



THE HOPI

A Companion Guide
for
Elementary and Middle School Teachers
(Grades 4-8)
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ACTIVITY SHEETS AND HANDOUT CREDITS

1. **“Fred Kabotie’s Portrait” handout.** Picture taken from the National Park Service’s Grand Canyon National Park Museum Collection, Image 8307, from the Fred Harvey Collection. Used with permission.
2. **“Fred Kabotie’s Watchtower Mural Painting” handout.** Mural taken from the National Park Service’s Grand Canyon National Park Museum Collection. Used with permission.
3. **“Hopi Corn Dance Painting” handout.** Painting taken from the collection of the National Museum of the American Indian. Ray Naha (Hopi). *Corn Dance*, 1964. Casien painting. Photo by Fine Art Move. (23/4129)
4. **“Hopi Ceremonial-Cycle Chart” handout.** Chart taken from *Following the Sun and Moon: Hopi Kachina Tradition* by Alph Secakuku with The Heard Museum, 1993, Northland Publishing, p. 5. Used with permission of the Heard Museum, Phoenix, AZ.
5. **“Fresh Corn Rolls Recipe” (Nakviki) handout.** Recipe taken from *Hopi Cookery*, by Juanita Tiger Kavena. © 1980 The Arizona Board of Regents. Reprinted by permission of the University of Arizona Press. This recipe may not be reproduced in any manner whatsoever without the written permission of the University of Arizona Press.
6. **“Hopi Villages Map” handout.** Map taken from <http://www.hopiculturalcenter.com>. Permission courtesy of the Hopi Cultural Center.
7. **“Traditional American Indian Dwellings” activity sheet.** Photos from the NMAI Collection. A: “Totems at Kasa-an, Alaska,” a view of the village and totem poles. Kasaan, Prince of Wales Island, Alaska. Photo by LaRoche, Seattle, Washington. P12719. B: A Chippewa bark-covered circular wigwam, 1923. Leech Lake, Minnesota. Photo by Huron H. Smith. P10335. C: Mandan Sioux camp, ca. 1903. Fort Berthold, North Dakota. Photo by Fred R. Meyer. N21843. D: Albumen print entitled “Center of Zuni.” Zuni Pueblo, New Mexico. Photo by John K. Hillers. P03482.
8. **“Traditional Hopi Building Materials” activity sheet.** Photos A, C, D, F, G from NMAI Indigenous Geography Hopi profile (Photo F © 1999 Nancy Ackerman). Photo B courtesy of Jeff Hughes, National Park Service. Photo E courtesy of Pete Larkin, National Park Service.
9. **“A Hopi Village” handout.** Excerpted from Ferrell Secakuku’s “Community” Essay, 2004.
10. **“The Village of Oraibi” activity sheet.** Map taken from John C. Connelly, 1979. “Hopi Social Organization,” in *Handbook of the North American Indian*, Vol. 9, Smithsonian Institution, p. 543. Permission courtesy of Smithsonian Institution Libraries.
11. **“A View From Within” activity sheet.** Excerpted from Ferrell Secakuku’s “Family” Essay, 2004.

Translated from the original Spanish.

EDUCATOR INFORMATION

Overview

This curriculum/study guide has been prepared as an educational tool to accompany the Hopi Community component of the Smithsonian Institution National Museum of the American Indian's Internet-based ***Indigenous Geography Project***. *The Hopi: A Companion Guide For Elementary and Middle School Teachers* has been designed to help educators in grades 4-8 teach about one American Indian community today: The Hopi. While Hopi lifeways have changed much in the past centuries, they still continue to maintain and celebrate their histories, traditions, and ceremonies while becoming an integral part of contemporary American society.

A total of two lessons that explore in more depth selected topics addressed by the Hopi community in the Indigenous Geography Project have been developed. These topics include corn agriculture, and the roles geography, culture, and religion have played in shaping Hopi villages. While preparing these lessons, efforts were made to reveal the complexity and interdependency of these various topics and to target particular National Geography Standards and National Social Sciences Standards. These standards provide direction for helping students become geographically and historically informed, and further understanding and appreciation of the complex web of relationships between people, places, and the environment through time.

What You Will Find

This Guide contains two lesson plans.

Lesson 1

Corn: Hopi's Blessing Of Life explores the close interdependence that exists between corn agriculture, the environment where corn is grown, the symbolic aspect of corn, and the ceremonial life of the Hopi people of northern Arizona. Students analyze Hopi artwork to learn about the central role corn plays in sustaining Hopi's livelihood and their rich and elaborate ceremonial and spiritual life. Then they examine A Hopi Agricultural Ceremonial Chart to learn about the different corn agricultural activities and the ceremonies that are held throughout the year. After that they experience a taste of Hopi traditional cuisine by making fresh corn rolls. They make posters to illustrate the interrelationships among the environment, religion, and agriculture and conclude with an exploration of this topic in their own community.

Lesson 2

Crafted In The Landscape: The Hopi Villages examines how geography, culture, and religion have influenced the layout and design of Hopi villages. Throughout a variety of activities, students investigate the suitability of various dwellings for different environments, the types of materials used and where they need to obtain them in order to build a traditional Hopi house. Then they read a description of the layout of a Hopi village on Second Mesa from the perspective of a Hopi member and analyze its layout and physiographic location. After that they read a description of the interior of a Hopi dwelling by a Hopi member and draw a floor map illustrating the location of different areas and activities. Using the information obtained from this lesson, students build a traditional Hopi house and conclude the examination of this topic by investigating their community and house layout and history.

What's In Each Lesson

Each lesson consists of thirteen sections. **Lesson Objective** highlights what the lesson is designed to achieve. **Estimated Time** provides an average estimate of lesson length. **Materials Required** lists the materials that will be needed to carry out the lesson. **Connections to the Curriculum** lists which curriculum areas the lesson touches on, for example, social sciences, geography, history, language arts, and/or language. **Connections to the National Geography Standards** lists what standards the lesson explores. **Connections to Students' Geographic Skills** describes what kinds of abilities students will acquire or develop further as a result of doing the lesson. **Connections to the National Social Sciences Standards** points out what strands this lesson examines. **Vocabulary** words are underlined in the background information and defined in the vocabulary portion of each lesson section. **Background** provides information that enhances understanding of the lesson topic and may be reproduced for classroom use, if needed. **Setting the Stage** serves as an icebreaker to introduce students to different themes. The **Student Assessment** activities allow students to integrate what they have learned and communicate it to others. They also provide educators with ways to evaluate students' understandings of the topic. **Extension** suggests ways students can explore a similar topic in their own community. Finally, **Sources Consulted For Content** points out what bibliographical references were used to develop the lesson content.

