

Lesson 5: Ethnography: How Archeologists Know What They Know

This lesson is divided into four sections: instructional goals, advance preparation, activity, and glossary.

Instructional Goals

Lesson Plan Overview

The student will learn that archeologists use ethnography in their research of human cultures. An aspect of the Pawnee culture is introduced through a reading.

Standards this lesson correlates to

History (2005 Standards for History and Government; Economics and Geography)

Grade 7 Benchmark 1, Indicator 1

Reading (2003 Standards for Reading and Writing)

Grades 6-8 Benchmark 3, Indicator 3
 Benchmark 4, Indicators 3, 4 and 5

Science (2005 Standards for Science Education)

Grades 5-7 Standard 1, Benchmark 1, Indicators 1 and 3
 Standard 1, Benchmark 2, Indicator 2
 Standard 7, Benchmark 1, Indicator 1

Objectives

- The student will use an ethnographic source to research an object.
- The student will compare his/her understanding of an object with and without the use of ethnology.

Skills Taught

Observation, analysis, use of a graphic organizer, drawing conclusions, evaluation of written and nonwritten sources.

Student Prior Knowledge

The student should have an understanding that archeology is the study of past cultures achieved mainly through the study of artifacts and features left behind by these cultures, such as traces of structures or fire pits found in layers of soil. Archeologists use the information they learn to piece together a picture, or description, of the culture that produced the objects. ("Lesson 1: What is Archeology," the first lesson in this manual, will provide students with this basic understanding of archeology.)



Advance Preparation

Prepare Yourself

- Pull items from the trunk that are needed (see “Use These Materials From This Trunk” below).
- Read “Background Information for Teacher” provided below.
- Photocopy Worksheets 11 and 12 as indicated here.
Worksheet 11 and 12 - make one copy per student and one for instructor.
Answer sheet for Worksheet 12 - make one copy for instructor.
- Review lesson plan and Worksheet 11: Pawnee Gardening.
- Decide if Worksheet 11: Pawnee Gardening needs to be pre-taught to the class. Directions for pre-teaching this worksheet are located directly after this lesson, if needed.

Use These Materials From This Trunk

Worksheets 11 and 12

11: Pawnee Gardening

12: Exploring the Bison Scapula Hoe through Ethnography

Graphics 10-12

10: Bison Scapula Hoe

11: Map of Pawnee Territories in Kansas and Nebraska

12: Pawnee Earthlodge Village

Object

Bison scapula hoe blade

Background Information for Teacher

What is ethnography and ethnohistory? Basically ethnography is the systematic recording of human culture, and ethnohistory is the use of this material to interpret, or explain, archeological findings. Examples of ethnology include the writings of Lewis and Clark and other early explorers. When Lewis and Clark set off with the Corps of Discovery, one of their duties was to record what they saw and experienced. They kept detailed journals that included information on Native American cultures they met on their journey. In their journals they recorded what daily life was like and how tools and other everyday items were used.

In *The Lost Universe*, Gene Weltfish writes about the Pawnee. Her work is an ethnographic source about the Pawnee of Kansas and Nebraska. The reading for this lesson explains how the women tended the corn before leaving for the annual bison hunt.

How do archeologists use ethnographies? Archeologists use ethnographies to help explain the function or purpose of their archeological finds. These ethnographies provide archeologists clues about function and use of prehistoric objects and site features. Archeologists look for patterns in the artifacts they find that correlate with the ethnographic sources. They try to determine if the artifacts they find had a use similar to those in the ethnography. Ethnographies do not have all the answers, and there is no guarantee that an interpretation of an object based upon ethnographic information is correct, but it is a place to start and provides one more clue.



Who is Gene Weltfish? After receiving a bachelor degree in journalism, Gene Weltfish enrolled in an anthropology graduate program in 1925. Three years later she went to Oklahoma to study kinship patterns in Siouan tribes and began linguistic studies among the Pawnee. She continued her studies through 1929 and in 1930 spent an entire year living and working among the Pawnee. She left her work with the Pawnee in 1931, at the birth of her daughter, but returned four years later. For a time she focused her fieldwork on social relations and surviving customs and traditions among the Pawnee.

