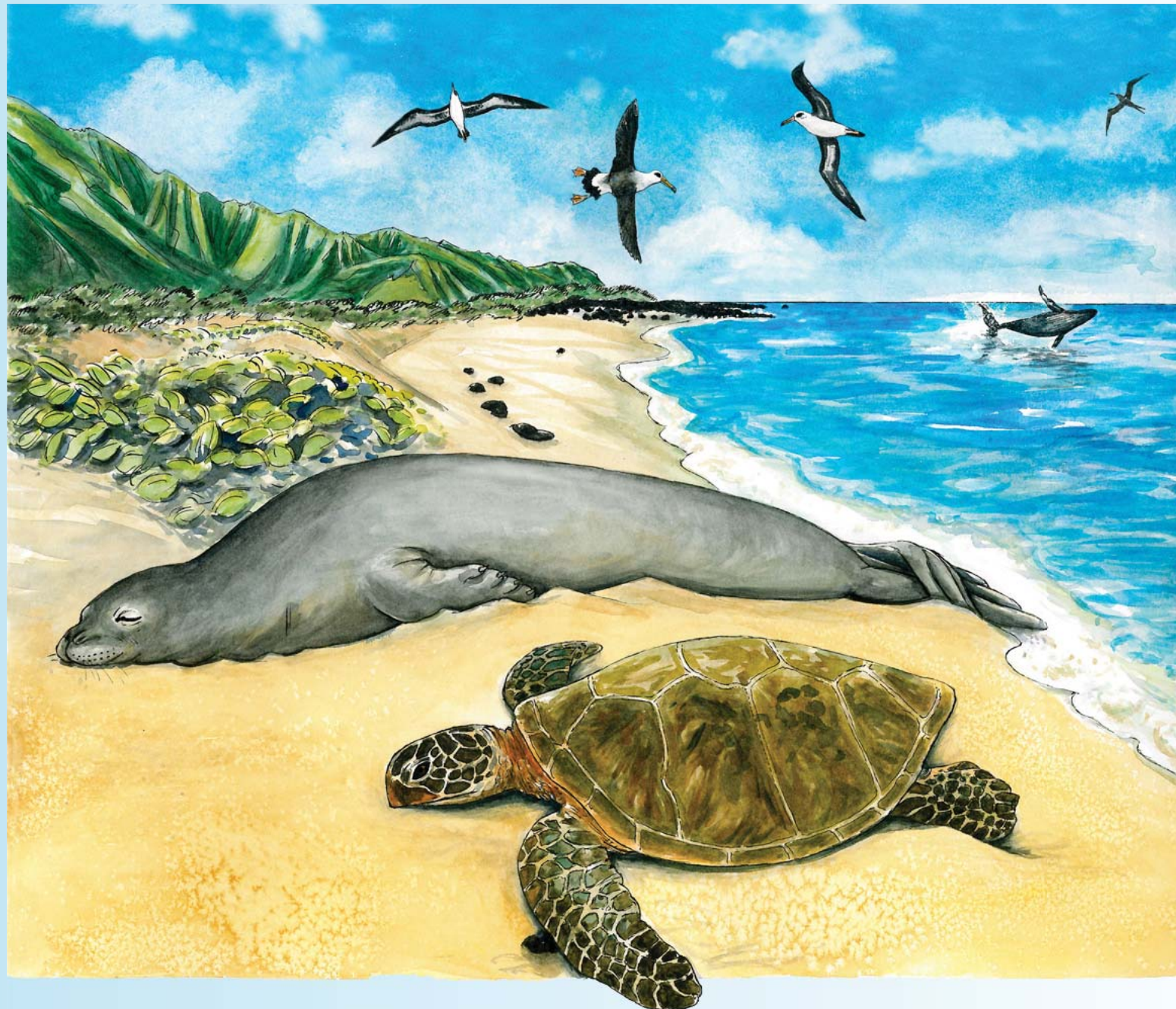
My foot is ...

Observation

Compare the anatomy of the Laysan Albatross and Hawaiian Owl. Why do you think these differences exist? Please write down your observations and conclusions.

No nā hanauna he nui, 'o Ka'ena kahi e noho ai ko'u 'ohana. Ma 'ane'i nō au i lele mua a'e ai. Ua nui nā holoholona a me nā meakanu kūikawā ma 'ane'i. Hiki ke 'ike 'ia nā 'ilioholoikauaua a me nā honu ma ke one e lala ana i ka lā.