How You Can Help

Let us hear from you! Email your comments to NMAI-IndGeog@si.edu.

Indigenous Geography website:
www.IndigenousGeography.si.edu

LESSON 1

CORN: HOPI'S BLESSING OF LIFE

GRADE LEVEL: 4-8

Lesson Objective

At the completion of this lesson, students will be able to:

- Examine how agriculture, especially corn agriculture, is strongly rooted in the identities and lives of Hopi people.

Estimated Time

Three to four 45-minute sessions

Materials Required

- “Fred Kabotie’s Portrait,” Handout A
- Color copy or transparency of “Fred Kabotie’s Watchtower Mural Painting,” Handout B
- Color copy or transparency of “Hopi Corn Dance Painting,” Handout C
- “Hopi Ceremonial-Cycle Chart,” Handout D
- “Hopi Agricultural Calendar,” Activity Sheet A
- “Fresh Corn Rolls Recipe (Nakviki or Tangu’viki),” Handout E, by Juanita Tiger Kavena (1980)

Ingredients:

- 6 ears of fresh tender corn
- 1 teaspoon salt

Connections to the Curriculum

- Geography
- History
- Social Studies
- Art
- Language Arts

Connections to the National Geography Standards

Standard #6: How culture and experience influence people's perceptions of places and regions.

Standard #14: How human actions modify the physical environment.

Standard #15: How physical systems affect human systems.

Connections to Students' Geographic Skills

- Identify ways culture influences people's perceptions of places and regions.
- Evaluate the ways in which technology influences human capacity to modify the physical environment.
- Explain how the characteristics of different physical environments affect human activities.

Connections to the National Social Studies Standards

Strand I: Culture. Social studies programs should include experiences that provide for the study of culture and cultural diversity.

Strand II: Time, Continuity, and Change. Social studies programs should include experiences that provide for the study of the ways human beings view themselves in and over time.

Strand III: People, Places, and Environments. Social studies programs should include experiences that provide for the study of people, places, and the environments.

Vocabulary

Hisatsenom culture: "The Ancient People." The *Hisatsenom* are those people who migrated throughout the four corners area in the Southwestern United States, building villages before coming to Hopi. Some elders consider some present Hopi clans, like the Bear, Snake, Fire, and Badger, as *Hisatsenom*, because they are the remnants of those ancient people.

Fourth World: According to the Hopi emergence story, the Hopi are living in the Fourth World.

Maasawu: Hopi's caretaker of the world.

katsina(m): A spirit messenger who serves as an intermediary between the gods and people, sending prayers for rain, bountiful harvests, and a healthy life.

katsina ceremonies: Special ceremonies held from February to July to ensure rain, bountiful harvests, healing, and other gifts of life.

Sun (*Tava*): Hopi's Great Father and source of life.

Background

The ancestors of modern Pueblo peoples have lived in the Four Corners and Rio Grande region in Southwestern United States for at least 10,000 years. The Anasazi people were an ancient culture that developed from Paleoindian lifeways but disappeared. Modern Pueblo peoples today carry on many legacies of the *Hisatsenom* culture. Here, in the heartland of the canyons, mountains, and valleys of the Colorado Plateau, Pueblo peoples have created, through time, a unique fabric of community life based on farming, worship, and life in adobe and masonry villages, later called pueblos by the Spaniards. For Hopi people, this place has always been their homeland.

Hopítu or “peaceful ones,” as Hopi people call themselves, have always been profoundly rooted in their land through their ancient agricultural practices and the celebration of their spirituality in religious ceremonies held throughout the year. The archaeological record shows that agriculture was introduced to the southwestern United States from Mexico around 3,500 years ago. Pueblo people have been successful farmers for more than 2,000 years.

The Hopi view of agriculture is told in their emergence story. According to their oral tradition, Hopi emerged from the Third World into this current Fourth World. When the Hopi came to this world, *Maasawu* offered them an ear of corn. Other people grabbed the biggest ears of corn, leaving the Hopi with a short ear of corn. The Hopi knew that this Fourth World would put them closer to the earth and that by inhabiting this desolate and rugged region, they would learn to be humble, respectful, and cooperative. Hopi accepted the responsibility to be stewards of the land.

Hopi Agricultural Methods

Agriculture in the arid region of northern Arizona is a serious and challenging endeavor. Human ingenuity and technological skill have been two key components of Hopi farming success for at least 1,000 years. Faced with harsh climatic conditions including a short growing season of 120-160 days, drying winds, high summer temperatures, lack of surface water, and low and variable annual precipitation (8"-12"/20cm-30cm per year), the Hopi were forced to develop their own farming methods and their own varieties of crops.

Hopi agriculture includes different methods. Dry farming, which depends completely on natural precipitation, relies on water produced during winter snow melts, early spring rains and summer monsoons. This method is used for planting crops of corn, squash, and melons in the fields located along the major washes and valleys between the mesas. *Akechin* farming is used for growing crops of corn, squash, and melons in areas where floodwater spreads out at the mouth of a gully. Irrigated gardening of melon and squash crops is practiced on the stepped, rock-walled terraces on the sides of the mesas and irrigated by ditches or by hand buckets. Sand dunes are good fields for growing beans. To ensure sufficient harvests, most farmers have several small fields in different locations.

When the Hopi emerged into the Fourth World, *Maasawu* gave them a wooden planting stick and a bag of corn. This long wooden planting stick is still used among Hopi farmers. The implement is useful to place seeds deep in the soil without opening large holes; a method employed to avoid the reduction of ground moisture. In addition to the traditional stick, they combine the use of modern equipment such as tractors, discs, and hoes. To bring rain for the crops, Hopi farmers sing and pound the earth. Ferrell Secakuku describes

how the singing and pounding is done: “My dad used to tell me that when you plant, you always pound on something and you always sing, because the plants, the ground, and the earth provide happiness: ‘They made me feel good this morning!’ But the other reason why we sing and pound is to agitate the air, because there’s always moisture in it. The way to support plants is to provide moisture. So the Hopis are always singing or pounding something as loud as they can when they’re tending the crops.”

Ownership of the land and agricultural activities are still performed according to tradition. In Hopi society, women own the farm and garden lands, but tasks are shared between the sexes. Men’s activities include clearing the fields, and planting, maintaining, and harvesting the corn. Women’s tasks involve caring for the crop seeds and the distribution of harvest products, planting and gathering vegetables and fruits from the terraces, and assisting men in the field.

