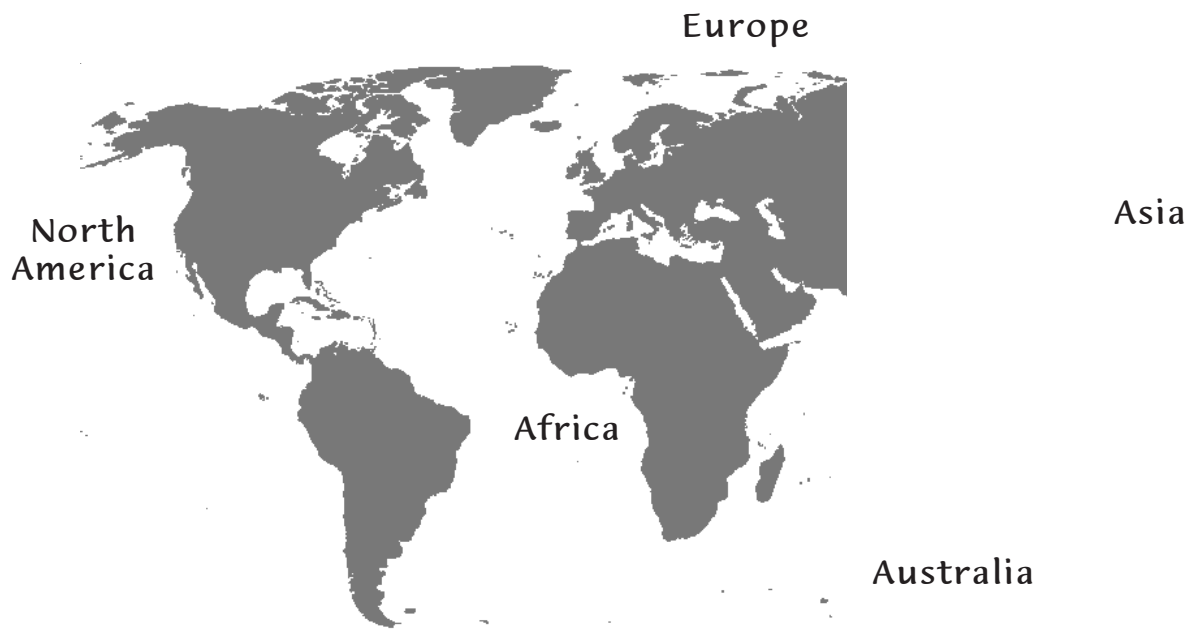


Cranes and People

Did you know that people in Australia do a crane dance, or that in Asia it is traditionally believed that cranes live one thousand years? In this section we will learn how cranes have influenced the stories, dances, art, and thought of many different groups of people, or cultures, from throughout the world. We will learn about both ancient and modern cultures in North America, Asia, Australia, Africa, and Europe, and how they have incorporated cranes into their daily lives. We will also explore the role of cranes and other animals in our lives and learn about our relationship with the natural environment.



North America

In North America, cranes play an important role in the cultural traditions of many Native American Nations, who have used crane bones and feathers for domestic and ceremonial purposes for hundreds of years and depict cranes in both ancient and modern art. Cranes are also symbols of tribal **Clans**, or extended family or kinship groups, and are important characters in many Native American myths.

In Chaco Canyon, an ancient Anasazi settlement in northwestern New Mexico, archaeologists have found crane bones that were cut and polished to form tools by the ancestors of the modern Pueblo people over one thousand years ago. These tools include awls, which were used to punch holes in leather and other materials, and hollow tubes that may have been used as beads or other ornamental items. The Crow and northern Cheyenne of Montana also modified crane bones, making small whistles, which they blew in preparation for battle, from the wing bones of sandhill cranes. Today, the Pueblo cultures of Arizona and New Mexico continue to use crane feathers in their religious ceremonies. In Arizona, the Navajo make medicine pouches from the heads of sandhill cranes and use crane bills as medicine spoons.

In the American Southwest, depictions of cranes are also found in rock art, ceremonial murals, and on ceramic vessels. In rock art, both **petroglyphs** and **pictographs** representing flying cranes, crane tracks (which are possibly Clan symbols), and standing cranes were painted and carved by Native Americans. The pictograph of flying cranes in the figure to the right is from the Nogales Cliff House in northcentral New Mexico. The settlement was occupied in the mid 13th century by members of the Gallina Culture.

For several Native American cultures, the crane is a **Clan totem**, or a symbol or emblem of a family or kinship group. For example, the Hopi Tribe of Arizona have a Crane Clan and the Sandhill Crane Clan is one of the many clans in the Zuni Pueblo in New Mexico. The 'Ah-ji-awak,' or Crane, is also one of the original seven Clans of the Ojibway in the Great Lakes region in eastern North America. In the Ojibway culture, the Crane and Loon Clans traditionally serve as tribal leaders. Members of Crane Clans have an intimate relationship with cranes and often have many images of cranes in their homes.

Under the American Indian Religious Freedom Act

enacted in 1978, U.S. federal law protects the traditional rights of Native Americans to use crane feathers and other parts of these birds for religious purposes.

A **pictograph** is a picture or drawing painted on a rock, and a **petroglyph** is a picture that is carved on rock.



A pictograph of flying cranes
Nogales Cliff House,
New Mexico
courtesy of Stewart Peckham

Prehistoric **rock art** depicting cranes is also found in **Africa, Australia, and Europe.**



MYTHS AND FOLKLORE

Myths play an important role in all cultures. A **myth** is a traditional story that explains our history, our daily lives, or our experiences. For example, a myth may describe how our ancestors came to live where we live today or explain things that we observe in nature. These stories are also important reminders of our cultural heritage and may include culturally important morals and values. In many cultures, the **elders**, or older members, teach these traditional stories to younger members of the group. Many myths have been passed down orally for many generations and only recently have been collected in books and other written collections.

The following story is from the Cree Indians, who live in central Canada in Saskatchewan. Today, the sandhill crane lives in this area during the summer. This area of western Canada was also within the historic breeding range of the whooping crane, although these white cranes no longer breed in the area today.

The story explains why the whooping crane has long legs and a red patch on the top of its head. The story also explains why you may see a rabbit riding on the moon if you look carefully at the full moon – the Cree version of the “Man on the Moon” story!