Weltfish broadened her work during the remaining years of her career. From the mid-1930s through the early 1940s she was a prolific writer on race equality. One piece she collaborated on, "The Race of Mankind," was used in the U.S. armed forces and then distributed worldwide until 1944. At that time the pamphlet created internal discord in the U.S. Army because of its "liberal" views on racial equality and their implications. "The Race of Mankind" was an important basis for statements on race published by the United Nations after World War II. In the early 1950s Weltfish was called to testify before Senator Joseph McCarthy's notorious Un-American Activities Committee. This resulted in her termination from Columbia University where she taught. Weltfish continued to write and published *The Lost Universe* in 1965. (For more information see *The Biographical Dictionary of Women in Science: Pioneering Lives from Ancient Times to the Mid-20th Century*.)

Activity

Opening Activity

1. Activate **prior knowledge** by prompting students to recall what they know about archeology. "How do archeologists learn about past human cultures?"

Through the objects and site features (indications in the soil of post molds, pits, hearths, or structures).

Ask the class how they think archeologists use site features to learn about past cultures.

Direct the discussion toward learning about how archeologists use objects and site features to learn about past cultures. In Kansas many of the cultures studied by archeologists had no written language. How do archeologists learn about these people if there are no books, newspapers, letters, etc. to explain the cultures?

2. Show the class the bison scapula hoe blade and Graphics 10, 11, and 12 (drawings of scapula hoe, map, and Pawnee village). Share with the class that objects similar to the scapula hoe blade have been found at sites where Pawnee villages used to be. (Other groups also used similar tools.)

Pass around the scapula hoe blade and drawing of it (Graphic 10) so students can look closely at the scapula.

3. Explain that archeologists know some information from examining the objects from these sites. The archeologists know that
 - The Pawnee built their villages near sources of water.



- The Pawnee lived in earth lodges (large earthen structures that sheltered 40-60 people).
- The Pawnee hunted buffalo.
- The Pawnee grew crops near their villages.
- This bone was the shoulder blade of a bison.
- Bison scapulas were used to make hoes and other tools by the Pawnee and other Native American groups.

Ask the class if there is anything else they might be able to learn about the hoe and its relationship with the Pawnee by looking at it, the map, and the drawing.

4. On the board make 5 columns. Head these columns Who, What, When, Where, and Why.

Using these headings for guidance, have the class share what they know about the scapula. Write their responses in the corresponding column on the board.

The class's knowledge of this piece is probably basic and limited to its function.

Examples of what they should provide might include:

- **Who - Pawnee.**
 - **What - scapula, bison shoulder blade, hoe.**
 - **When - Answers will probably be a date related to a year or perhaps months related to the growing season.**
 - **Where - Answers will relate to the places on the map.**
 - **Why - weeding gardens, cultivating the soil, digging storage pits.**
5. Have the class look at what is written on the board. Explain that it is possible to know the function of a bison scapula hoe without understanding the object's relationship with the culture it is part of.

If more explanation is needed, compare the students' understanding of the scapula with the same type of functional understanding of an object that is part of our contemporary culture.

One example is a trick-or-treat bag from Halloween. Ask the class to imagine you have one of those on your desk. An explanation of the function of the bag would include:

- **On Halloween children go from house to house asking for candy.**
- **Candy is placed in the bag by people answering the door.**

This would explain the function of the object to someone unfamiliar with our Halloween traditions, but it does not do a good job of explaining the relationship of the object to our culture.

The bag's relationship to our contemporary culture includes:

- **the fun of choosing and making or buying a costume**
- **the excitement of going out on a dark Halloween night with friends to go trick-or-treating**
- **the thrill of going through the neighborhood "haunted house"**
- **or the hustle and bustle of a first grade class's Halloween party**



Learning Activity

1. Explain that archeologists have the same type of problem. They want to learn about past cultures from the objects they find and not just the function of the objects themselves. One way to do this is to use ethnographic sources.