Diversity Is The Key

Unlike modern Western agricultural methods, which encourage planting one species of one crop, Hopi agriculture favors a diversity approach, that is, growing different varieties of the same crop. Growing a variety of species of the same crop is beneficial because various species of one crop are more or less resistant to climatic and pest conditions. There are also many uses that come from a variety of species for cultural and traditional activities. If one species fails, the others may succeed. This ancient practice has proven crucial to obtaining harvests in an arid terrain subjected to the unpredictability of climatic conditions. Hopi farmers produce seventeen varieties of corn, including yellow, blue, red, white, speckled, and purple corn; bean varieties; and different types of squash. White corn represents the most important crop in the reservation and is used for flour (meal), hominy, and prayer offerings. Blue corn follows second in importance and is used mainly in wedding breads and sauces. Red corn is used for parched corn. Yellow corn is often substituted for white corn in both cooking and ceremonies. In addition to their own developed varieties, the Hopi have adapted crops from Europe, Asia, and Africa, such as orchard fruit and watermelons from the Spanish.

The Symbolic Meaning of Corn

Corn and human life are intertwined in Hopi worldview. The Hopi believe that when they adopted a human form, the creator took some human flesh and made it into corn, so they could feed themselves. Corn, as the Hopi say, is human flesh and nourishment for the human. And because of that, Hopi think that corn is a part of them and that they are a part of it. When a baby is born, the baby stays in a dark room with the mother for 20 days. On the 21st day, the baby sees the Sun for the first time and the mother offers the Sun a gift of cornmeal. The baby receives an ear of corn made into a fetish and keeps it for life, because when crops fail, its seeds hold the promise of a new crop cycle. This fetish corn is referred to as Mother corn or corn mother.

Caring for a corn plant requires the same type of care as for a baby. Ferrell Secakuku best describes this unique relationship when he says: “The plant is just like your child, like a baby. You take really good care of it so nothing would go wrong. They get to know you, and they’re really happy when you come, especially when you sing. And then you clean out the weeds to keep your plants healthy.” This type of special caring entails good agricultural practices and strategies like planting in different locations, doing multiple plantings during the growing season, carefully selecting the seed corns, maintaining the separation of different vari-

eties of corn, and diverting water to crops when needed, all of which have ensured the productive growth of corn.

The different colors of corn hold special meanings to the Hopi. The four cardinal directions and the bottom and upper worlds are signified by the different colors of corn as well as by various colorful birds. North is represented by yellow corn, *takuri*, and by a yellow bird, finch or *sikyats'i* and by another bird *tawamanawu'*. West is represented by blue corn, *sakwapu*, and by any bird that is blue, for example, *tsooro*, a bluebird, or *sa'in*, a blue jay. South is represented by red corn, *palaqa'ö* and a Central American parrot, *knyro*. East is represented by white corn, *qotsaqa ö*, and by the bird *poosinu*. The Upper World is signified by the color of dark purple corn, *kokoma* and by a black bird, *tokotska*. The Bottom World is grey and is signified by a mixture of all the colors of corn together, *tawaktsi* (sweet corn variety) and the bird *tiposkma*.

Hopi ceremonial life serves as a guide for the performance of their agricultural cycle. The timing of the different agricultural activities is marked in Hopi ritual calendar, following the phases of the moon and the solstices of the sun. From February through July, Hopi hold different night and day *katsina* ceremonies and various non-katsina ceremonies during the remaining part of the year. While these ceremonies are celebrated, Hopi people participate in different agricultural activities, including: clearing the fields; planting crops; weeding, hoeing, and thinning plants; and harvesting.

Procedure

The following set of activities will help students discover the close interdependence that exists between corn agriculture, the environment where corn is grown, the symbolic aspect of corn, and the ceremonial life of the Hopi people of northern Arizona.

Part A: Corn Through A Hopi Artist's Eyes

As an icebreaker for this activity, have students examine two pieces of Hopi artwork by recognized and prominent artist, Fred Kabotie (1900-1986). (Show students a picture of the artist and tell them that his Hopi name was Nakavöma or Kavö'ma, meaning "Day After Day".)

1. Divide the class into groups of 3-4 students.
2. Give each group a color copy or project a color transparency of "Fred Kabotie's Watchtower Mural Painting," Handout B. (When projecting or copying the painting, please cover up the bottom part of the painting where information about the artist's artwork is provided.)
3. Tell students that they are going to examine the painting of Fred Kabotie, a renowned Hopi artist who depicted Hopi life. In groups, have them examine the circle representation (on the right) and the different elements around it and answer the following study questions:
 - What did the artist portray? (Possible answer: A special ceremony to bring rain)
 - What elements/events did the artist portray in each quadrangle? What do you think they mean in Hopi culture?

(Answer: **The Circle: Upper left:** A man and a boy standing on top of the *kiva* (house) depicts a father handing prayer feathers to his son (Tiyo or boy) after making meditative prayers with tobacco and pipe, to give him strength and encouragement. Tiyo was preparing for a

long journey to an unknown place, in pursuit of finding a better life for his father. His father was a leader of his people. There had been no rain for decades and people were starving because they could not raise crops. **Upper right:** This quadrant represents Tiyo's journey through the Colorado River (Pisisvayu). Tiyo is riding in the juniper box that his spirit guide made for him. The birds, the rain god and related spirits, and the river creatures, guided Tiyo and protected him during his journey. He landed somewhere in the south (perhaps Mexico, or South America). **Lower right:** Here, Tiyo (far left) is being guided back to his homeland, Tokonavi (Navajo Mountain). The middle figure is Pokanghoya, a spiritual warrior. The woman on the right of Pokanghoya is the Snake woman given to Tiyo as his wife. Tiyo learned the snake religion from his wife's people and brought that religion back to his father. With this religion, the rains would come back to his country to make life better. The snakes that are painted on each side of these three people represent Hopi cardinal directions, beginning with yellow snake to the north, blue to the west, red to the south, and white to the east. Life was good. **Lower left:** This is Tiyo and his bride, the Snake woman that he brought to his village. This was the beginning of the Snake Clan who brought their religious ceremony to the Hopi people. Today, tourists call this ceremony the Snake Dance. The Snake ceremony is done to bring rains to the Hopi villages so that crops will grow and mature as food for strength and survival.