Read the Cree story, “How Crane got his Long Legs.” After reading the story, write your own myth or story describing something that you have observed in nature. For example, why does the crane have a long neck, a raccoon wear a mask, or a buck have antlers?



HOW CRANE GOT HIS LONG LEGS

One day long ago Rabbit thought to himself, "I should like to ride on the moon." He looked at the full moon as it came up from the edge of the eastern sky. He watched the moon go up in the sky above him and he watched the moon move across the night sky. Rabbit watched the moon until day came and he could not see the moon any longer.

"If I stand on the high hill at the edge of the world," Rabbit said, "I will be able to get hold of the moon when it comes up."

That night Rabbit stood on the high hill. The moon came up slowly. It was so large in the sky that Rabbit reached out to touch it. He stood on his hind legs, and reached for the moon. He stretched his front legs as far as he could to seize hold of the moon. The moon was too far away. It climbed into the sky and Rabbit watched it, but he could not reach it.

"I will get one of the birds to carry me to the moon," Rabbit said and he went to Eagle. "Carry me to the moon, Eagle," Rabbit said, "I want to ride on the moon, but I cannot reach it. I will pay you if you will take me to the moon."

"No," Eagle said, "I cannot carry you to the moon. It is too far. I cannot."

Rabbit went to Hawk. "No," Hawk said, "I have other business to attend to. I cannot carry you to the moon."

Rabbit went to all the great flying birds. The great flying birds would not carry him to the moon. Rabbit went to the small flying birds. The small flying birds laughed. "You are too big for us to carry you to the moon," they said. "The moon is too far from the earth, we cannot carry you to the moon."

Crane heard Rabbit. "I will try to carry you, Rabbit," Crane said. "Hold on to my legs and I will see if I can fly with you to the moon."

Rabbit did as Crane said. Crane rose into the sky. Rabbit was heavy. Crane spread his great wings. It was all the Crane could do to fly with Rabbit. Rabbit looked down at the earth below. It was very small and it was very far away. It was all that Rabbit could do to hold on to Crane, but he did. Crane came to the moon. "Rabbit," Crane said, "I have done it." Rabbit stepped onto the moon. Then he touched Crane's head. The crown of the crane's head became red under Rabbit's hand. "This is my gift," Rabbit said. "From this day you will wear a headdress of red."

So it was. From that day Crane has a red headdress, and his legs are long. They are longer than the legs of other birds. They were stretched from the weight of Rabbit when Crane carried him to the moon. And if you look when the moon is full in the sky, you will see that Rabbit is still riding on the moon.

From Belting, Natalia. "How Crane Got His Long Legs." In *The Long-Tailed Bear and Other Indian Legends*. The Bobbs-Merrill Company, Inc., Indianapolis, 1961.



PEOPLE AND THE NATURAL ENVIRONMENT

What do you know about the plants and animals around your home or school? Can you identify an aster or maybe a sandhill crane? Our knowledge about our natural environment may be gained through reading and research in school, but it also develops from daily observations in our yards, city parks, and other natural areas near our homes and schools. For example, where did you learn about the life cycle of a frog? You probably have studied the life cycle of frogs in your science classes in school. However, you may also collect tadpoles in a neighborhood creek during the summer and learn about the development of frogs through these direct observations.

The following excerpt is from an account by a member of the Cree Red Earth Band in western Canada on the history of whooping cranes near the Red Earth Indian Reserve in Saskatchewan. The whooping crane no longer breeds in this region today, but the birds still lived in the region when the reserve was created in mid 1800s. The individual's account describes observations of the whooping crane, or *waapichichaak* in Cree, made by himself when he was a young man in the early 1900s and by his grandfather, possibly in the late 1800s. Note that he describes the habitat where the crane lives, its nesting behavior, hunting of the whooping crane by the Cree, and the eventual disappearance of the whooping crane from the region.

Historical accounts such as this excerpt may be used to piece together information about the past distribution or population of a wildlife species. These accounts also provide direct observations of how people in the past utilized the natural resources in their environment, and how these actions may have influenced the distribution and population of wildlife today.



Asters are native prairie plants in North America.

What does this account tell you about the relationship between the Cree and the natural environment? To answer this question, think about the observations made by the young man and his grandfather about the animals and plants near their home. What do they know about the natural resources on their land and how do they use these resources?

Drawing from information in the account, why do you think the whooping crane is no longer found in the area today?



WHOOPING CRANES IN THE RED EARTH REGION

BY SILAS HEAD

"My grandfather saw whooping cranes here a long time ago in the spring. They were walking in the water on the edge of the marsh. That was before the willows grew up there. My grandfather, Okimawipimotew, tried to kill them but he couldn't do it. He got very close but they flew before he shot. Miikwanaakeskam [another member of the Tribe] said he saw lots of white cranes out on the prairies before the white men came.

When I was a young man there were a few whooping cranes around Kennedy Creek to the north of here. We saw them just about every summer. One time, long ago, I was with a hunting party that was after moose on Kennedy Creek. One of the old men, Samuel Nawakayas, knew that we were there and he left Red Earth to come and join us. On his way he noticed some whooping cranes, two of them, and he went over to have a closer look, not able to shoot either of them. While he was there he found their nest. It was not a very good nest, just a few sticks on the ground in the swamp. He found three* eggs in the nest and he took them to be eaten. When he found us at Kennedy Creek, he told us about the cranes and the eggs.

In the 1930s there was a big forest fire, which burned throughout the whole territory to the north of Red Earth. It came from the west, from the farming settlement, and it burned across Kennedy Creek and as far east as the Sipanok Channel. After the fire we didn't see the whooping cranes anymore."

*Commenting on the number of eggs found in the nest, the authors note that normally whooping cranes lay only two eggs. However, they also note that there have been recorded reports of whooping crane nests that contain three eggs.

Reprinted with permission from "Indian Bird Identification and Whooping Cranes at Red Earth, Saskatchewan," *Blue Jay* 32(3), 1974 by David Myer, Silas Head, and Donald McKay.

ACTIVITY 1:

Write an account based on your personal observations of an animal's behavior or habitat. You might choose to describe the activities of songbirds at your family's birdfeeder, or describe the behavior of a game animal that you have observed while hunting. Do you live near wild cranes? If so, describe their daily activities that you have observed, such as where they roost, or sleep, at night, where they feed during the day, or how they raise their young.