'O ku'u mau hoa manu 'ē a'e, he 'iwa, he 'ā, a he 'ua'u kani, hiki ke 'ike 'ia lākou e kīkaha ana ma luna o nā pali ki'eki'e. Ma ka hā'ulelau, ua hiki ke 'ike 'ia nā koholā kuapi'o e ho'onanea ana i ke kai mehana a e lele ana i 'ō a i 'ane'i. 'O ka hapanui o nā meakanu i malu mai ai au i ko'u wā kamali'i, 'a'ole i loa'a iki ma kekahi wahi ma ka honua holo'oko'a.



made from

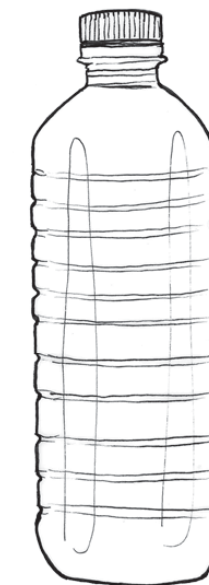


made from



Rubber

made from



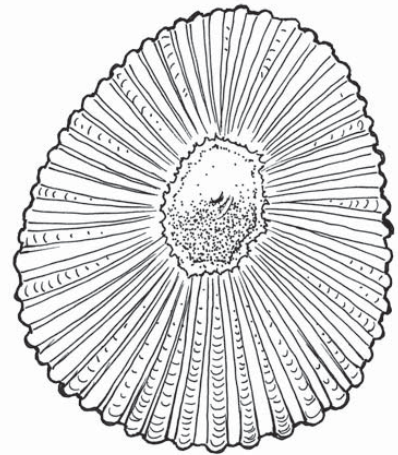
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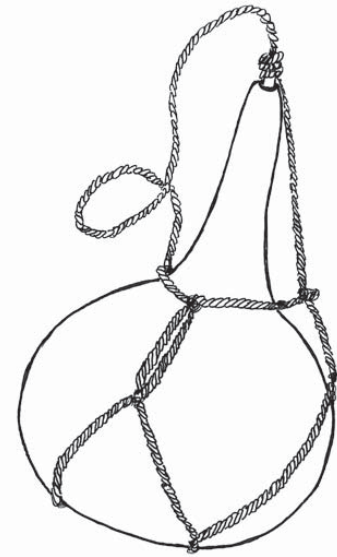
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Object Comparison

Match each Hawaiian object with its modern counterpart/equivalent.
Can you guess what each object is made from?



made from



made from

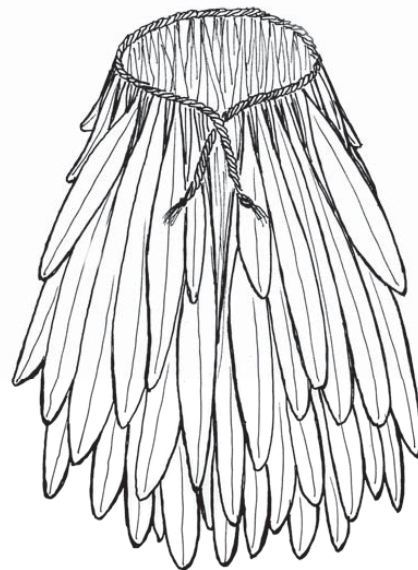


Ti leaf

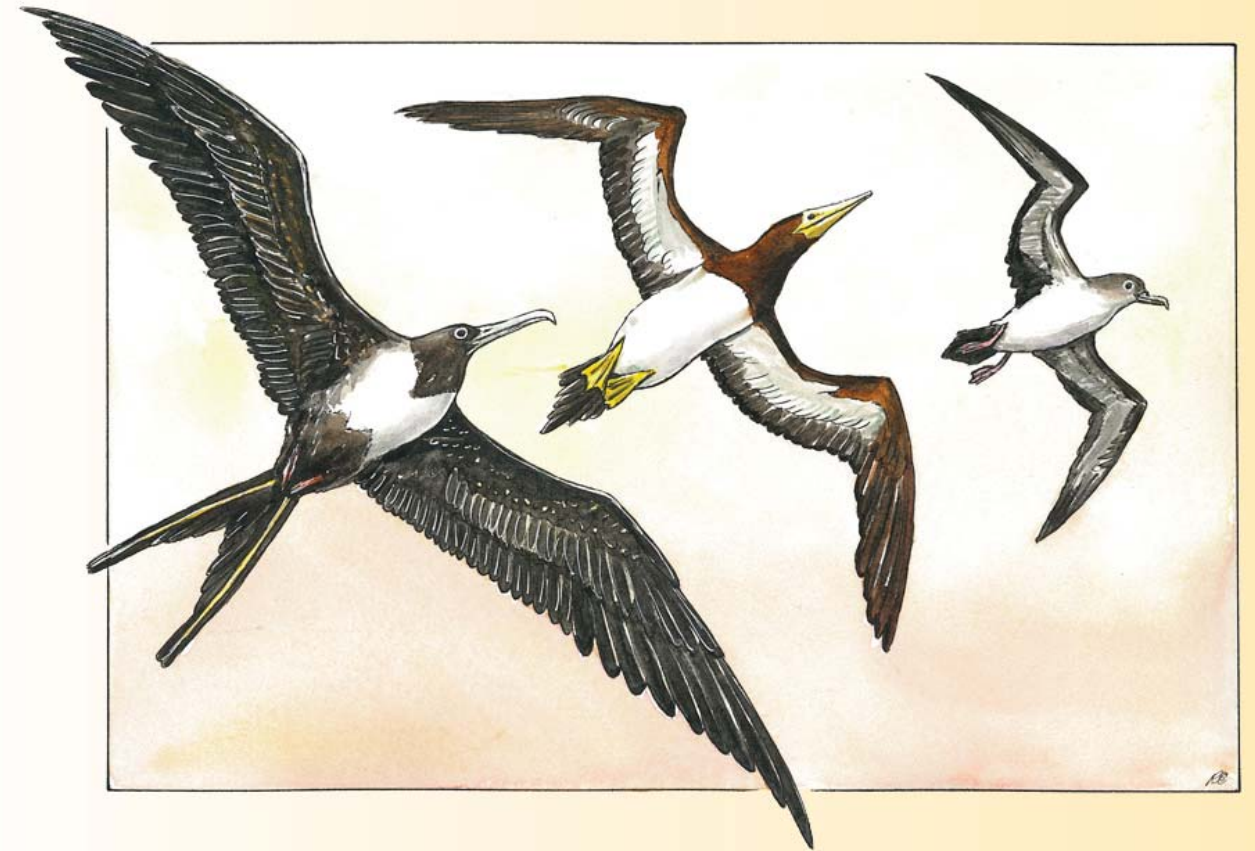
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made from



