
Lesson 4.5

A SIOUAN VILLAGE

Subjects: social studies, language arts, science.

Skills: knowledge, comprehension, application, analysis.

Strategies: decision making, problem solving, discussion, classification, writing, research skills, scientific inquiry.

Duration: 30 to 45 minutes.

Class Size: any.



Ceramic pot from Orange County, North Carolina, ca. AD 1700.

Objectives

In their study of an excavated village site, students will:

- record observations about a site feature;
- infer how past peoples used individual features and the site as a whole;
- summarize how archaeologists use observation and inference to determine past lifeways.

Materials

For the teacher, transparencies of “Child’s Bedroom,” “Observation and Inference Organizer,” and “Jenrette Site Map” to project. For each group of students, copies of “Observation and Inference Organizer,” “Child’s Bedroom,” “Jenrette Site Map,” and one “Feature Card” with related “Artifact Cards.” For each student, a “Research Team Report.”

Vocabulary

Artifact: any object made, modified, or used by humans; usually this term refers to a portable item.

Context: the relationship artifacts have to one another and the situation in which they are found.

Feature: a human-made disturbance in the ground, such as a pit or basin; it is often marked by a distinctive stain in the soil.

Function: the use of an object.

Inference: a conclusion derived from observations.

Observation: the act of recognizing or noting a fact or occurrence; or the record obtained by such an act.

Palisade: a walled enclosure built around a village or town; a stockade.

Site: a place where human activities occurred and material evidence of these activities was left.

Background

Archaeologists use *observation* and *inference* to learn the stories of past people. By observing *features* and artifacts at archaeological *sites* and the context in which they are found, archaeologists can then make inferences about the behavior and lifestyle of the people who lived there. When archaeologists find the remains of a large village (observation), they could infer that the people who lived there were farmers. To test that inference (hypothesis), they would look for

evidence of farming, such as farming implements (like hoes), and food remains from crops (like corn cobs and squash seeds). If they find these things, their hypothesis is verified. These inferences become the bases for hypotheses that can be tested as more contemporary sites are found and excavated.

One archaeological site scientists have studied in North Carolina is called the Jenrette site, which is located along the banks of the Eno River in central Orange County. Excavations were conducted there in 1989 and 1990. The Jenrette site is what remains of a 17th-century Siouan village. Siouan refers to the language family of people living in the Piedmont at the time Europeans arrived. There were at least ten different tribes, many of which spoke a distinctive Siouan dialect. The Jenrette site was home to one group. From the 90 features archaeologists mapped and excavated there in 1989–1990, the village had at least three buildings located within a *palisade*. Archaeologists also found places near and between the buildings where people had dug earthen basins for different purposes, such as smoking deerskins, preparing food, and discarding trash. In other places in the village, there were graves where people had buried their dead.

Archaeologists have specific names for each type of feature they find. Some of these are defined below:

A *food-preparation pit* was used to cook food. People dug a large, shallow pit and then layered the bottom with wood and rocks. The wood was lit and allowed to burn, creating a bed of glowing coals and hot rocks. A deer was roasted by covering this bed with leaves, placing the animal on top, then covering the pit with additional leaves and earth. When found by archaeologists, such pits typically contain charcoal, fire-cracked rocks, as well as the bones of the animals that were cooked and eaten.

Storage pits were used to store possessions. Rather than carry possessions with them on hunting or other trips away from the village, people hid them underground. Storage pits were usually deep round holes with straight sides and flat bottoms. People put food or other items in such a pit, placed a cover over the top, and then concealed the cover with a layer of soil. Since people eventually removed their things from the storage pits, archaeologists digging today generally find few artifacts that had actually been kept in the pits. Sometimes, archaeologists identify storage pits just by their distinctive shape. However, it appears that people often filled these pits with trash after they were no longer needed for storage. Archaeologists typically find refuse from everyday activities, such as broken pots, animal bones, charcoal, chipped stone, and glass beads in these pits. Thus, most storage pits eventually became trash pits.