- What other elements do you see around the circle? That do you think they mean in Hopi culture? (Answer: **Outside the Circle: Above the circle** is the sun which represents life for living and watches the earth daily so that life of the earth and all on it will prevail. **Below the circle** is the moon which represents fertility, and the continuity of life on this earth that will protect Mother Earth from harm. The **cloud designs** represent those spiritual relatives who have gone back to their spirit world. They represent the healing of the earth and the living souls on this earth. They also represent our heritage and our identity here on the earth. The **white canes** to the left represent periods of human life. The longest is birth. They show the various phases of mortal life, ending with the shortest cane, which represents entry to the spirit world.
4. Give each group a color copy or project a color transparency of the "Hopi Corn Dance Painting," Handout C.
 5. Tell students to examine the painting and answer the following questions:
 - What do you think the artist wanted to represent in this painting? (Possible Answers: A sacred/ceremonial/ritual/katsina ceremony for the Hopi village)
 - Why do you think this event is being celebrated? What is the purpose of congregating all the village people around the dance plaza of the pueblo? (Possible Answers: They want to celebrate a ceremony to bring good things to the village, for example, a bountiful harvest and abundant rain for the crops. This is a Corn Dance Ceremony where the *tsu'ku wimkya*, or clowns, taunt the *katsinam*, or "power centers" in a Hopi ceremony.) Explain the meaning of Hopi terms as needed for students.
 - Have them share their groups' answers with the rest of the class.

Part B: Corn In The Agricultural And Ceremonial Cycle Of Hopi Life

1. Divide the class into pairs.
2. Give each pair a color copy of the “Hopi Ceremonial-Cycle Chart,” Handout D, and the “Hopi Agricultural Calendar,” Activity Sheet A.
3. Tell students that they are going to examine the “Hopi Ceremonial-Cycle Chart” handout and the “Hopi Agricultural Calendar” activity sheet to learn more about the different corn agricultural activities and the ceremonies that are held throughout the year.
4. Have students answer the study questions.
5. Have students share their responses with the rest of the class. (This may be a good opportunity for the teacher to provide additional background information to expand students’ chart inferences. For example, which of the sexes performs which activities, explore the difficulties of growing crops in an arid terrain, or the ancient methods and tools developed by Hopi people.)

Part C: A Taste of Hopi Originality: Making Fresh Corn Rolls (Nakviki or Tangu’viki)

In their study of Hopi corn agriculture, students have gained new insights about various aspects related to this practice, but also about Hopi lifeways. By making corn rolls, students will experience a taste of Hopi traditional cuisine.

1. Divide the class into groups of 4-5 students.
2. Give each group a copy of the “Fresh Corn Rolls Recipe,” Handout E, by Juanita Tiger Kavena.
3. Prepare the recipe in the classroom.
4. After the rolls have cooled off, enjoy a taste of them.

Suggested Student Assessment: Creating Your Own Artwork

Artwork is a powerful way to communicate ideas and messages to a wide audience. As such it can also serve as a valuable tool to assess students’ understandings of some fundamental aspects of Hopi’s relationship between the land and their agricultural and religious practices.

Have students create a poster depicting the interrelationship among the environment, religion, and agriculture (crops, methods). This activity may be done in collaboration with the art teacher in order to celebrate “Native American Heritage Month,” which is usually held in the United States in November, or another important day at Hopi or Supawlavi Village, such as Pueblo Revolt Day, August 10.

As a follow up, have each group display its poster (e.g., at the school library, main hallway or special activity room) and set up a time (e.g., during lunch break) where teachers and other classmates can talk with the students to learn more about the contributions of Native peoples. Students may also share a taste of their Hopi Fresh Corn Rolls with the visitors.

Extension: Beyond The Hopi and Into My Own Community

This lesson examined how Pueblo people in the southwestern United States, particularly Hopi people, have chosen to live and adapted to life in the arid landscape of northern Arizona and how this terrain has influenced their livelihood, particularly with regard to their agricultural and ceremonial practices. Following the same approach used when studying the Hopi, have students examine their own community and identify an agricultural activity or other activity (e.g., industrial) that has played a fundamental role in the livelihood of their community.

Sources Consulted For Content

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- Secakuku, Alph. 1995. *Following the Sun and Moon: Hopi Kachina Tradition*. Northland Pub. in cooperation with the Heard Museum, Flagstaff, AZ.
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LESSON 2

CRAFTED IN THE LANDSCAPE: THE HOPI VILLAGES

GRADE LEVEL: 4-8

Lesson Objective

At the completion of this lesson, students will be able to:

- Examine how geography, culture, and religion have influenced the layout and design of Hopi villages.

Estimated Time

Three to four 45-minute sessions

Materials Required

- “Hopi Villages Map,” Handout A, showing the location of the Hopi villages on First, Second, and Third Mesas, highlighting the locations of Supawlavi on Second Mesa and Oraibi on Third Mesa
- “Traditional American Indian Dwellings,” Activity Sheet A
- “Traditional Hopi Building Materials,” Activity Sheet B
- “A Hopi Village,” Handout B, from Ferrell Secakuku’s “Community” essay
- “The Hopi Village of Oraibi” layout map, Activity Sheet C
- “A View From Within,” Handout C, from Ferrell Secakuku’s “Family” essay
- Materials to Build a Hopi Village:
 - cardboard boxes in various sizes
 - moss or green sponges
 - cornmeal, salt, or sand
 - black construction paper
 - twigs or Popsicle sticks
 - tan tempera or latex house paint
 - craft glue (or a hot glue gun, for grown up use)
 - scissors

Connections to the Curriculum

- Geography
- Social Studies
- Art
- Language Arts

Connections to the National Geography Standards

Standard #4: The physical and human characteristics of places.

Standard #5: That people create regions to interpret Earth's complexity.

Standard #6: How culture and experience influence people's perceptions of places and regions.

Connections to Students' Geographic Skills

- Analyze the human characteristics of places.
- Identify the criteria used to define a region.
- Identify ways culture influences people's perceptions of places and regions.
- Illustrate and explain how places and regions serve as cultural symbols.

Connections to the National Social Studies Standards

Strand I: Culture. Social studies programs should include experiences that provide for the study of culture and cultural diversity.

Strand II: Time, Continuity, and Change. Social studies programs should include experiences that provide for the study of the ways human beings view themselves in and over time.

Strand III: People, Places, and Environments. Social studies programs should include experiences that provide for the study of people, places, and the environments.

Vocabulary

katsina(m): A spirit messenger who serves as an intermediary between the gods and people, sending prayers for rain, bountiful harvests, and a healthy life.

plaza: An open space enclosed by houses and clear of vegetation where Hopi people hold their elaborate dances.

pueblos: Traditional adobe and masonry villages built by different American Indian communities in the southwestern United States. Spanish explorers first coined the word "pueblos" to describe this type of architecture around 1540.

chinking: Small stone fragments placed into the mortar and driven in with stone hammers.

Sun (*Tawa*): Hopi's Great Father and source of life.

Background

Did you know that the Hopi village of Oraibi, located on Third Mesa in northern Arizona, is the oldest continuously human inhabited community in North America? Archaeologists suggest that it was constructed between 1020 and 1100 A.D. The remaining Hopi villages were constructed a few years later on top of First, Second, and Third Mesas. Supawlavi was settled during the 1700s. Sungoopavi Village, also believed to be as old as or even older than Oraibi, was relocated to the Mesa after the Pueblo Revolt of 1680.