made from



For generations, my family has called Ka'ena Point home. This is where I learned to fly. Unique animals and plants inhabit this place. Monk seals and green sea turtles lie on the golden beach basking in the sun.

My feathery friends at Ka'ena Point are the Frigate bird, Brown Booby, and Wedge-tailed Shearwater who soar high across the cliffs. During the winter months, humpback whales can be seen offshore enjoying the warm tropical waters and performing aerial displays. Many of the plants that gave me shelter as a fledgling can be found nowhere else on the planet.

Coastal Restoration

Planting native plants along the coast helps to prevent erosion and create nesting areas for birds. Help restore this coastal scene by drawing the native plants pictured here.

Naupaka



Scaevola sericea

'Ōhai



Sesbania tomentosa

Naio

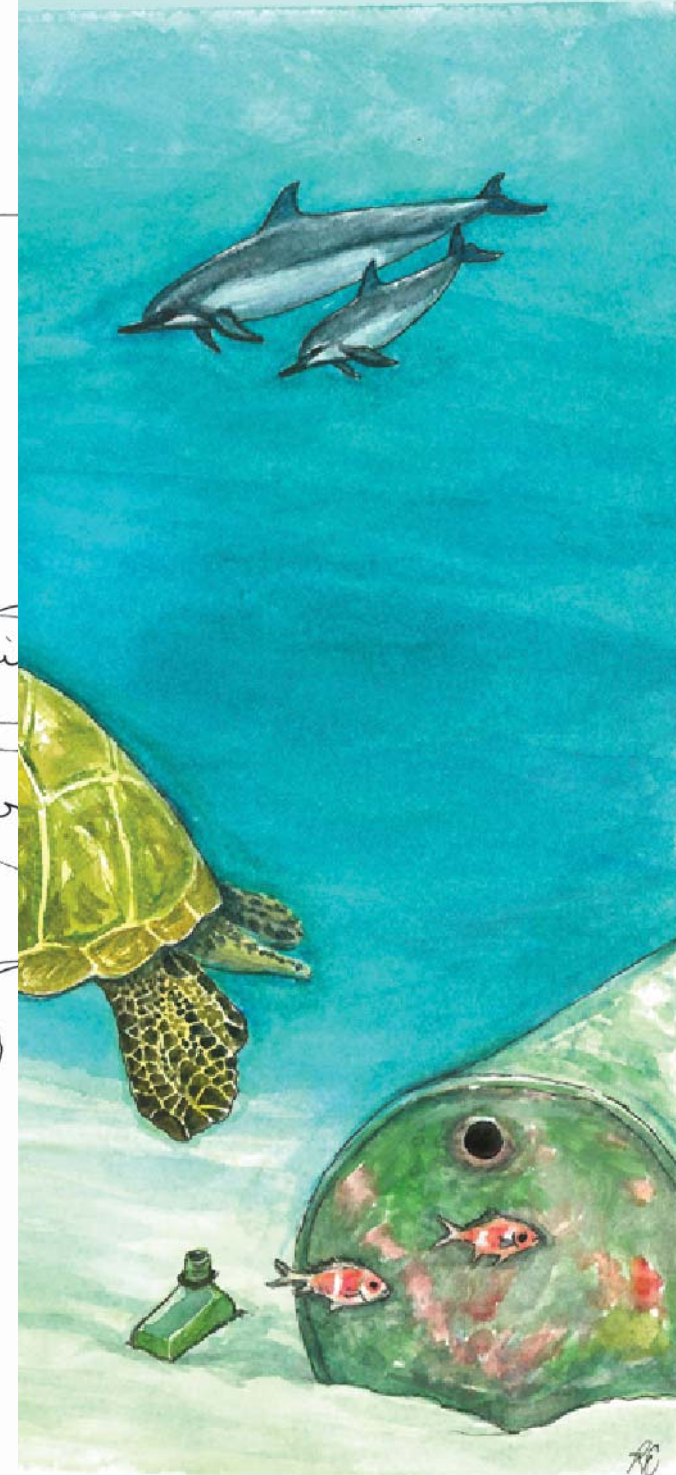
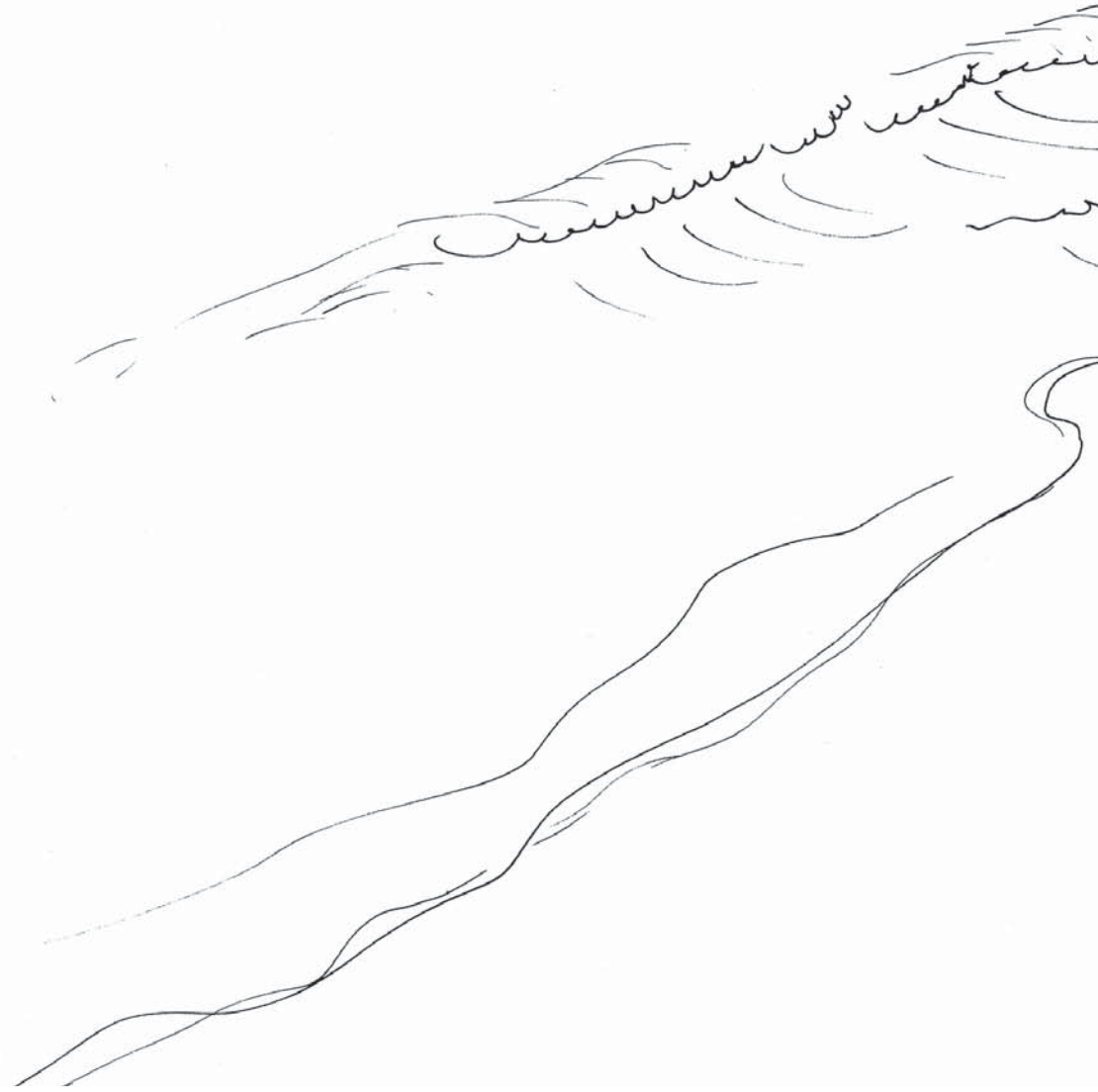