A *smudge pit* was a shallow hole used to prepare animal hides. People used corncobs, which burned slowly with little flame and a great deal of smoke, to fuel the fire to smoke deer skins. These smoked skins were then used for clothing, shoes, and other items. Smudge pits were often located outside or near the edges of villages, perhaps due to the amount of smoke they produced. When archaeologists excavate smudge pits, they discover burned corncobs and charcoal.

Setting the Stage

1. Project the “Child’s Bedroom” photo.
2. Show the students the “Observation and Inference Organizer” and review the meanings of observation and inference (see Vocabulary).
3. Record the student’s observations about the child’s bedroom. For example, there are ballet and tap shoes on the shelves; there are several alarm clocks; there is fishing gear.
4. Ask what inferences they could make based on these observations. For example, the room’s

occupant is a dancer; she has a hard time waking up in the morning; she likes fishing. Stress that inferences are conclusions based on the facts gathered through observation.

Procedure

1. Project “The Jenrette Site” map for the class. Tell the class that this map shows only part of the village area archaeologists have excavated. Point out the main palisade, the three buildings, and several of the features that archaeologists found there. Describe how three kinds of features—the food preparation, storage, and smudge pits—were used and how archaeologists identify them (see Background). Emphasize that archaeologists make inferences about how people used these features by examining the artifacts found in them and by looking at the relationship of all the different features. (Note that on “The Jenrette Site” map, features are the larger, roundish circles. The ones used for this exercise are darkened and numbered. The buildings are labeled as Structure 1, Structure 2, and Structure 3. The palisade line is also labeled; the closely spaced, black dots show where each wooden pole was placed.)

2. Divide the class into research teams made up of 4 to 5 students. Each team will study the artifacts found in a feature of the Jenrette site.

3. Distribute the following to each group: an “Observation and Inference Organizer,” “The Jenrette Site” map, one “Feature Card,” and the corresponding “Artifact Cards.” The list of artifacts associated with each feature follows.

- Feature 71: pottery sherds, chipped stone flakes, deer bones, glass trade beads, pipe.
- Feature 77: deer antler, grinding stone, deer bones, pottery sherds.
- Feature 78: fire-cracked rocks, pottery sherds, charcoal, deer bones.
- Feature 96: turtle shell, deer antler, deer bones, pottery sherds, mussel shells, charcoal.
- Feature 113: ash, charcoal, charred corn cobs.
- Feature 114: charcoal, charred corn cobs.

4. Give the following assignment: You are a research team investigating the Jenrette site. You are assigned one feature of the site and the artifacts found in it. First, record your team’s observations about the feature, especially about where it is located in the site, its size and shape, and what artifacts were found in it. Based on your observations, infer what the feature was used for. Record your inferences. Once you have recorded your observations and inferences, plan a way to present your findings to the class.

5. Make a copy of each team’s “Observation and Inference Organizer” and distribute it to the other teams. Each team considers all of the information and infers how the site was used. Teams present their findings and compare conclusions.

Closure

1. Each team presents to the class its findings.
2. Ask students to consider conclusions reached by other teams. Did they gain additional insights after listening to the other reports?
3. Have students summarize what they learned about how archaeologists use observations to make inferences.
3. Have students discuss how their findings would have been affected if a relic collector had dug into the Jenrette site, removing or displacing artifacts and other evidence from their original placements.

Evaluation

Students use the “Research Team Report” form to individually write a report on their team’s findings.

Links

Part 1: Lessons 1.1–1.8.

Lesson 2.9: “Looking at an Object.”

Lesson 3.4: “The Village Farmers.”

Lesson 5.4: “Artifact Ethics.”

Sources

Binford, Lewis R. 1967. “Smudge Pits and Hide Smoking: The Use of Analogy in Archaeological Reasoning.” *American Antiquity* 32(1), pp. 1–12.

Dickens, Roy S., H. Trawick Ward, and R. P. Stephen Davis, Jr., eds. 1987. *The Siouan Project: Seasons I and II*. Monograph Series 1. Chapel Hill: Research Laboratories of Anthropology, University of North Carolina at Chapel Hill.