At first glance, the arid terrain of northern Arizona may appear inhospitable to human life. Grasslands and desert scrub prosper in the lower elevations while piñon and juniper woodlands thrive on the mesa tops. Sandstone and shale rock, weathered into sand, silt, and clay dominate the soil. Desert temperatures range from 87° F [30° C] in summer to 18° F [-8° C] in winter. Water is scarce and precious in this region. Rainfall from summer rains and average winter snowfall is 8 inches [19 cm] per year. While natural springs dot the landscape, there are no year-round rivers or streams that can supply a permanent and reliable source of water. Washes abound only after heavy rains. Nonetheless, human life has blossomed in the deserts of northern Arizona for thousands of years. The Hopi people represent a successful farming community who has thrived in a desert environment for at least 1,000 years.

Using local resources, ancient wisdom, and human ingenuity, the Hopi people have developed a unique form of architecture and community life, the *pueblos*, one that is also shared with other Pueblo peoples in the Four Corners Area. The inhabitants of the Hopi pueblos not only speak a common language and have their own government, but they have known one another and their families all of their lives. A Hopi house is the residence of a family of varying size. A family may be composed of adult married sisters, their husbands and offspring, the mother and the father, unmarried brothers, and a senior woman. They may live in the same house, in house extensions attached to the house, or in houses placed close together.

Hopi villages are set in a landscape rich in ancient religious significance. Here different landforms and places hold special meanings to the Hopi. For example, the San Francisco Peaks, located southwest of the mesas, is the Hopi's sacred mountain. This is the spiritual home of the *katsinam*. The Grand Canyon is probably the Hopi's holiest place in the world. This is where humans originated and where Hopi people emerged to this land. Many other ancestral lands and prehistoric villages are important to Hopis. Today, Hopis still remember them by preparing prayer feathers for them. Canyon de Chelly in Arizona was the home of different clans who later migrated to Hopi bringing along with them the domesticated turkey. This is the reason why this canyon is known as "Canyon of the Turkey." Another special place is Mesa Verde in southern Colorado. This was the home of two clans who moved to Hopi. They carried with them the power to heal the sick and to take care of diseases, as well as to ensure the well being of people.

Hopi architecture is characterized by masonry structures: local sandstone and clay mortar coated with clay plaster and painted with whitewash. The villages are composed of room-block houses, with Bear Clan houses facing east, to greet the Sun. Houses may reach up to three stories and are built surrounding a central plaza. Traditionally, each house had one room,

which functioned as a kitchen and living/sleeping area. Everyone slept in the middle of the floor. During meals, they all sat on the floor and ate from one pot. Today, some older houses have two rooms. The kitchen is a separate and smaller room whereas the main room is larger and serves as a living/sleeping area. Behind the houses, women have large adobe hornos or bread ovens, where the baking is done. Houses have small buildings placed outside on the edge of the mesa or down to the sides: the bathrooms.

While each family lives in one house, the *plazas* and *kivas* are communal areas of daily use. Here at the plaza a small shrine represents the Center of the Universe and also the Place of Emergence. If you look closely at the edge of the mesa, you will notice a ladder protruding through a square hole of a subterranean or semi-subterranean structure: this is the kiva.

One distinguishing feature of Hopi villages is the ability to change through time in order to accommodate the needs of families. The nature of traditional Hopi building materials and construction methods has facilitated this evolution. Traditional building materials such as wood beams and stone could be recycled and reused many times. Traditional construction methods did not use nails, screws or bolts, but clays for mortar, plaster, and rooftop coverings. Roofs are made of cedar crossbeams, rabbit grass or indian rice grasses, then white clay for the cover.

In the past, building a house was a communal activity, one that involved the participation of family members and friends. The houses were built on top of the mesas. The masonry wall was made using sandstone and *chinking*. Lintels of stone or wooden poles were built into niches, window openings, and door openings. Mortar, made out of soft clay, was put between the stones to fill cavities in the wall. After that, a coat of clay plaster was applied to the entire wall surface. Once plastered, the interior walls were whitewashed. The exterior walls were usually left exposed.

The floor and the roof were built in similar ways. The roofs consisted of large wooden beams of Douglas fir, ponderosa pine or cottonwood, spanning the width of each small room, typically 6 to 7 feet. Smaller secondary beams of juniper were laid across the beams. Willow was matted down forming a mat across the poles. This was covered with a thick layer of grass to create a bed for the clay topcoat. Clay was then applied as the final covering for roofs to prevent water from penetrating through the roof and walls. Cut rocks are positioned on top of the house around the edges of the roof to help hold the roof down, and keep it from being blown off by 25- to 50-mile per hour winds in April. Interior floors were plastered, leveled, and polished.

All of these architectural properties have made the Hopi pueblo an ideal thermal structure, providing warmth and protection from the wind during the cold winters. The thick walls collect solar heat during the day and release it when temperatures decrease at night. Another advantage is that you do not need quantities of wood to keep warm nor to build the house structure.

Roofs or terraces were used for multiple purposes: (1) to dry out crops and hides, (2) to cook, work, and carry out social activities, and (3) to store firewood and water. This space also provided entry to a house or to neighboring houses. On hot summer nights, family members often slept outside on the roof or the terrace where it was cooler.

Before the nineteenth century, the front rooms of houses did not have windows and doors. The only way to access the interior of a house was by climbing ladders to the first terrace and then descending to the bottom floor through hatchways, or climbing to the second/third floors by doorways and other ladders. As fear from enemies diminished, doors and windows were installed to improve the lighting and ventilation of the houses as well as to facilitate access to the first floor.

A house that is inhabited by its members has a prayer feather and two vertical marks present. A prayer feather symbolizing long life is stuck up in the ceiling of the house. It is prepared for the house and its occupants to provide strength, happiness, and pleasantness. Two vertical marks, usually next to the door, are made by the katsinam to stabilize or reinforce the strength of the house and the people who are going to be living in it. These two symbols are very important to the Hopi. They help to protect and keep the house and its members strong, and happy, and to keep evil forces away.

Hopi villages continue to change. Today, concrete blocks or other non-local materials that are obtained outside the reservation often replace traditional materials. The traditional use of roof terraces has changed and many of the ladders are no longer there. Plyboard is often used instead of local timber, since it is easier and cheaper to get. Children play with the latest toys and wear the same kinds of clothes off-reservation kids wear. In spite of all these changes, "... living in the pueblos indicates a commitment to the traditional community and its values. No amount of television or number of John Deere tractors will turn the pueblo into a typical American suburb." (Cordell 1994:165)

Setting the Stage

Have students think about the following hypothetical situation and answer these questions:

- Imagine you had to build a house in the desert of northern Arizona using only the materials available in that region. What materials would you choose to build the house? Based on your choice of materials, what qualities would help make the house more comfortable during the hot summer days and the cold winter days of this region? Have students jot down their answers.