Myoporum sandwicense

'Ilima



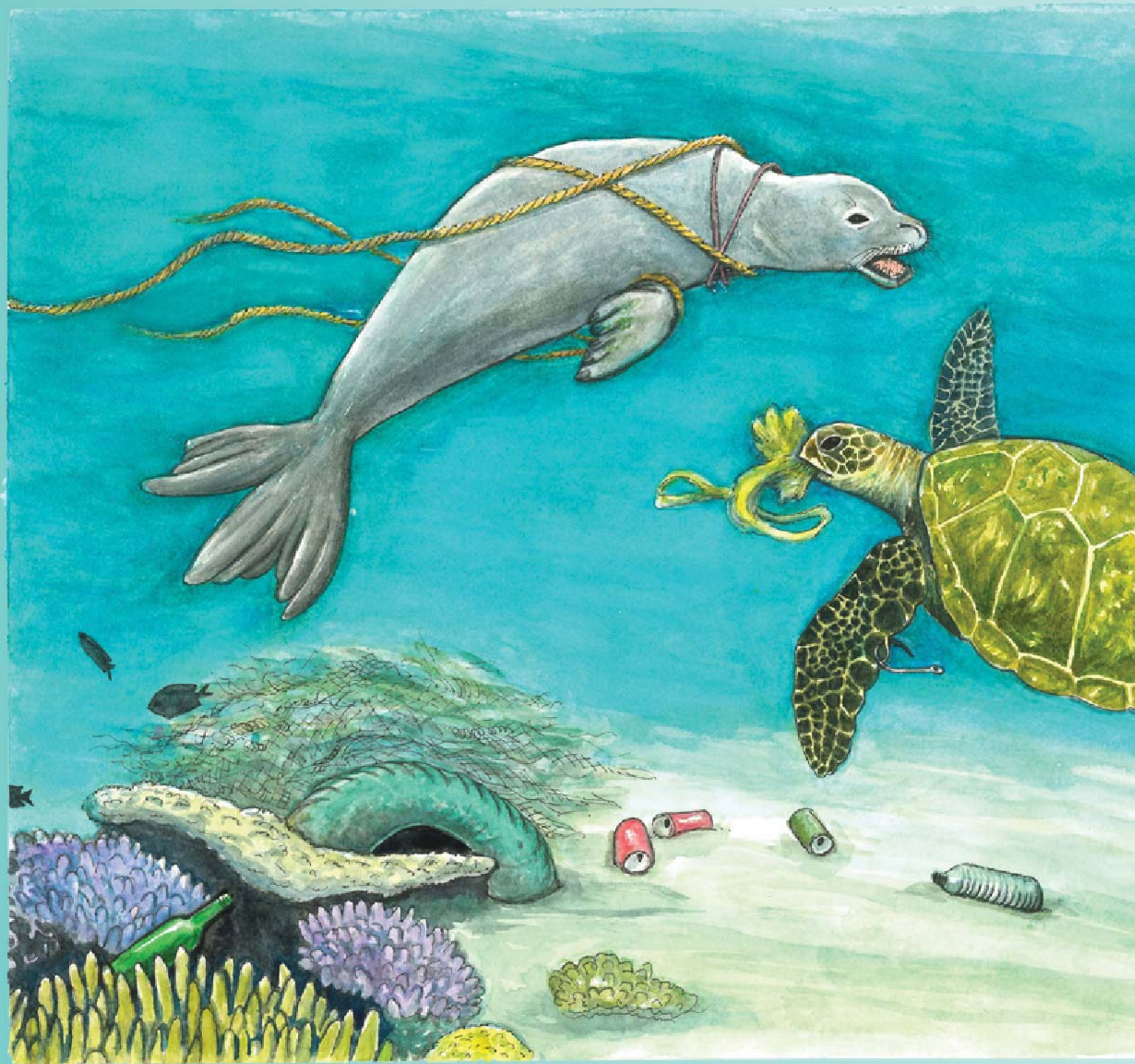
Sida fallax



‘O ko‘a nā pono hana kahiko mai nā pono hana o kēia au. Ma mua, ua hana ‘ia nā pono hana a pau me nā mea o ke ao kūlohelohe. I kēia au, ho‘ohana ‘ia nā mea maika‘i ‘ole no ka honua e like me ka ‘ea. Lana ka ‘ea ma ka ‘ilikai a koho i‘a ia. ‘Ai nā manu i ka ‘ea me ka mana‘o he i‘a ia a i ka hapanui o nā manawa, pau ka manu i ka nui loa o ka ‘ea i ‘ai ‘ia. ‘O kekahi o ko‘u mau hoa, hele a pa‘a ma nā aho a me nā ‘upena e lana i ke kai.

Today the tools have changed. The natural objects that posed no threat have been replaced by materials that never turn back into earth. In the ocean these new tools, bright and colorful, are mistaken for fish and squid and end up in the bellies of our families. Our friends have been trapped by invisible lines and tangled in ropes drifting in currents for years and years.