ACTIVITY 2:

Interview your grandparents or another older relative or family friend about an animal that they observed as children. Where and when did they see the animal? Do the animals still live in the areas where they remember seeing them as children? If not, why do you think the animals are no longer found in these areas?



Asia

For thousands of years, the crane has been an important cultural symbol in Asia. In Japan, the *tancho*, or crane, is believed to live one thousand years and symbolizes health, long life, good luck, and courage. Because cranes are believed to pair for life and live for many years, it is also symbolic of a happy marriage in Asia. The crane is often embroidered on wedding **kimonos** in Japan and is a popular subject for wedding gifts. In Asia, the crane is further believed to be a messenger of the gods. In China and Vietnam, it is thought that the crane carries the souls of the dead to heaven or paradise after death.

Cranes are widely depicted in Chinese, Japanese, and Korean art and literature. Cranes appear on ceramics, prints, and textiles and are the subjects of poems, myths, and even a Japanese opera based on the play *Yuzuru*, or *The Evening Crane*.

Modern symbolism of the crane in Asia reflects the continuing importance of the crane throughout the region. The red-crowned crane is the symbol for Japan Airlines and many modern commercial products. The crane is also a modern symbol of happiness and peace in Asia.

Birds as Symbols

Can you think of ways in which a crane or other bird is a symbol in your life? For example, the bald eagle is the national bird of the United States and is a symbol of our country. Other examples may include a school or sport team's mascot, such as the Arizona Cardinals or Atlanta Falcons. Why do you think people choose birds as team mascots or as other symbols?

A **kimono** is an ankle-length, garment worn by both men and women in Japan. The style of a Japanese kimono is similar to that of a robe. Like a robe, a kimono does not have buttons or zippers and is instead closed with a sash called an *obi*.

In Asia, traditional exercises, such as **karate** and **tai chi**, copy the graceful movements of cranes. For example, the most difficult kata, or position, in karate is called the crane kata.



A stylized red crowned crane is the symbol for Japan Airlines

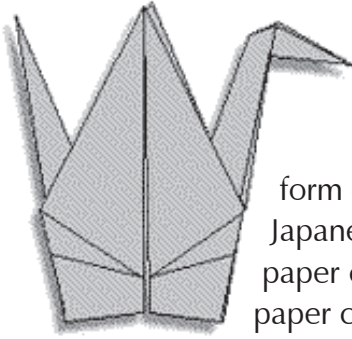


Japanese family crest depicting three intertwined cranes

From *The Japanese Crane: Bird of Happiness*, by Dorothy Britton/Tsuneo Hayashida. Copyright © 1981, 1993 by Kodansha International Ltd. Reproduced by permission. All rights reserved.



Cranes for Peace



In Japan, both children and adults fold small pieces of paper into the form of cranes and other animals in **origami**, the art of paper folding. The Japanese believe that a long life will be granted to those who fold one thousand paper cranes. It is a popular custom in Japan to string together one thousand paper cranes, which are given to friends who are ill to wish them good health, or hung in temples and shrines to ask for other wishes to be granted. The paper crane has further become a symbol of the hope for world peace in Japan. This symbolism is portrayed in the popular story of Sadako Sasaki, a young girl from Hiroshima, Japan.

On August 6, 1945, the United States dropped an atomic bomb on Hiroshima in an effort to end World War II. In a few moments, over 200,000 people were killed in the blast. Sadako was only two years old when the bomb fell on her city. She seemed to be uninjured by the blast and grew into a happy, energetic child. Unfortunately, nine years later she developed leukemia, a disease caused by radiation from the bomb. While in the hospital, a friend brought her a paper crane and told her its story and symbolism. The story gave Sadako new hope, and she started folding the paper cranes with new energy.

Sadly, however, she died in October 1955 with only about half of her cranes completed. After her death, Sadako's friends and schoolmates completed folding the thousand paper cranes for Sadako. With the hope that future wars could be avoided, the children collected money to build a monument to Sadako and the cranes. Now, at the Peace Park in Hiroshima, the statue of a young girl representing Sadako holds a golden crane in her outstretched arms. Each year, people from all over the world fold paper cranes and send them to Hiroshima. On August 6, Peace Day, the children of the city hang the paper cranes from the monument, hoping that the cranes will carry their message to people everywhere:

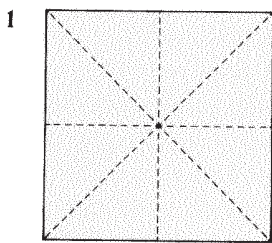
This is our cry
This is our prayer
Peace in the world

For more information about Sadako's life and the establishment of her monument at the Peace Park in Hiroshima, visit the Sadako and the Thousand Paper Cranes website at www.sadako.com. You also may like to read the book, *Sadako and the Thousand Paper Cranes*, by Eleanor Coerr, which describes Sadako's life, her struggle against leukemia, and her hope to fold one thousand paper cranes.

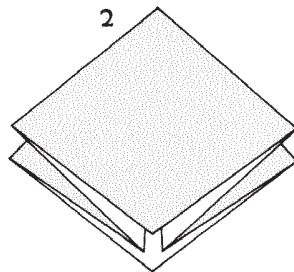


Use the following directions to fold your own paper cranes, and you, too, can fold cranes for peace. An 8-1/2 inch square of medium weight paper is a good starting size. You and your class or school can also fold paper cranes to send to the Peace Park in Hiroshima. Create garlands of 100 cranes each by stringing the cranes together with a fine string or line through the crane's bodies and mail them to the Children's Monument, Office of the Mayor, City of Hiroshima, 6-34 Kokutaiji-Machi, 1 Chome Naka-ku, Hiroshima 730, Japan.

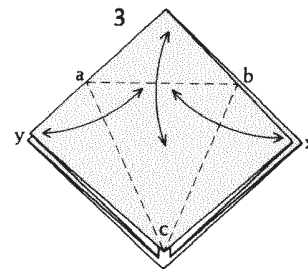
PAPER CRANE



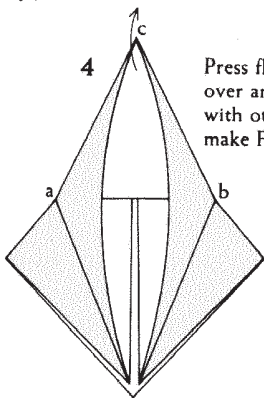
1 Crease diagonally in both directions, then turn square over and crease in half both ways. (If using paper colored on one side only, begin with colored side up.)