Ethnography is a systematic recording of information about a culture. It creates a written documentation of something that is not recorded with a written language.

For example, we normally do not write about how we wash dishes, so there is no written record of this. For someone living 500 years from now who is studying the daily lives of Kansans in the year A.D. 2000, an ethnographic record of this process would provide information that might not otherwise be available.

Archeologists use ethnographies to find clues about the function and use of objects they find. Ethnographies do not have all the answers, and there is no guarantee that an interpretation of an object based upon ethnographic information is correct, but it is a place to start and provides one more clue.

2. Tell the class they will be using an ethnographic source to learn more about the scapula hoe. Introduce the class to the author of the piece before handing it out.
 - **Gene Weltfish began studying the Pawnee in 1928. Her research took her about ten years to complete.**
 - **Her goal was to “understand the Pawnee as people, not as Indians or as social categories and ... not as historical antiques.”**
 - **Through interpreters and by learning the Pawnee language, Gene Weltfish was able to interview members of the Pawnee tribe who were able to speak with her about their lives and the Pawnee culture.**
 - **Through her writings Gene Weltfish shared what she had learned about the Pawnee.**
 - **The work of Gene Weltfish is one example of an ethnography used by archeologists to help them understand what they find at archeological sites of the Pawnee.**

Pre-teach the reading activity at this time if desired. Instructions for pre-teaching [Worksheet 11: Pawnee Gardening](#) are available directly after this lesson if needed.

3. Hand out [Worksheet 11: Pawnee Gardening](#) and [Worksheet 12: Exploring the Scapula through Ethnography](#). Have the students read the piece, or read it together as a class. Students should use this reading to complete [Worksheet 12](#).

Closing Activity

1. Compare the information that the students included on their worksheets with the information they initially recorded on the board.

What are the differences in the type of information available from the ethnographic source and the type of information available from an examination of the object itself?



The ethnographic information should be more detailed. It often takes the researcher's understanding of an object beyond function alone.

2. Have the class predict what problems might arise from using ethnographic sources in research. Questions you might ask them as part of this discussion are:
 - What would happen if the ethnographer was biased or prejudiced?
 - What if the ethnographer did poor research? (Perhaps the time spent on the research was too little to fully understand the topic, or the researcher was not thorough or systematic in recording his/her findings.)
 - What if an ethnography were edited by someone unfamiliar with the topic and important information was left out?

Like any research, the quality of an ethnographic source depends upon the quality of the research carried out and on the researcher himself. As with all research, it is a good idea to use several sources. This helps provide a balanced and unbiased view.

Glossary for Lesson

Ethnography: The branch of anthropology that researches the historical origins and affiliations of cultures.

Ethnohistory: The study of humans through research in historical documents.

Feature: Nonportable archeological remains that provide evidence of use or alteration by humans that is worth noting within an archeological site, such as a hearth, posthole, or cluster of artifacts.

Pawnee: In the sixteenth century the four Pawnee bands – the Skidi, Grand, Tappage, and Republican – were settled in the river valleys of southern Nebraska and northern Kansas. The Pawnee lived in earth lodges. They grew crops of beans, corn, and squash during the growing season. Pawnee lived in tipis when they traveled to hunt buffalo.

Scapula Hoe: A gardening implement made from the shoulder blade of a bison, attached with sinew (tendon or other connective tissue) to a wooden handle.

Sinew: Tendon or tough band of connective tissue. Native Americans used sinew from the leg of a bison as thread.

Storage Pit: A hole dug in the ground and usually specially prepared to store dried foods. Wichita pits were usually bell-shaped and concealed from enemies. The Pawnee also dug bell-shaped pits, carefully lined and sealed, for storage of dried meat and vegetables.