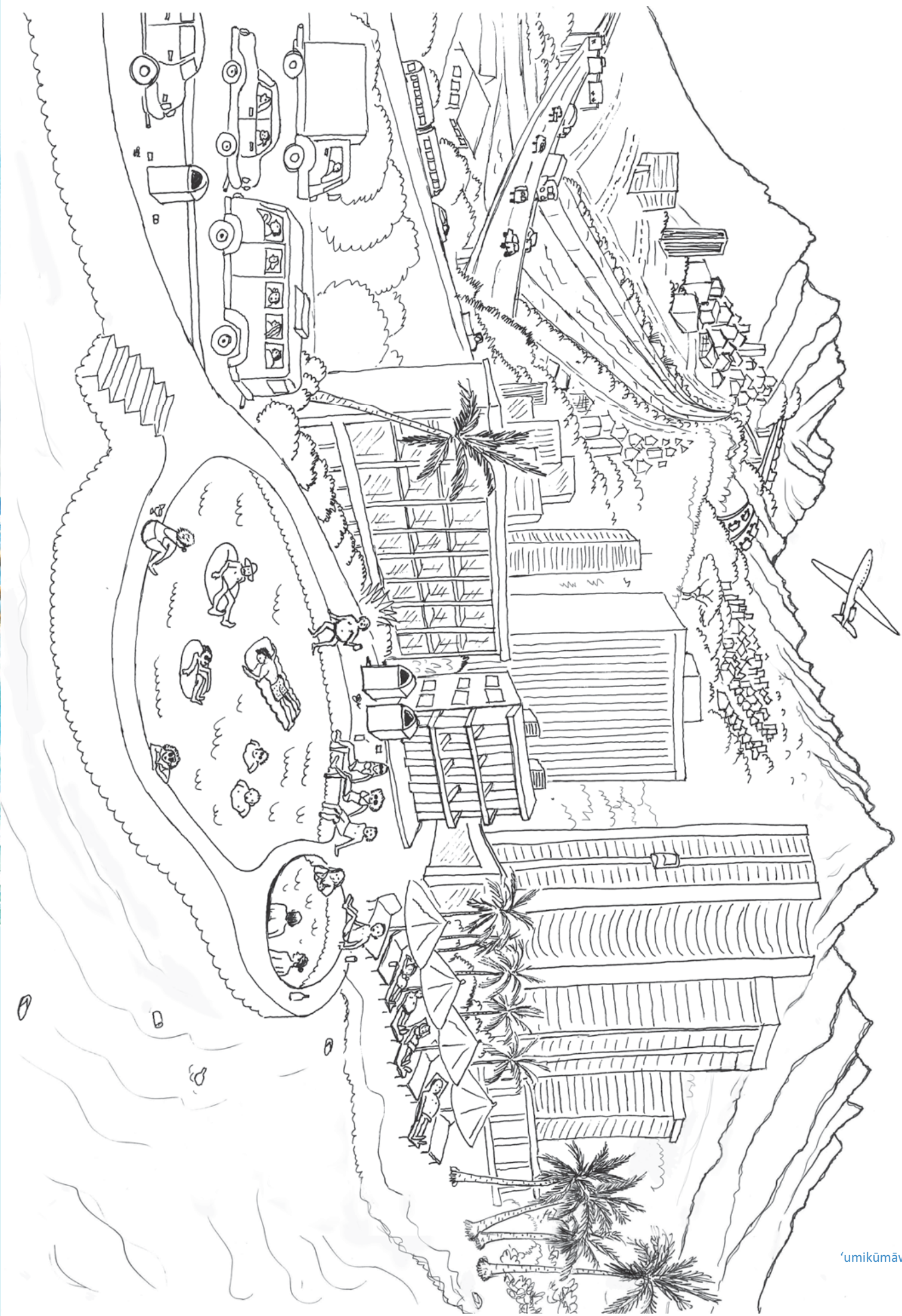


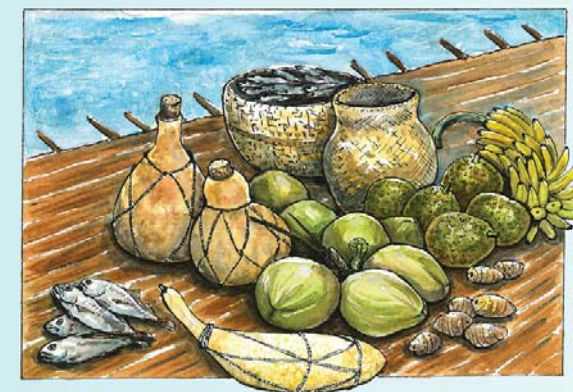