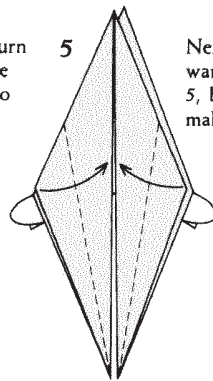
2 Bring four corners together and press flaps down to form square as shown in Fig. 2.



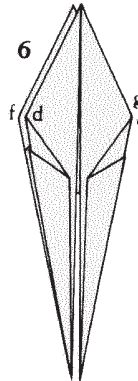
3 Now make three good creases along dotted lines a-b-c by first aligning c-x and c-y with central crease. Open up again as in Fig. 3. Then lift up and fully extend point c (top sheet only, holding lower sheets down with finger), pulling it back all the way using a-b crease (see Fig. 4).



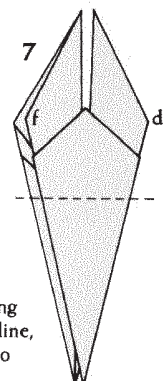
4 Press flat, then turn over and do same with other side to make Fig. 5.



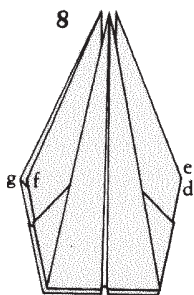
5 Next, fold sides inward, as shown in Fig. 5, back and front, to make Fig. 6.



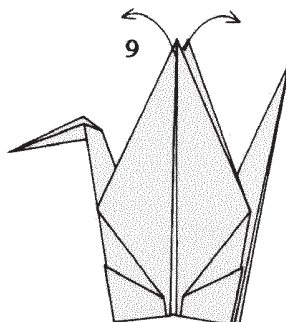
6 Bring points d and e together in front and f and g together behind to make Fig. 7. Press flat.



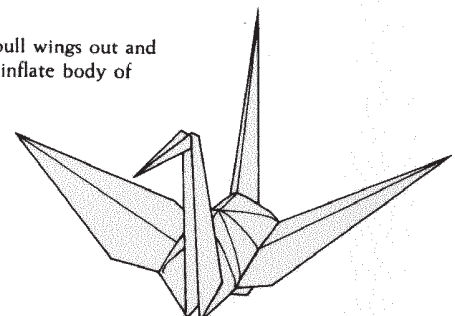
7 Now fold up along crease at dotted line, back and front, to make Fig. 8.



8 Then bring points f and d together in front and g and e together behind. Press flat. Pinch base with right hand while left pulls neck out slightly. Then pinch base with left hand while pulling out tail with right. Now fold down and pull out beak, pinching head. See Fig. 9.



9 Finally, pull wings out and down to inflate body of crane.



From *The Japanese Crane: Bird of Happiness*, by Dorothy Britton/Tsuneo Hayashida. Copyright © 1981, 1993 by Kodansha International Ltd. Reproduced by permission. All rights reserved.





HAIKU

*Cool seascape with crane
Wading long-legged in the pools
Mid the Tideway dunes.*

The above poem is a **haiku**, a style of Japanese poetry, which was written in the 17th century by the famous Japanese poet Basho. A haiku consists of three lines, with five syllables in the first and third lines and seven syllables in the second line. A haiku typically describes something in nature that the author is familiar with and refers to a particular season. For example, the above haiku describes cranes along the coast of the Japan Sea in the summer.

Write a haiku about a crane or another animal or plant that you have observed. Remember, write about something that you have seen personally, such as a sandhill crane flying over your house in the summer or a chickadee flitting through the trees in the winter. Try to express to the reader the emotions that you felt as you observed your subject. For example, did you feel peaceful, excited, or happy? When expressing your emotions, don't just write "I feel peaceful." Instead, try to convey these feelings through your description of the subject.



CRANES AND MUSIC

A **lute** is a stringed musical instrument that was developed over two thousand years ago. In China, it is believed that cranes enjoy lute music and will dance when they hear music played on the stringed instrument. The lute and the crane are also associated with scholars, who are said to appreciate the graceful movements and dignified behavior of the crane.

Several songs have been composed about the crane for the lute. The songs describe the crane's behavior, and the notes of the song often mimic the calls of a crane. For example, the lute song, "Cranes dancing in the sky," describes the flight of cranes, while "Cranes crying in the marshes" compares the calls of the crane with the tones of the lute.

There is also a strong connection between another traditional instrument, the Japanese **flute**, and the crane. For example, the lives of cranes are the subject of a song entitled "*Tsuru no sugomori*," or "The nesting of the cranes," that is composed for the Japanese flute. The piece describes the life cycle of cranes, from their courtship, to the hatching and raising of young, and ultimately the death of the adult cranes. As in the pieces composed for the lute, the flute songs also include imitations of crane calls that are produced using special techniques.



A man playing a Chinese lute

Figure from R.H. van Gulik, *The Lore of the Chinese Lute*, Tokyo: Sophia University, 1969, page 5.

PREHISTORIC MUSIC

Chinese archaeologists recently discovered several flutes made from the **ulnae**, or wing bones, of the red crowned crane that are between 7,000 and 9,000 years old. The researchers found six complete flutes and fragments of at least thirty more flutes - all made from the wing bones of cranes.

The flutes were found in the remains of an ancient settlement named Jiahu, which was occupied between 7,000 and 5,700 B.C., in mid-Henan Province located in eastern central China.

Do you know why it is possible to make a crane bone into a flute? (Hint: cranes have very light bones)



Australia

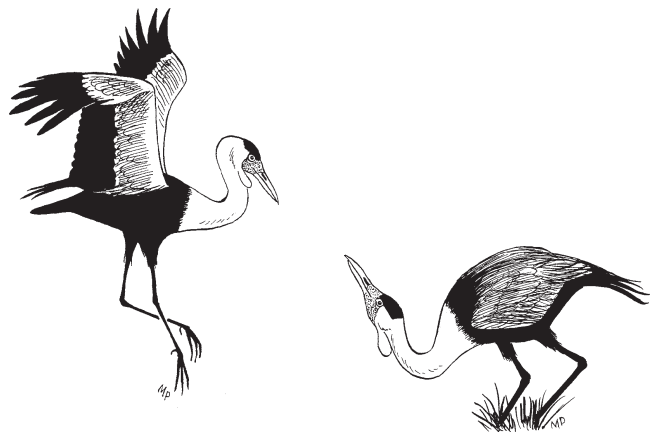
Did you know that cranes dance? Cranes dance to express happiness, to relieve stress, and as part of their courtship behavior. All species of cranes dance, and both unmated cranes and pairs dance. The dance consists of a series of coordinated leaps, bows, wing flapping, and tossing small sticks, feathers, or other objects into the air.