Ward, Trawick, and R. P. Stephen Davis, Jr. 1993. *Indian Communities on the North Carolina Piedmont, AD 1000 to 1700*. Monograph Series 2. Chapel Hill: Research Laboratories of Anthropology, University of North Carolina at Chapel Hill.

Ward, H. Trawick, and R. P. Stephen Davis, Jr. 1999. *Time Before History: The Archaeology of North Carolina*. Chapel Hill: University of North Carolina Press. [The image in this lesson’s main heading is taken from Figure 7.9.]

“Jenrette Site” Activity Sheet Answers:

Features 78 and 96 are food-preparation pits. Features 113 and 114 are smudge pits. Features 71 and 77 are storage pits reused as trash pits. A more detailed consideration of each feature follows.

Feature 71 has a size and shape that suggest it had first been used as a storage pit. The hole is round and deep, with straight sides and a flat bottom. The soil and artifacts excavated from the pit had been discarded as village trash. (Artifacts: pottery sherds, chipped stone flakes, deer bones, glass trade beads, pipe.)

Feature 77 has straight side walls and a flat bottom. A large number of artifacts, including pottery fragments, animal bone, charcoal, and deer antler fragments, were found in this pit. Its size and shape suggest it was originally constructed as a storage pit, but later filled with trash. (Artifacts: deer antler, grinding stone, pottery sherds, deer bones.)

Feature 78 is a shallow basin containing two layers of fill. The bottom layer, which was put in first, had fired clay and ash left from the fires built to cook food. The top layer was dark organic soil that resulted from discarded bone and other food remains put there after the food was eaten. (Artifacts: fire-cracked rocks, pottery sherds, charcoal, deer bones.)

Feature 96 is a rounded basin containing rich dark brown soil with many animal bones, pottery fragments, charcoal, and mussel shell. The pit was used first to prepare food; then artifacts were thrown into it after feasting. (Artifacts: turtle shell, deer antler, deer bones, pottery sherds, mussel shells, charcoal.)

Feature 113 is a shallow basin located just inside the palisade line. Its size, location and shape, along with the presence of charcoal and burned corn cobs suggest that this was a smudge pit. (Artifacts: ash, charcoal, charred corn cobs.)

Feature 114 is a small pit located just outside of the palisade. Several corncob fragments and pieces of charcoal were found in the pit, suggesting it had been a smudge pit used to prepare and tan hides. (Artifacts: charred corn cobs, charcoal.)

Child's Bedroom



Observation and Inference Organizer

Feature Number:

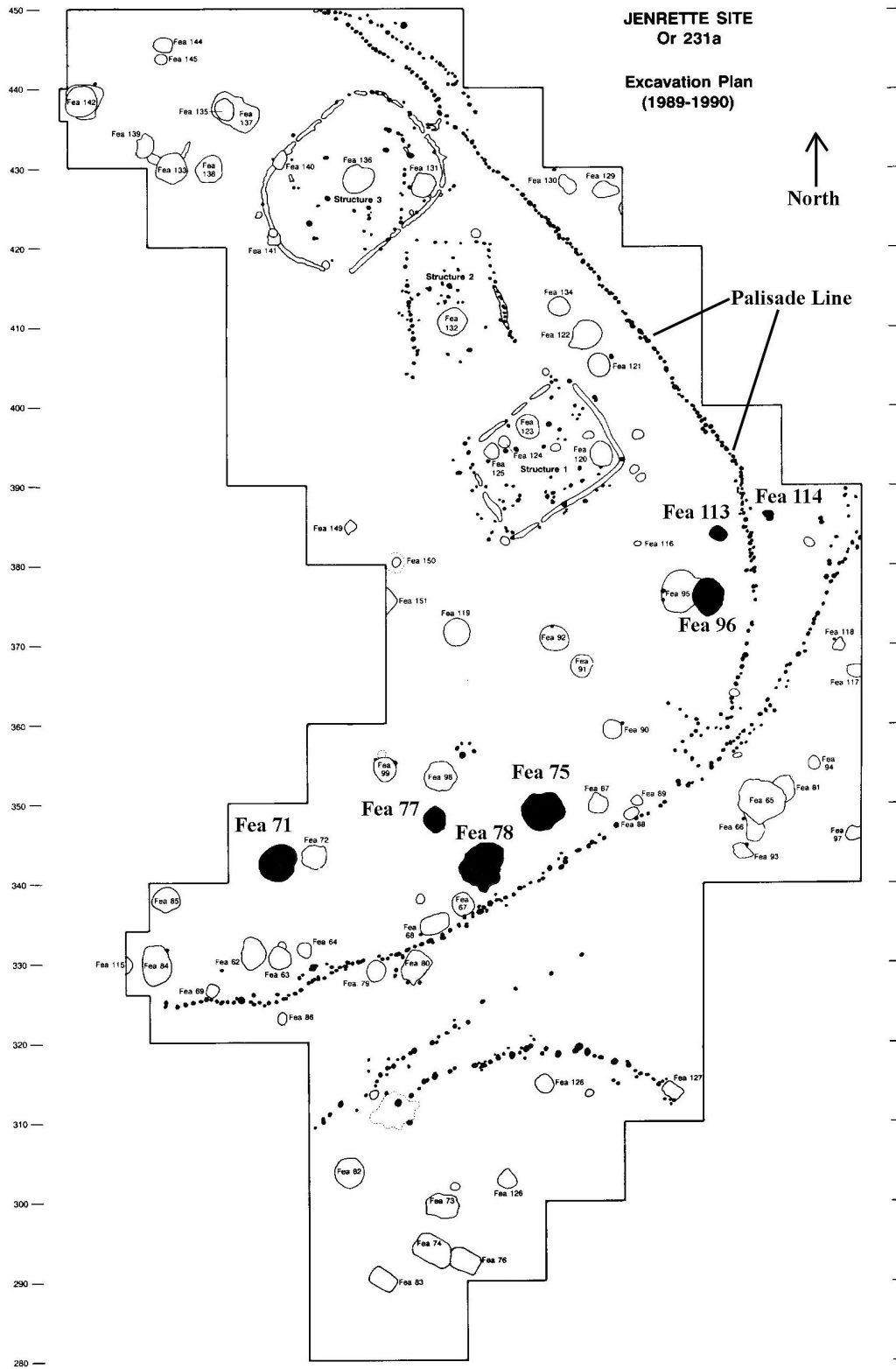
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Observations