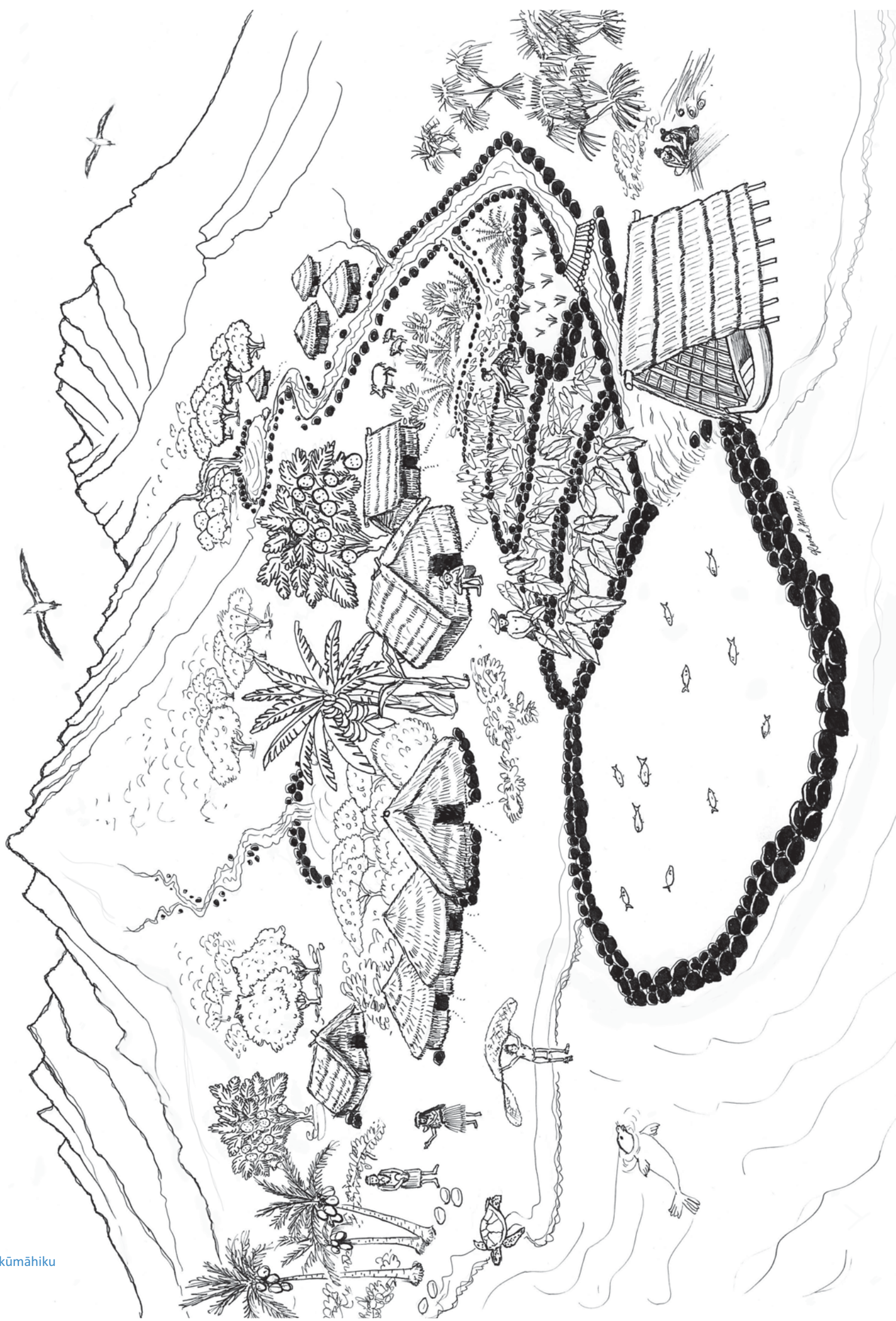