Many cultures throughout the world have also incorporated dances that copy the graceful movements of cranes into their traditional ceremonies and dances. Crane dances are performed by cultures in North America, Africa, the Mediterranean, China, Siberia, Japan, and Australia.

People have been performing crane dances for thousands of years. For example, people in western Sweden painted pictographs of dancers performing a crane dance over 5,000 years ago! In Australia, the Aboriginal people have incorporated crane dances into their *corroborees*, or traditional ceremonies that reenact the history of tribes. In one Aboriginal tribe in Australia, only the men perform the "Dance of the Brolga." The men paint their bodies with traditional designs and wear a headdress made of bird feathers. As they dance, they mimic the calls of the crane and copy the movements of the bird using their bodies. In contrast, among the Ainu of Japan, the women perform the crane dance. The Ainu women hold their shawls around themselves to look like the wings of a crane and, like the Aboriginal people, copy the calls of the crane as they dance.

In Australia, the crane is a subject of the art and myth of the **Aboriginal people**, the first inhabitants of the continent. Archeologists believe that the Aboriginal people of Australia migrated there from the Indonesian islands approximately 50,000 years ago. Throughout these centuries, the Aborigines developed a rich cultural tradition tied to their natural environment.

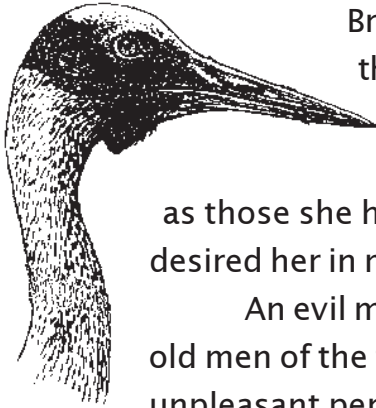
The stories, art, songs, and dances of Australia's indigenous people describe the origin of their world and the animals and plants of Australia. The story on the following page explains the origin of the brolga, a crane which lives along the northern and eastern coasts of Australia. The story describes the transformation of a young girl named Brolga, who loved to dance and was admired by many people, into a crane by an evil magician. The crane, which continued to dance like the girl, was given the name brolga by the girl's tribe.



African wattled cranes
leaping (above)
and bowing (right)



BROLGA, THE DANCING GIRL



Brolga was the favorite of everyone in the tribe, for she was not only the merriest among them, but also their best dancer. The other women were content to beat the ground while the men danced, but Brolga must dance; the dances of her own creation as well as those she had seen. Her fame spread and many came to see her. Some also desired her in marriage, but she always rejected them.

An evil magician, Nonega, was most persistent in his attention, until the old men of the tribe told him that, because of his tribal relationship and his unpleasant personality, they would never allow Brolga to become his wife. "If I can't have her," snarled Nonega, "she'll never belong to anyone else." For already he had planned to change her from a girl into some creature.

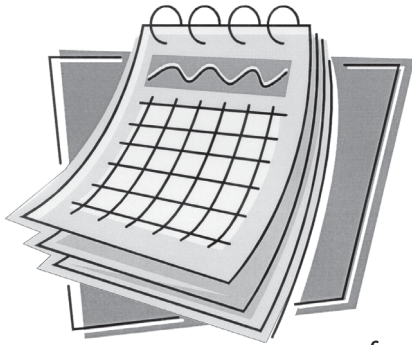
One day, when Brolga was dancing by herself on an open plain near her camp, Nonega, chanting incantations from the center of a whirlwind in which he was travelling, enveloped the girl in a dense cloud of dust. There was no sign of Brolga after the whirlwind had passed, but standing in her place was a tall, graceful bird, moving its wings in the same manner as the young dancer had moved her arms. When they saw the resemblance everyone called out "Brolga! Brolga!" The bird seemed to understand and, moving towards them bowed and performed even more intricate dances than before.

From that time onward the Aborigines have called that bird brolga, and they tell their children how the beautiful girl was transformed into the equally beautiful gray bird, which still dances on the flood plains of northern Australia.

From Roberts, Ainslie. "Brolga, the Dancing Girl." In *The Dawn of Time: Australian Aboriginal Myths in Paintings*. Rigby Limited, Adelaide, Australia, 1969.



AS TIME GOES BY...



Different cultures have developed different ways to record time. Many people in the world today use a calendar based on the movement of the Earth and other planets and stars. For example, our calendar in the United States is based on a solar year, which is divided into twelve months that in turn are divided into weeks and days. Calendars help us keep track of important days or seasons, such as our birthdays, the last day of a sports season, or the first day of winter or spring.

The Aboriginal people of Australia have also developed calendars founded on their observations of the planets and stars and the changing seasons, based on the weather, the flowering of trees and other plants, the mating calls of birds, or the migration patterns of animals. These calendars are tied to the natural rhythm of the food-cycle on which the Aborigines have traditionally depended for thousands of generations.

As an example, a Clan of the Kakadu people of northcentral Australia has developed a calendar year based on six different seasons. Each season corresponds to two or more of our traditional months and describes the weather and the cycles of animals and plants during the time period. For example, the last season, Gurrung, which corresponds to August and September in our calendar, is described below. Note that the brolga crane is one of the animals that is traditionally hunted by the Kakadu during this season.

“The warm southeast wind ripens the Pandanus fruit and the hot-dry season begins. As soon as the stringybark flowers, snakes lay their eggs and honey is in abundance. Dew and mist is gone, the bush is dry and smoky, smelling continually of scorched eucalyptus. Rays and sharks are fat and the turtles will be laying eggs on the sandy beach of Field Is [a small island off the coast of northern Australia]. Gould’s goannas [a reptile] rob the nests. Emus are fat and are hunted along with brolga, magpie geese, the bandicoot and wallaby. The first white-breasted wood-swallows arrive as the thunderheads begin to build and the season changes to Gunumeleng [the first season in the calendar].”