Optional Instructions for Pre-teaching Worksheet 11: Pawnee Gardening

1. Tell the class what they are going to read.
There are two parts to this reading, the prologue and an excerpt from chapter 12. The prologue explains why Gene Weltfish wrote this book. Chapter 12 talks about the time of the year when corn, an extremely important crop for the Pawnee, made the transition from seedling to an “adolescent” plant. (More information on both the prologue and chapter 12 are provided below if needed.)
 2. Read the text of Worksheet 11: Pawnee Gardening to the class.
 3. Give the class a few minutes to quickly reread the piece and highlight the words and phrases they do not understand.
 4. Review vocabulary in the text as needed. Explanations for all underlined words and phrases are provided in this pre-teaching unit.
 5. Have the class read Worksheet 11: Pawnee Gardening on their own.
- Return to the lesson plan at this point.*

What is Gene Weltfish saying in her prologue? Gene Weltfish is explaining that this book is a record of a full year in the life of the Pawnee. The Pawnee culture was closely tied to nature and moved on the same cycle as nature — spring, summer, fall, winter. At the time of her research the Pawnee culture had stayed pretty much the same for 600 years, but she recognized that it was on the verge of disappearing in its traditional form. As the Pawnee became more and more a part of the culture of the United States, their traditional ways of doing things were changing. For example, as the Pawnee began to use tractors, purchase seed, and sell crops for profit, the children of the tribe would no longer know how the Pawnee had grown and used corn historically. Weltfish researched the Pawnee from 1928 to 1936, a time when it was still possible to speak with people who had themselves experienced the Pawnee culture that she felt was changing.

What is chapter 12 about? In chapter 12 Weltfish tells about the ceremonies and activities that take place when the corn plants are moving from the seedling phase to that of young plants. The Pawnee, like other many other cultures, depended upon what they grew and harvested from nature to see them through the days of the year when food could not be grown or harvested. Successful crops of corn, beans, and squash might mean the difference between life and death for members of the village. The corn also needed to be strong enough to survive a summer on the plains without much tending, as the people left the village each summer on their annual bison (buffalo) hunt.

The importance of corn to the Pawnee culture is evident through the ceremonies associated with it and the way it is referred to. Early in this chapter the corn is said to be moving from “a seedling to its ‘adolescence,’” a phrase that seems to humanize, or stress the importance of, this crop. Chapter 12 also talks about the young corn ceremony that takes place at this point in the crop’s growth. “In this ceremony the priests prepared the young corn plant for her role as Mother to all the people.” The words chosen to describe the corn stress its importance as they humanize this crop (“adolescence” and “Mother to all the people”).

The portion of chapter 12 included in this section begins directly after the ceremony.



What do the underlined words in the text mean?

Prologue

account = A recording or telling of. Weltfish was telling the reader about one year in the life of the Pawnee Nation. She chose one year because her purpose was to document the culture and traditions of the Pawnee, and many of these are on an annual cycle.

continued its existence = Maintained its culture and traditions. Weltfish was saying that for 600 years the Pawnee fairly constantly maintained their culture and traditions. Since not much change occurred during those 600 years, she felt the year she documented was fairly representative of Pawnee history.

retaining its integrity = Staying true to its culture. Weltfish believed that the Pawnee traditions and culture remained fairly “pure” or unaltered. They did not change too much or adopt other ways of doing things as they were introduced to other cultural groups. This is similar to the way some ethnic groups continue to prepare and eat foods traditional to their culture after moving to a new place. For example, a Mexican American family might continue food traditions from Mexico after moving to Kansas.

uprooted and dissolved = They moved to a reservation in what is now Oklahoma in 1875 but clung to their traditional village life. The identity of the four bands — Skidi, Grand, Tappage, and Republican — were maintained through the twentieth century.

directly by the citizens = Gene Weltfish learned what she wrote about from the Pawnee who had actually lived with and maintained these traditions. She was not talking to grandchildren who were recounting stories that their grandparents had told them, she was not reading this information from books, and she wasn’t depending upon other people to tell her what they knew about the Pawnee.

in the course of their lives = During the time they were alive.

lost universe = The end of the traditional way of life that the Pawnee had known for 600 years.