Wahi a nā mo'olelo kahiko i ho'oili 'ia iho mai nā kūpuna mai, ua huaka'i nā kānaka mua i kēia 'āina 'o Hawai'i ma luna o nā wa'a kaulua me nā pe'a i ulana 'ia. Ua ho'okele lākou ma o ke kilo 'ana i ka lā, ka mahina, nā hōkū a me nā 'ale.

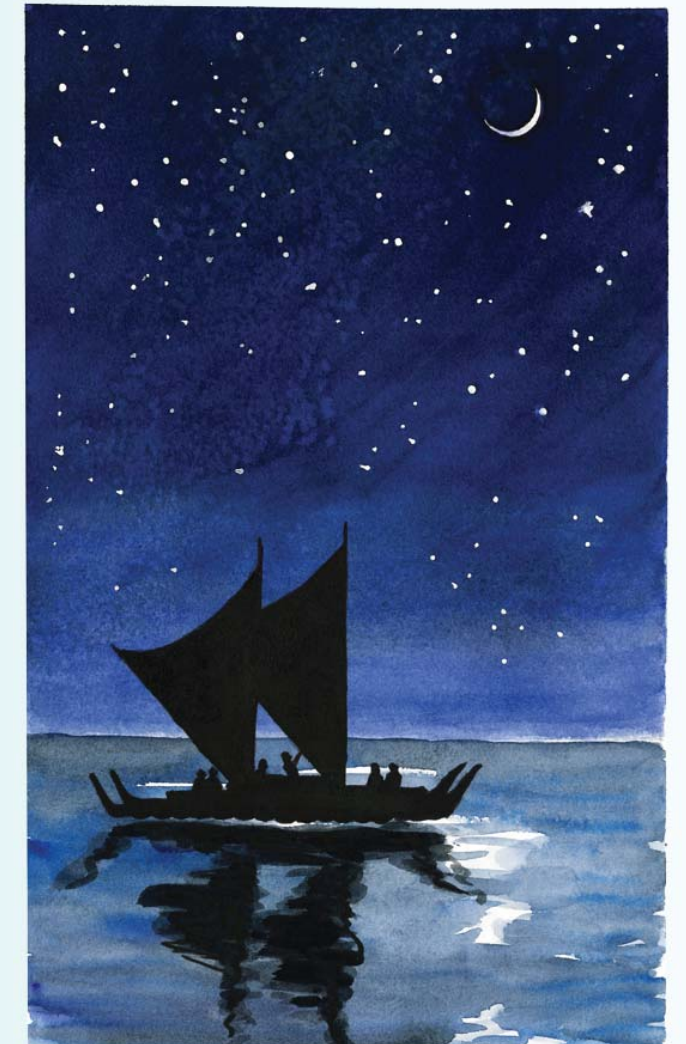
I mea e pakele ai lākou ma ia huaka'i mamao a pa'akikī, ua lōkahi nā kānaka a pau ma ka wa'a a ua ka'analike ho'i lākou i nā kumuwaiwai kāka'ikahi. 'O kēia mau ha'awina i a'o 'ia ma ia huaka'i 'ana, 'a'ole nō i waiho 'ia ma ka wa'a i ka pae 'ana mai i Hawai'i nei. Ua ho'ohana 'ia nō i loko o ko lākou noho 'ana ma kēia mau moku-puni.