From *Kakadu Man...Bill Neidjie*, 1985 by Bill Neidjie, Stephen Davis, and Allan Fox.

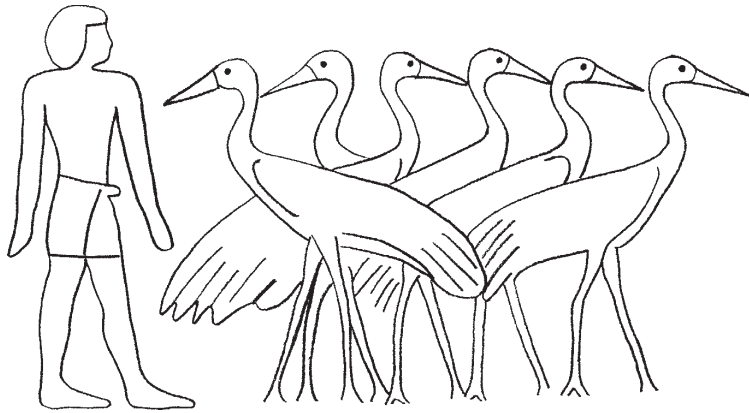
Using the above description of the Kakadu season as an example, develop a calendar based on the changing seasons around your home. You may decide to divide your calendar into four seasons corresponding to winter, spring, summer, and fall. But think about these divisions carefully – are there differences between the beginning and end of a season that you could subdivide into separate seasons? Name each season and briefly describe the changing weather and the animals and plants that you see near your home during these periods.

As another option, you might choose to develop your calendar around the cycle of sports seasons in your school or even local hunting seasons. What typifies these seasons? For example, the weather may turn cooler at the beginning of the football season, but you also return to school or start wearing warmer clothes at this time. Share your calendar with your class after you have completed it.



Africa

In Africa, the crane has played an important role in both ancient and modern cultures. For example, in ancient Egypt, wild Eurasian and demoiselle cranes were captured during their migration through northern Africa and raised in captivity as pets and a source of food. Egyptian artists often carved or painted scenes involving cranes on the stone walls of **tombs** and **temples**. The artwork shows the Egyptians capturing wild cranes with nets, herding and feeding captive cranes, and presenting cranes to their kings and queens as food offerings.



A portion of an Egyptian carving of a captive flock of Eurasian cranes. From P. F. Houlihan, *The Birds of Ancient Egypt*, 1986, page 84. Figure reproduced by the courtesy of Aris & Philips, Warminster, England.

The crane continues to play an important role in modern Africa. For example, cranes are the national birds of Nigeria, Uganda, and South Africa. The black crowned and grey crowned cranes are the national birds of Nigeria and Uganda, and the blue crane is the national emblem for South Africa.

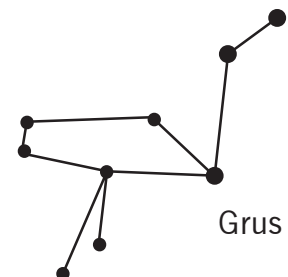
The grey crowned crane is found on both the national flag and Coat of Arms of Uganda. In the center of the Ugandan national flag is a small picture of a grey crowned crane. The crane is drawn in a white circle in front of six horizontal stripes. The colors of the stripes - black, yellow, and red - are the same colors as the feather crest and cheek patches of the grey crowned crane.

Crane meat was a **popular dish** in ancient Egypt, although the birds are no longer commonly eaten in the region today.

In ancient Egypt, artists carved elaborate scenes representing daily life on the walls of sacred **temples**, where they worshiped, and **tombs**, or burial chambers. The Egyptians believed that the deceased would need food and other necessities of daily life in the next world, and believed that the scenes on the tomb walls would ensure their access to these items after death.

In Egypt the crane was also the symbol of people who **observed the stars**. What are star-observers called today?

One of the **constellations** in the southern hemisphere is called Grus, or The Crane. *Grus* is the Latin term for crane and is the name for one of the three genera, or scientific groupings, of cranes today.





The following story is from a region along the northern shore of Lake Victoria called the Nyanza province. Lake Victoria is a large lake in eastern Africa bordered by Uganda, Kenya, and Tanzania. The story describes how the crowned crane received its crown of golden feathers and discusses the importance of thinking about the meaning of a gift before you give it to someone.

ARAP SANG AND THE CRANES

Arap Sang was a great chief and more than half a god, for in the days when he lived great chiefs were always a little mixed up with the gods. One day he was walking on the plain admiring the cattle. It was hot. The rains had not yet come; the ground was almost bare of grass and as hard as stone; the thorn trees gave no shade for they were just made of long spines and thin twigs and tiny leaves and the sun went straight through them. It was hot. Only the black ants didn't feel it and they would be happy in a furnace.

Arap Sang was getting old and the sun beat down on his bald head and he thought: "I'm feeling things more than I used to." And then he came across a vulture sitting in the crotch of a tree, his wings hanging down and his eyes on the lookout.

"Vulture," said Arap Sang, "I'm hot and the sun is making my head ache. You have there a fine pair of broad wings. I'd be most grateful if you'd spread them out and let an old man enjoy a patch of shade."

"Why?" croaked Vulture.

"Why?" said Arap Sang mildly. "Because it wouldn't be much trouble to you. Because it's pleasant and good to help people."

"Bah!" said Vulture.

"What's that?"

"Oh, go home, Baldy, and stop bothering people; it's hot."

Arap Sang walked on. He was feeling shaky. Presently he met an elephant. Elephant was panting across the plain in a tearing hurry and was most reluctant to stop when Arap Sang called to him.

"Elephant," said Arap Sang weakly. "I'm tired and I'm dizzy. I want to get to the forest and into a bit of shade but it's a long way."

"It *is* hot, isn't it?" said Elephant. "I'm off to the forest myself."

"Would you spread out your great ears and let me walk along under them?" asked Arap Sang.

"I'm sorry," said Elephant, "But you'd make my journey so slow. I must get to the forest. I've got the most terrible headache."

"Well, I've got a headache too," protested the old man.

"I'm sure," said Elephant, "and no one could be sorrier about that than I am. Well, good-bye and good luck." And he hurried off in the direction of the distant forest and was soon out of sight.



Poor Arap Sang was now feeling very ill indeed. He sat on the ground and he thought to himself: "I can't go another step unless I get some shade and if I don't get some soon I'm done for."