Procedure

Stage I

1. Give each student a copy of the "Traditional American Indian Dwellings," Activity Sheet A. Tell the students to circle the most suitable dwelling for the desert of northern Arizona based on the student's previous hypotheses. Ask them to explain why. (The right answer is "D", a Southwest stone or adobe pueblo. The other three choices are not appropriate for the Arizona desert environment. "A" is an Arctic domed snow house; "B" is a Northwest coast multifamily plank house; and "C" is a Plains buffalo hide tipi.)
2. Share the students' answers with the whole class and encourage discussion.
3. Divide the class into pairs. Tell students that in order to build a traditional Hopi house, they will need different types of materials. Hand students a copy of the "Traditional Hopi Building Materials," Activity Sheet B, and ask them to match

each material with their place of provenance by putting a number next to the correct drawing.

4. Have each pair share their answers with the rest of the class.

Stage II

1. Give each pair “A Hopi Village,” Handout B, where Ferrell Secakuku describes the layout of a Hopi village. Tell each pair to draw a map describing the layout of the village. Have them share their drawings with the rest of the class. (Note: The teacher may want to provide vocabulary and additional background information to enhance overall understanding. Also the teacher may ask one student to draw the village layout on the board based on groups’ input.)
2. Give each pair a copy of “The Hopi Village of Oraibi” layout map, Activity Sheet C. Tell students that Oraibi was constructed between 1020 and 1100 A.D. and is the oldest continuously human inhabited community in North America. Have them answer the study questions using information derived from the map.
3. Have them share their answers with the rest of the class.
4. Students have examined a Hopi village from outside. Now students will look inside one of the houses. Give out “A View From Within,” Handout C, where Ferrell Secakuku describes a traditional and contemporary house. Ask students to draw a floor plan illustrating the room/s and activities that take place inside the house.

Assessment: Building a Hopi Village

This activity will provide students a hands-on opportunity to build a Hopi village using the information learned throughout this lesson. Students could make a single Hopi house from a shoebox or join another student to make a village from many boxes. This activity could be done in collaboration with the art teacher and may be used to celebrate “Native American Heritage Month,” which is usually held in the United States in November, or another important day at Hopi or Supawlavi Village, such as Pueblo Revolt Day, August 10. Their art projects could be exhibited in class or in a special school activity room where others can learn about the students’ work.

Steps:

1. Arrange the boxes with the larger ones in the bottom. Glue them together in position. It is easier if you have a large, flat cardboard base to attach them to so that you can pick up and move the village easily. You can add desert plants by gluing pieces of moss or green sponges to the base.
2. Use point scissors to cut roof openings here and there. In the past, since Hopi people built the first story without doorways, they had to climb ladders and go inside through doorways in the roof. When an enemy approached, they could pull up ladders to keep the enemy from getting inside.
3. Paint all the boxes the same shade of light tan. Before the paint dries, sprinkle cornmeal, salt, or fine sand on it for an adobe effect.
4. Cut rectangles from black paper and glue on for windows and doors.
5. Make ladders from twigs or popsicle sticks.
6. Use play clay/dough to make the outdoor cooking ovens called *pölavikiki*. They were shaped like beehives and made from clay and mud. Make a few small

cooking and water pots, too.

7. Make a kiva by placing a ladder through a short square/rectangle box.

Extension

1. As people we all share the same human needs: shelter, clothing, food, affection, tools, etc. However, we all meet them in different ways. In your study of a Hopi village, the students learned about how the Hopi have constructed their traditional houses using resources available in their environment. For homework, have students walk their neighborhood and draw a neighborhood map showing their house and nearby landmarks. Students can obtain information about the meaning of those landmarks with regard to the history of their neighborhood by talking to their own family, relatives, and neighbors, and consulting sources in the local library. Also ask students to draw a floor map of their house.
2. In class, have students:
 - Compare their house/neighborhood with a Hopi house/village. Ask students to think about the following study questions:
 - A. How is your house and a Hopi house similar/different?
 - B. How is your neighborhood and a Hopi village similar/different?
 - C. Did the materials used to build your house come from your neighborhood, from outside your neighborhood, or a combination of both?

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FRED KABOTIE'S PORTRAIT

Fred Kabotie (1900-1986)



Fred Kabotie's Portrait, from the National Park Service's Grand Canyon National Park Museum Collection, Image 8307, from the Fred Harvey Collection.

FRED KABOTIE'S WATCHTOWER MURAL PAINTING



Fred Kabotie's Watchtower Mural, Grand Canyon National Park. Courtesy of the National Park Service's Grand Canyon National Park Museum Collection.

HOPI CORN DANCE PAINTING



NMAI Collection. Ray Naha (Hopi). *Corn Dance*, 1964. Casien painting. Photo by Fine Art Move. (23/4129)