Chapter 12

cultivate = To plant and promote the growth of crops. To cultivate land you prepare the soil, plant seeds, remove weeds, fertilize, and otherwise care for it.

corn hills = Like most Native Americans, the Pawnee planted their corn in hills instead of in the rows we are more familiar with today. Soil was hoed into a series of small piles, or hills, and corn seeds placed in the center of each.

earth lodge = The Pawnee lived in earth lodges. These were large, circular structures made from wooden frames covered with soil.

issuing out = In the center of the roof of each earth lodge was a smoke hole. These smoke holes functioned somewhat like a chimney in that they allowed smoke to escape from the small fires built inside the lodges and also admitted some light.

height of presumption = Overly bold. Rude behavior.

report = An explosive noise.

addressed the community at large = Everyone in the village, the “general public.” The “old man” made a public announcement.

disfiguring themselves = A symbolic way of saying that through the work of the women the entire village will eat. The women will get dirty, or disfigured, as they work in the corn field.



completing the preparation = Caring for the corn was one necessary task to complete before the village left for its summer hunt. Caring for the corn included working in the field and holding the young corn ceremony.

The text of Worksheet 11: Pawnee Gardening follows:

The following piece is taken from *The Lost Universe: Pawnee Life and Culture* by Gene Weltfish (Lincoln: University of Nebraska Press, 1965).

“Prologue

The Lost Universe is an account of one year in the life of a six-hundred-year-old American Indian nation that continued its existence within the United States through the Civil War period, retaining its integrity as a nation until it was uprooted and dissolved in 1876.

This is the story as told directly by the citizens who were part of it in those last years and who, in the course of their lives, saw it become a lost universe.”

Chapter 12: Closing Episode of Planting Period

The first several pages of this chapter describe the end of planting season when the corn plants move past their seedling, or very young and delicate, phase. Seedlings need to be healthy so they can grow into strong, mature corn plants. This is an important time for the Pawnee who leave their homes, and the corn plants, during the summer as they go on their annual bison hunt.

A poor crop might mean the difference between living or dying during the following winter. A special young corn ceremony took place each year to help assure a healthy corn crop.

“Until this ceremony was completed, no woman could go into her field and begin to weed and cultivate it. Now the women all went into their fields carrying their hoes. First they would pull out the weeds one by one from the corn hills by hand and then pile up the earth around the young growing plants. The corn was hilled up so high around the plant that the leaves barely stuck out at the top; they were compared with an earth lodge with the smoke issuing out of the smokehole in the roof.

It was early morning and the dew had fallen, and as the women worked around and around the corn hills their bodies would get soaking wet. After they had hilled up the earth around the plants, the women would kneel close to the hill and pat it all around with their hands to make it smooth and even. The woman’s left side, as well as her face and hands, would become covered with mud. To mention this fact to a woman on her way home from the fields would be the height of presumption. On the way home everyone took a swim in Beaver Creek and washed off their hoes. Again the young women splashed with their feet on the surface of the water and tried to make as loud a report as possible by slapping the surface of the water with their hands. The old man again sat up on his earth lodge and addressed the community at large. He reminded everyone that the women were now “disfiguring themselves” for him, getting all muddy, and that while their hoes were still full of mud, all of them [the people in the village] would be eating the food that the women had raised. Some of the women went in groups to cultivate the previously planted fields of their new daughters-in-law, singing while they worked together and again enjoying a festive meal at their daughter-in-law’s house afterward.

Now at the beginning of June everyone’s mind was turned to completing the preparation for leaving on the summer hunt. They would weed and cultivate the corn plants and hill up the earth



once more just before leaving, when the plants were about 3 ½ feet high. The present Nebraska farmer says, ‘Knee high by the fourth of July’ and the Pawnee said, ‘Tall enough to tickle the horse’s belly.’