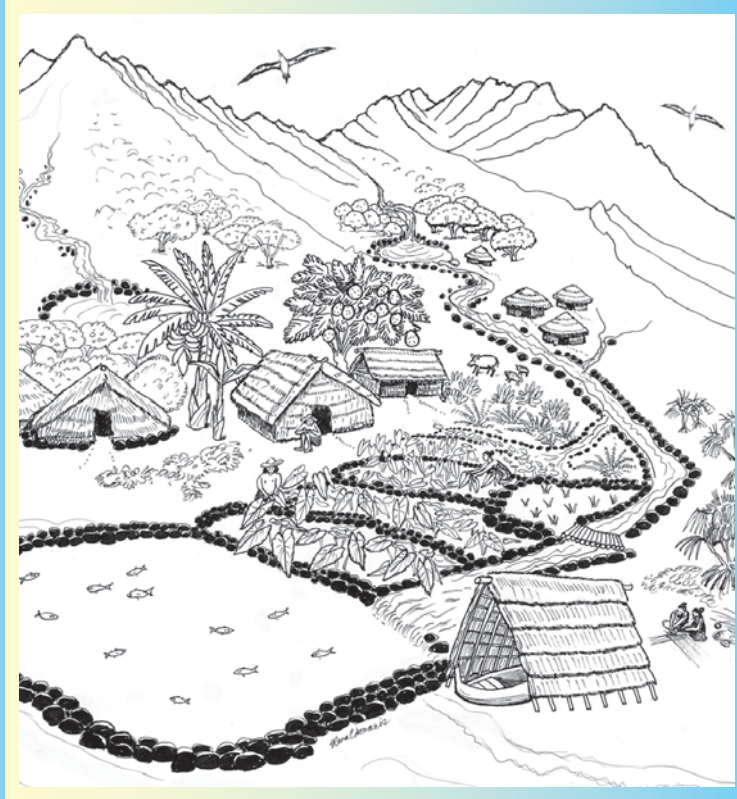




Stories passed down from my ancestors speak of the first people who arrived in this land many years ago. They traveled on large double-hulled canoes with hand-woven sails and navigated the open ocean by observing the sun, moon, stars and waves.

In order to survive the long and arduous journey to the islands, the crewmembers worked together as a team and shared the limited resources onboard the canoe. These lessons and values were not left at sea but applied to this new land they called home.





‘O ka wai kahi waiwai ko’iko’i loa ma ka huaka’i ‘ana ma ka wa’a a pēlā pū ma nā kūlanakauhale Hawai’i. No ka mālama ‘ana i kēia waiwai ko’iko’i loa, ua kālai ‘ia ka ‘āina i mau ahupua’a. ‘O ka ma’amau, ho’omaka ke ahupua’a i uka a hiki i ke kai. ‘O nā kahawai a me nā pūnāwai ka mea e ola mau ai nā kānaka o nā ahupua’a a pau.

Ua ho’ohana ‘ia ka wai o nā kahawai ma nā lo’i kalo. Ma waho o ke kanu ‘ana i ke kalo, ka ‘uala, ka ‘ulu a me ka mai’a, ua kūkulu nā Hawai’i i mau loko i’a. Ua ho’ohana ‘ia nā pōhaku, meakanu, iwi, a me nā ko’a no ka hana ‘ana i nā pono hana a me nā mea pā’ani. Ua puni nā kānaka i ka he’enalua a me ka he’e hōlua.

Fresh water was the most valuable resource on the canoe and in the villages. In order to manage this precious resource, they divided the land into ahupua’a, wedges that ran from mauka (mountain) to makai (sea). The lifelines of the communities were the streams that fed into the lo’i kalo (taro farm) and provided clean drinking water.

In addition to growing taro, sweet potato, breadfruit and bananas, the people constructed loko i’a (fish pond) to cultivate fresh fish. Tools were crafted from stone, plants, bone, and coral. Toys were also crafted and when time permitted, wooden surfboards could be seen gliding across the waves while slender sleds slipped on leaves down the sides of mountains.

Hawaiian Values

Below is a list of Hawaiian values that were important both on land and at sea. Choose two values from the list and explain why they are important in your life.

- Aloha: Love and Respect
- Laulima: Cooperation
- Kokua: Helpfulness
- Mālama: Care for
- Pono: Correctness and Fairness
- Kuleana: Responsibility
- Ho’omau: Perseverance
- Ha’aha’a: Humility

Land Management

How does the Hawaiian ahupua’a system compare with modern city scapes? Look at the two drawings on the next pages and compare and contrast how the land is used.