HOPI CEREMONIAL-CYCLE CHART

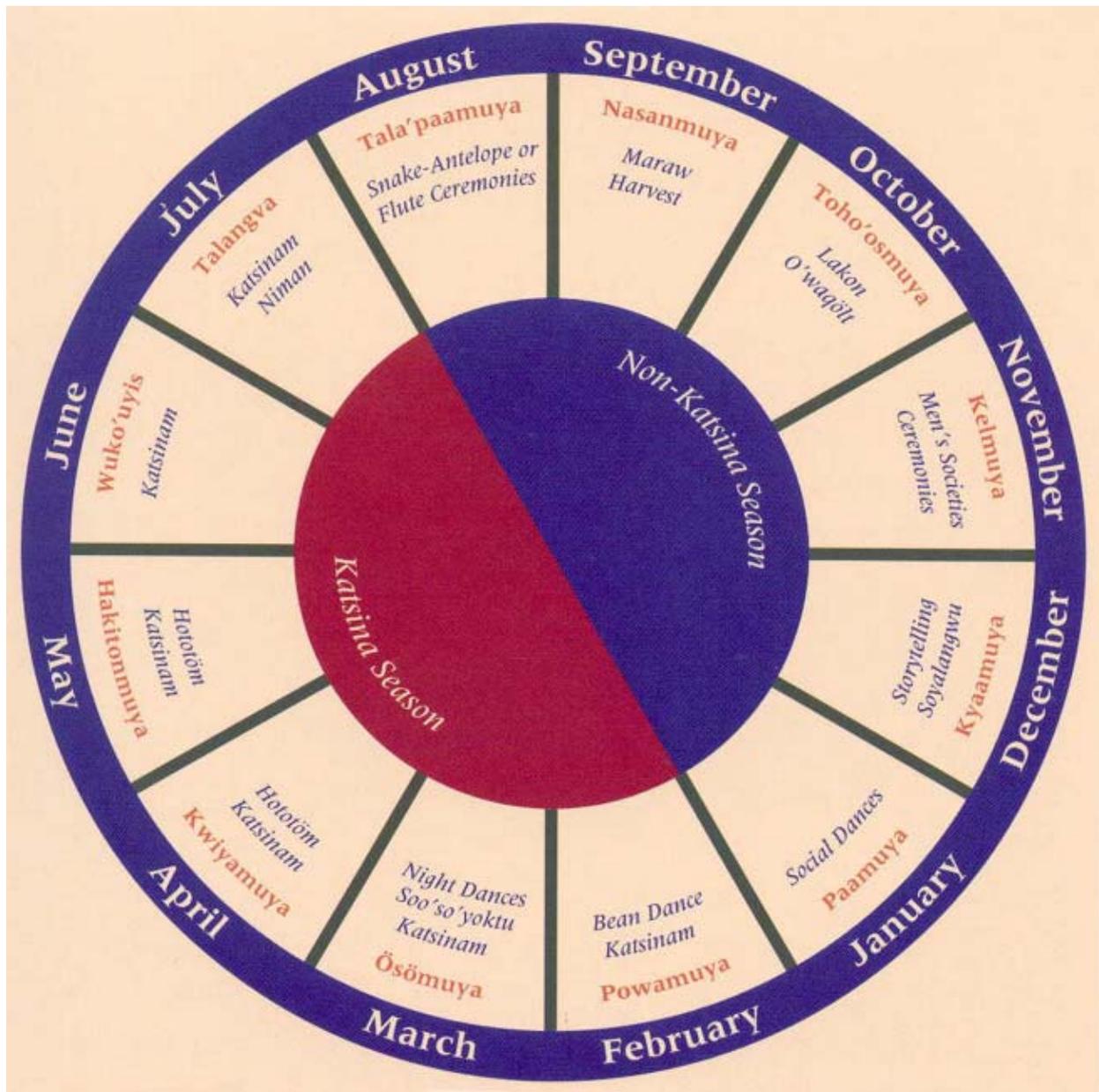


Chart taken from *Following the Sun and Moon: Hopi Kachina Tradition* by Alph Secakuku with The Heard Museum, 1993, Northland Publishing, p. 5. Used with permission of the Heard Museum, Phoenix, AZ.

HOPI AGRICULTURAL CALENDAR

Hopi Monthly Planting Chart/Tarea des Meses			
Month/Mes		Task/Tarea	
January	enero	*****	*****
February	febrero	clear fields	desmontar los campos
Late March	finales de marzo	plant Hopi sweet corn	sembrar el maíz dulce hopi
April	abril	plant early corn	sembrar el maíz temprano
May	mayo	plant "main" corn, melons, beans, squash	sembrar el maíz "principal", melones, frijoles, calabaza
June	junio	apricots harvested (weather permitting)	cosechar los albaricoques (si hace buen tiempo)
July	julio	weeding, hoeing, thinning individual corn plants	desherbar, azadonar, entresacar las plantas de maíz singulares
August	agosto	harvest early corn	cosechar el maíz temprano
September	septiembre	harvest main corn and beans	cosechar el maíz principal y frijoles
October	octubre	harvest main corn, beans, squash and fruits	cosechar el maíz principal, frijoles, calabza y frutas
November	noviembre	harvest main corn and fruits	cosechar el maíz principal y frutas
December	diciembre	final late harvest	ultima cosecha tardía

Read the Hopi Ceremonial-Cycle Chart and Hopi Agricultural Calendar and answer the following questions:

1. How many and when are *katsina* ceremonies held?
2. What main agricultural activities take place during the year?
3. When is corn planted and harvested?
4. Why do you think Hopi people celebrate *katsina* and other non-*katsina* ceremonies during the agricultural cycle?

FRESH CORN ROLLS RECIPE (Nakviki)

by
Juanita Tiger Kavena

Ingredients:

- 6 ears of fresh tender corn
- 1 teaspoon salt, if desired

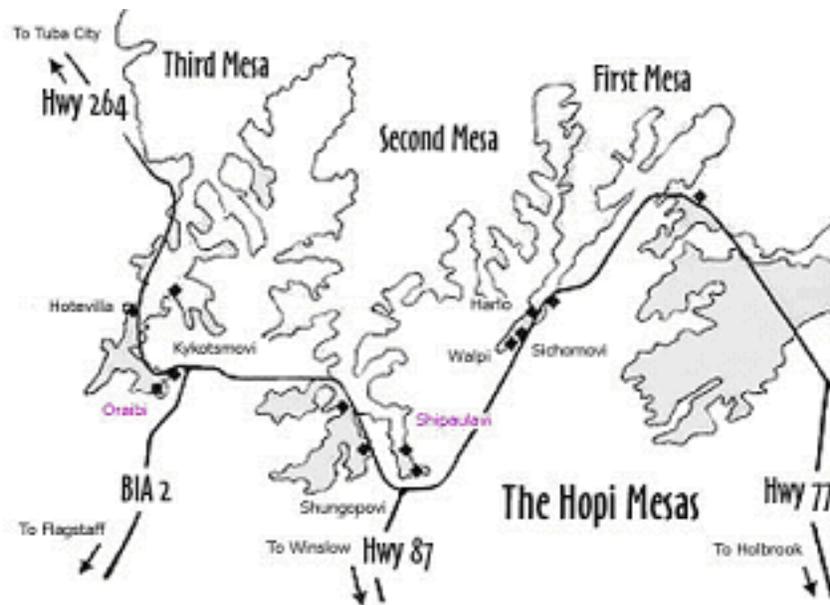
Steps:

1. Remove husks from corn by cutting off ends. Save larger husks and wash them. Remove silks from corn.
2. Cut corn from cob, scraping as much milk from the cob as possible.
3. Grind corn with the fine blade of a hand meat grinder. (An electric blender can be used also, but tends to separate the starch, so it is necessary to stir the corn well.)
4. Add salt and mix well.
5. Put a tablespoon of corn mixture into a clean husk. Fold the left edge of husk over corn, then the right edge. Finally, fold the tip end up towards the center.
6. Stand rolls upright, open side up, in a jelly roll or similar pan.
7. Bake in a preheated 325° F [163° C] oven for thirty minutes, or until corn mixture is solid.
8. Serve as corn bread with stews, soups, or roasted meal.