And there he was found by a flock of cranes. They came dancing through the white grass, stamping their long delicate legs so that the insects flew up in alarm and were at once snapped up in the cranes' beaks. They gathered around Arap Sang sitting on the ground and he looked so old and distressed that they hopped up and down with embarrassment, first on one leg then the other. "Korong! Korong!" they called softly and this happens to be their name as well.

"Good birds," whispered Arap Sang, "you must help me. If I don't reach shade soon I'll die. Help me to the forest."

"But, of course," said the cranes, and they spread their great handsome black and white wings to shade him and helped him to his feet, and together, slowly, they all crossed the plain into the trees.

Then Arap Sang sat in the shade of a fine cotton tree and felt very much better. The birds gathered round him and he looked at them and thought that he had never seen more beautiful creatures in the whole world.

"And kind. Kind as well as beautiful," he muttered. "The two don't always go together. I must reward them. I shan't forget your kindness," he said, "and I'll see that no one else does. Now I want each one of you to come here."

Then the cranes came one after another and bowed before him and Arap Sang stretched out his kindly old hand and gently touched each beautiful sleek head. And where he did this a golden crown appeared and after the birds had gravely bowed their thanks they all flew off to the lake, their new crowns glittering in the evening sun. Arap Sang felt quite recovered. He was very pleased with his gift to the cranes.

Two months later a crane dragged himself to the door of Arap Sang's House. It was a pitiful sight, thin with hunger, feathers broken and muddy from hiding in the reeds, eyes red with lack of sleep. Arap Sang exclaimed in pity and horror.

"Great Chief," said the crane, "we beg you to take back your gift. If you don't there'll soon be not one crane left alive for we are hunted day and night for the sake of our golden crowns." Arap Sang listened and nodded his head in sorrow.

"I'm old and I'm foolish," he said, "and I harm my friends. I had forgotten that men also were greedy and selfish and that they'll do anything for gold. Let me undo the wrong I have done by giving without thought. I'll make one more magic but that'll be the last." Then he took their golden crowns and in their place he put a wonderful halo of feathers, which they have until this day. But they still are called crowned cranes.

Extract from *Tales Told Near a Crocodile* by Humphrey Harman published by Hutchinson. Used by permission of The Random House Group Limited.

After reading "Arap Sang and the Cranes," discuss in class the moral of the story. Do you think Arap Sang was foolish for giving the cranes gold crowns to reward them for their kindness?

Why do you think the crowned crane has a crown? Some people think the feather crowns camouflage the cranes in the grasslands of Africa -- when the cranes stand in tall grass the yellow feathers on the top of their heads help them blend into their surroundings. Other people think the crown may protect the cranes from the hot African sun, serve as a display during the breeding season, or attract a mate.



Europe

In Europe and the Middle East, the crane has influenced literature, language, and thought for thousands of years. Cranes are mentioned in both ancient Greek and Roman texts that are thousands of years old, such as the *Iliad* by the Greek poet Homer. The crane, or *agur* in Hebrew, is also mentioned in the *Bible*. Both the Eurasian and demoiselle crane migrate through and winter in Palestine and other Mediterranean countries, explaining their influence on the people of these areas. The Romans, whose influence extended into northern Africa, were also familiar with the crowned crane, which they further mention in their writings.

The Greeks and Romans also used their observations of the cycle of crane's migrations to mark the changing of the seasons and to determine when to plant their crops. Today, in the Scandinavian countries of northern Europe, the arrival of the Eurasian crane in the early spring continues to signal the end of the long winter in the region.

In southern Sweden, people continue to plant potato fields specifically for cranes, and national radio broadcasts announce the arrival of cranes to the country in the spring. After the first cranes are sighted in the region, people from throughout southern Sweden follow the *tranor*, or posted crane sighting signs, that direct them to areas where they may view the cranes. So many people in cars and buses arrive to see the cranes during the migration that the police have to direct traffic.

In Europe the crane is an ancient symbol of vigilance and loyalty. This association developed from the belief that when cranes roosted, or rested, at night, several cranes would stay awake and guard the flock. The guards would stand on one leg with a stone in the raised foot, and, if they should fall asleep during the night, they would drop the stone and wake themselves and the flock.

Did you know that the geranium plant is named after a crane? The word geranium is derived from *geranos* or *gerunos*, the Greek term for crane, because the seed pod of the geranium plant looks like a crane's bill.

It is a popular belief that several characters in the Greek alphabet are based on the shapes and patterns cranes form while flying or standing. For example, while migrating, cranes typically fly in a triangular formation similar to the Greek letter lambda.

 lambda

 phi

In addition, some people believe that the letter phi resembles a crane standing on one leg with its head tucked under one wing. What do you think?

Cranes were also kept in captivity by the Greeks and Romans as both pets and a source of food.



A SNOW WREATH?

Do you know what crane is called a “snow wreath” in Russia? I’ll give you a hint - it’s the only crane that is almost all white and it has a very long bill. Yes, it’s the Siberian crane. The Siberian crane is also called “lily of birds” in India and the “crane with black sleeves” in China.

All Siberian cranes breed in Siberia in northern Russia. The indigenous people of this region have traditionally protected the beautiful white cranes and believe that the birds bring health and good fortune. For example, the Yakutian people of eastern Siberia believe that Siberian cranes bring healing. In addition, after killing a bear, the Khanty, or Hunty, people of western Siberia dress in a crane costume and dance to drive away the spirit of the dead bear. The indigenous people of Siberia further believe it brings bad luck if the Siberian cranes are disturbed while nesting and rearing their young.

The haunting poem by Rasul Gamzatov, “Cranes,” was written about the Siberian crane. The poem describes the thoughts of a Russian soldier as a flock of Siberian cranes flies overhead. The stanzas of the poem have been modified to form the lyrics of a popular Russian folk song, which is also entitled “Cranes.” Read the poem in class and discuss its meaning. Why do you think the soldier imagines that his friends who were killed in battle became cranes after their deaths?



CRANES

I sometimes think that warriors brave
Who met their death in bloody fight
Were never buried in a grave
But rose as cranes with plumage white.

Since then unto this very day
They pass high overhead and cry.
Is that not why we often gaze
In silence as the cranes go by?

In far-off foreign lands I see
The cranes in evening’s dying glow
Fly quickly past in company,
As once on horseback they would go.

And as they fly far out of reach
I hear them calling someone’s name.
Is that not why our Avar* speech
Recalls the clamor of a crane?