Nakviki is quite versatile and can be split and browned in butter or oleo to make a delicious breakfast toast. It can also be sliced crosswise and scrambled with eggs.

From *Hopi Cookery*, by Juanita Tiger Kavena. © 1980 The Arizona Board of Regents. Reprinted by permission of the University of Arizona Press. This recipe may not be reproduced in any manner whatsoever without the written permission of the University of Arizona Press.

HOPI VILLAGES MAP



From the Hopi Cultural Center website: www.hopiculturalcenter.com

TRADITIONAL AMERICAN INDIAN DWELLINGS

Circle the most suitable dwelling for the desert of northern Arizona and explain why.

A



B



C



D



All photos from the NMAI Collection. See full credits pg. 3, Activity Sheet and Handout Credits.
A: P12719. B: P10335. C: N21843. D: P03482.

TRADITIONAL HOPI BUILDING MATERIALS

MATERIALS	WHERE CAN YOU FIND THESE MATERIALS ON THE LAND?
1. Sandstone: an abundant material that is found on all the Hopi mesas	a. 
2. Clay: the tops of the mesas provide clay for roofs; clay for mixing mortar is found on the tops and at the bottoms of the mesas	b. 
3. Paint Colors: all the primary colors (yellow, blue, red, black & white) are found on the ancient Hopi land	c. 

<p>4. Long Beams of Pinyon Pine: fir and pine are harvested from Flagstaff and the San Francisco Peaks; cottonwood is found along the washes</p>	<p>d.</p> 
<p>5. Smaller Beams of Juniper: the northern portion of Hopi is full of juniper</p>	<p>e.</p> 
<p>6. Willow, Cliff Rose Bush: willow grows along all the major washes on Hopi; cliff rose bushes grow on the mesa tops</p>	<p>f.</p> 
<p>7. Snake bushes, snake weeds, grass: bushes, weeds and grasses are harvested from the desert in the southern part of Hopi</p>	<p>g.</p> 

TRADITIONAL HOPI BUILDING MATERIALS – Teacher Answers

1-c

2-f

3-d

4-e

5-b

6-g

7-a

Photos A, C, D, F, G from NMAI Indigenous Geography Hopi profile (Photo F © 1999 Nancy Ackerman). Photo B courtesy of Jeff Hughes, National Park Service. Photo E courtesy of Pete Larkin, National Park Service.

A HOPI VILLAGE, FROM FERRELL SECAKUKU'S "COMMUNITY" ESSAY

VILLAGE

Each village has a plaza, called a *kiisonvi*, which is used for the ceremonial dances. In the plaza is a small shrine that represents the center of the universe and a symbol of emergence. There is an entrance to the plaza at each of the four corners, opening onto the four directions. Around and outside the square are houses. Outhouses (bathrooms) were built away from the village, towards the edge of the mesa. Today, most houses are modern and have indoor plumbing and electricity.

Most villages have at least three *kivas*, sacred ceremonial buildings for men and women to hold their ceremonies. Some kivas are located on the edge of the villages, some inside the village squares. At Supawlavi village there are three kivas for the religious societies. They are called Wuwutsimu, or Wuwutsim kiva (an ancient ritual practice represented in the Fourth World by corn); Kwanitaka or Kwan kiva (One Horn); and Aalay'taka or Aal kiva (Two Horn). Kwan kiva is isolated from the other kivas. Some Hopi villages have a fourth kiva, Taatawkya (Singer). Most of the year, men use the kivas for various religious practices. Women can enter the kivas when open ceremonies are ongoing; women also use the kivas for their ritual and dance ceremonies during their specific seasonal time. All villages have a *katsina* resting place, which is usually away from the village below the mesa, where the *katsinam* can rest out of sight during ceremonial dances. During ceremonies, rest areas are off limits to outsiders.

THE HOPI VILLAGE OF ORAIBI



Map taken from John C. Connelly, 1979. "Hopi Social Organization," in *Handbook of the North American Indian*, Vol. 9, Smithsonian Institution, p. 543. Permission courtesy of Smithsonian Institution Libraries.

Study Questions

1. Examine the Hopi village of Oraibi and assess its overall condition. Pay attention to the standing structures, abandoned structures, and deteriorated walls.
2. Focus your attention on the red dotted line rectangle and answer these questions:
 - a. Where is the village plaza? Mark it with the letter "P."
 - b. Where are the four entrances to the village located? Mark them with an arrow.
 - c. Where do you think most of the people live? In single, two, and/or three stories houses?
 - d. How many kivas do you see and where are they placed?

A VIEW FROM WITHIN, FROM FERRELL SECAKUKU'S "FAMILY" ESSAY

HOUSING

The layout of the house was traditionally a single room, which included a kitchen and a living/sleeping area. Everyone slept in the middle of the floor. At meal times, everyone sat on the floor and ate from one pot. Some of the older houses have two rooms, the kitchen being separate and a little smaller than the main room. The bathroom is usually a little structure outside, on the edge of the mesa. Today, most homes have indoor plumbing.

Formerly, homes were built using this method: men would quarry and gather rocks, and women would stack them and use clay as mortar to keep them in place. The roofing materials were gathered and brought to the site by men. The beams were ponderosa pine or Douglas fir. Cedar was used for the cross-pieces or slabs. Elm branches were then placed on top of the cedar cross-pieces. The tall grass that was used on top of the cedar is called *gwagmi*—a wild oat or wild rice. Then finer grasses, snake bushes or snake weeds, were added. Finally, men piled clay four to five inches [ten to thirteen centimeters] thick on top of the roof, so that water would not penetrate through.

Hopi men used to go a long way to get the timber. Today, because of the convenience of modern materials like plywood, it's faster, and also less expensive. Plywood is used for covering the roof over the beams of logs or 2 x 6 [foot: 0.6 x 1.8 meters] pine lumber. The new style home is conventional cinderblocks, Portland cement, and 2 x 6 pine beams with gabled or slightly sloped roofs covered with plywood and asphalt roofing material.

There are two religious symbols that go with the house. One is placed inside, the other outside. The one inside is a niche in the ceiling of the home where prayer feathers are placed during the winter solstice to signify the beginning of the year. This prayer stick for the house symbolizes the strength and prevailing happiness within the house, and keeps balance within the family. The other symbol of strength and happiness for the house is a mark on the wall outside done during Powamaya, which is in February. The Ahula, a germination *katsina*, marks each house with two vertical lines on the walls. This is a symbol of reinforcement of the entire house, including its foundation, and of strength for the people. These two symbols are very important to the Hopi because, according to their belief, they protect families, keep out evil, and keep the family together and happy.