Across the weary sky they race
Who friend and kinsman used to be,
And in their ranks I see a space --
Perhaps they’re keeping it for me?

One day I’ll join the flock of cranes,
With them I shall go winging by,
And you who here on earth remain
Will listen to my strident cry.

*Avar is a traditional language spoken in Dagestan and Azerbaijan



Conservation Partnerships

As an integral part of the ecosystems in which we live, humans have developed an intimate relationship with the natural environment. We have relied upon natural resources for our subsistence and survival, drawn inspiration from its beauty, and incorporated aspects of the natural world into our stories, dances, art, and world view.

Unfortunately, increasing human populations and growing demands for natural resources, such as timber, natural gas, or oil, have increasingly created conflict between the needs of humans and wildlife. A challenge of modern conservation is to reconcile these often conflicting needs, as both humans and wildlife ultimately depend upon the same resources for their survival.

In an effort to develop effective conservation programs, many conservation organizations, including the International Crane Foundation (ICF), have learned to promote projects that focus both on biodiversity conservation and the long-term needs of local people that inhabit the natural areas used by cranes and other wildlife. As a result, ICF researchers have assisted in the creation of a network of programs that involve local researchers and human populations in conservation projects in over twenty countries spanning the five continents where cranes are found.



Of the countries in which ICF is involved in crane conservation projects, China is among the richest in both diversity of crane species and human cultures. With a human population of over one billion and a wealth of natural resources, China is struggling to meet the current and future needs of both its wildlife and human populations.

In an effort to protect key ecosystems and wildlife populations in the country, China has established approximately 700 new reserves since the mid 1960s that cover 5.5% of the country's total land area. The goal of the nature reserve system is to protect 10% of the country's total land area, forming a network of protected areas that encompass a diverse array of ecosystems.

However, effective management of the expanding reserve system in China has been a challenge. Many of the new reserves were established in areas where local residents rely almost entirely on the resources within the reserve for their subsistence. As a result, a fundamental conflict has developed in many reserves between nature protection and subsistence needs for local populations.

The creation and management of the Cao Hai Nature Reserve in southwest China exemplifies these current conservation challenges. The following sheet summarizes the history of the reserve and details an effort developed by the Chinese government and ICF to promote both natural resource conservation and a thriving human population within the reserve. After reading the information on the reserve, choose one of the suggested activities to develop with your class.



Cao Hai Nature Reserve

The Cao Hai Nature Reserve is located in southwest China in the Guizhou Province. A dominant feature of the reserve is a wide, fresh water lake. Over 60% of the lake's surface is covered with aquatic plants, leading to the name Cao Hai, or "grass sea." The reserve completely encompasses both the lake and the surrounding watershed within its boundaries. The reserve is an important area for many bird species, including the black-necked crane, which winters in the reserve. The reserve is also home to approximately 19,000 people, who live in twelve villages scattered within the reserve boundaries.

Land Management History at Cao Hai

In the late 1950s, the Chinese government initiated a plan to maximize the productivity of the water resources within Cao Hai. As a result, the lake was partially drained in 1958 and completely drained fourteen years later in 1972. By the late 1970s, the wetlands and waterbirds had all but vanished from this formerly biologically rich region. A major goal of draining the lake was to increase the amount of arable land and thus increase food production in the area. Unfortunately, after the lake was drained many parts of the lake were either too dry or too wet for agriculture. However, area farmers still took advantage of the new opportunities to expand their farmland into the limited arable areas opened up by the drainage of the lake.

In the early 1980s the Chinese government made the decision to reflood Cao Hai in an attempt to restore the lake and wetland ecosystem. This decision was prompted, in part, by the view that the actual benefits of draining the wetland were outweighed by the negative changes to the area's climate and natural resources. In 1985, shortly after the area was reflooded, the area was designated a nature reserve. While the return of the annual water cycle benefited the wildlife in the area, the benefits to the local human population varied. Local farmers, who had profited from increased farmland when the lake was drained, suddenly lost land where they had grown corn, potatoes, and other crops to feed their families. As a result, a severe conflict ensued between the reserve managers and the local population within the reserve. The local people began intensifying use of other resources, such as converting hillsides to farmland, raising livestock, and over-fishing. These activities led to increased degradation of the already fragile wetland ecosystem within the reserve.

In an effort to stem the increasing environmental degradation within the reserve, the Chinese government, in partnership with the International Crane Foundation, developed a program to offer alternative subsistence activities to the villagers within the reserve. The program offered small loans to local villagers, which they could use to start or expand small businesses. An important condition of the loans is that they must be used to begin businesses that are compatible with the conservation goals for the reserve. The hope of the program is that area residents will begin to rely on alternate economic activities and reduce the intensive use of the natural resources within the reserve.



Conservation Partnerships

Activities

1. You are a subsistence farmer in a village in the Cao Hai Nature Reserve. The Cao Hai Project has given your village a stipend of \$200.00. Your challenge is to work with the other villagers (the class) to figure out how best to spend this money. The goal of the stipend is to bring you increased economic freedom. The catch is to protect and sustain the Cao Hai Nature Reserve and its inhabitants. How are you going to bring your village increased income, while protecting its natural resources?
2. The challenge of including the concerns of local human populations in the development of conservation projects includes an understanding of the perceptions and priorities of local populations. For example, in the case of the Cao Hai Nature Reserve, the local farmers were angered by the creation of the reserve and the flooding of the lake because it affected their farming and their family's livelihoods. Their priorities included feeding and supporting their families - initially they perceived this as more important than preserving the surrounding wetland habitat for local wildlife. Divide the class into two groups representing the Cao Hai villagers and the Chinese government. In your groups brainstorm the priorities of the two groups (for example - increasing farm land vs. preserving wetland habitat for waterfowl). After developing each priority list, discuss as a class how to reconcile the needs of both sides. The program developed at Cao Hai to promote environmentally-friendly small businesses is one solution to this challenge - can you think of others?
3. Historically, nature conservation has often excluded human populations from protected natural areas, such as national parks or nature reserves. Today, however, many researchers and policy makers are reframing their concept of protected areas and are incorporating local human populations within the design and management of reserves. As a class, discuss the opportunities and challenges of this shift in conservation theory. What advantages do you see to incorporating local populations into the management of protected areas? What disadvantages do you see to this approach?