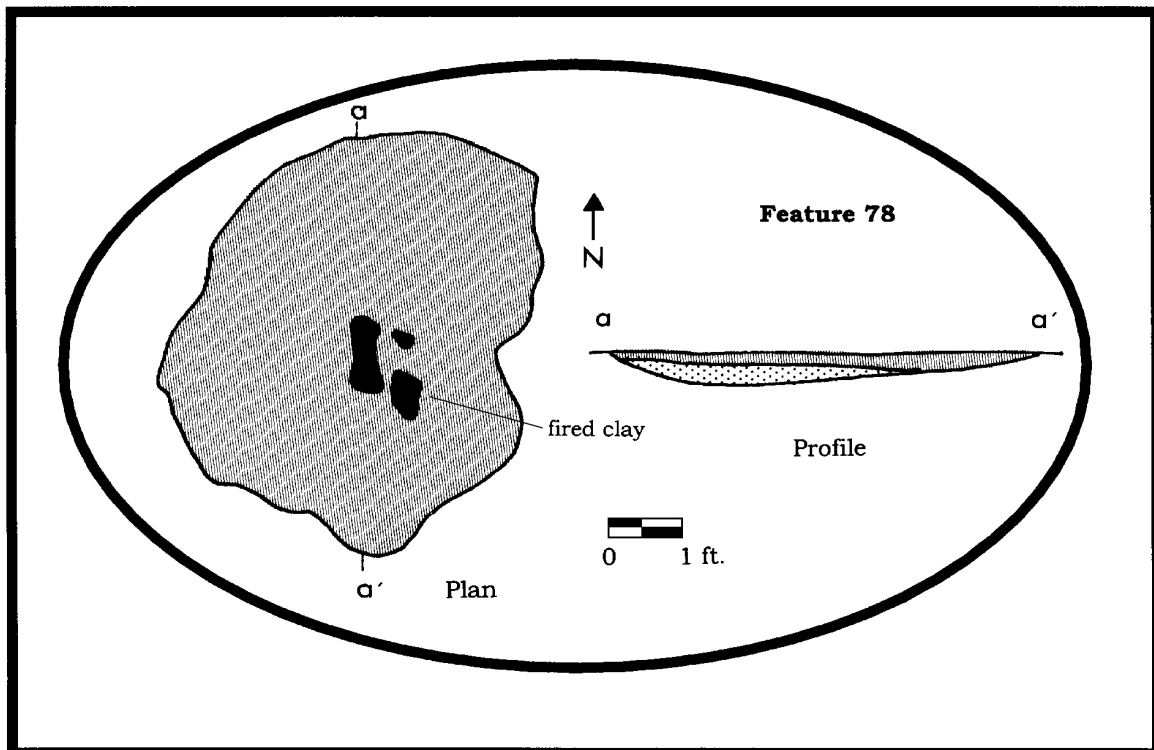
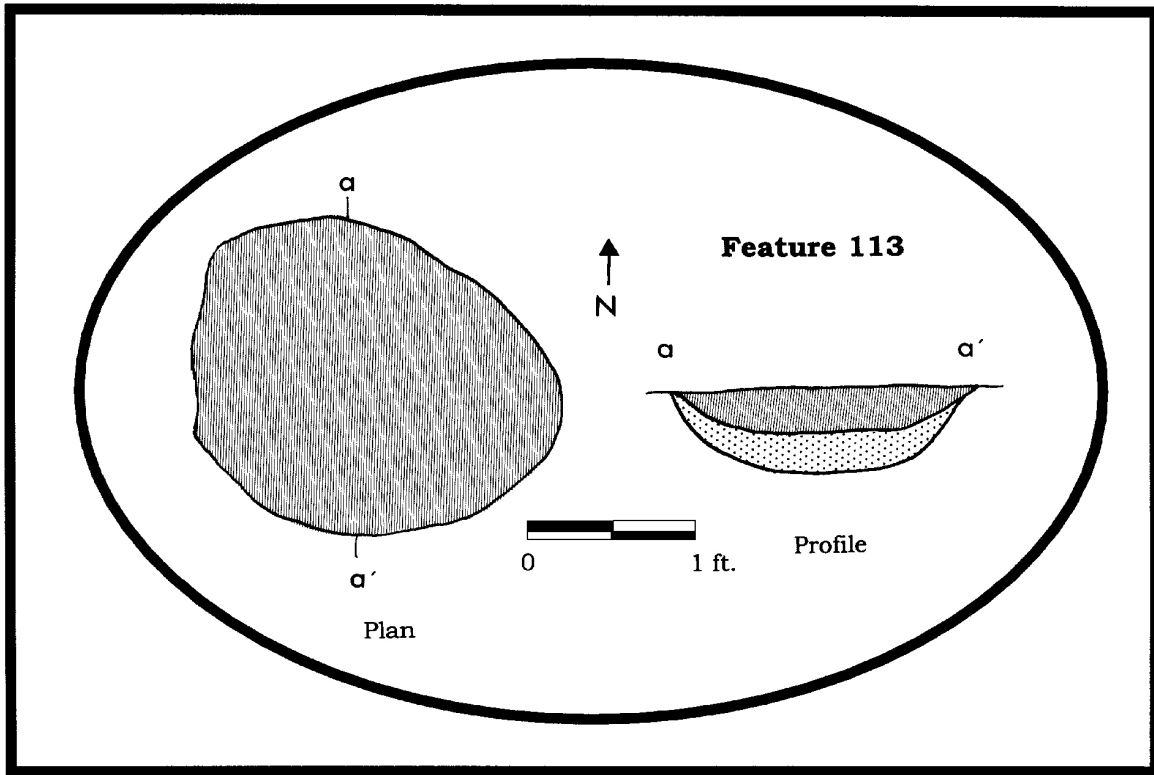
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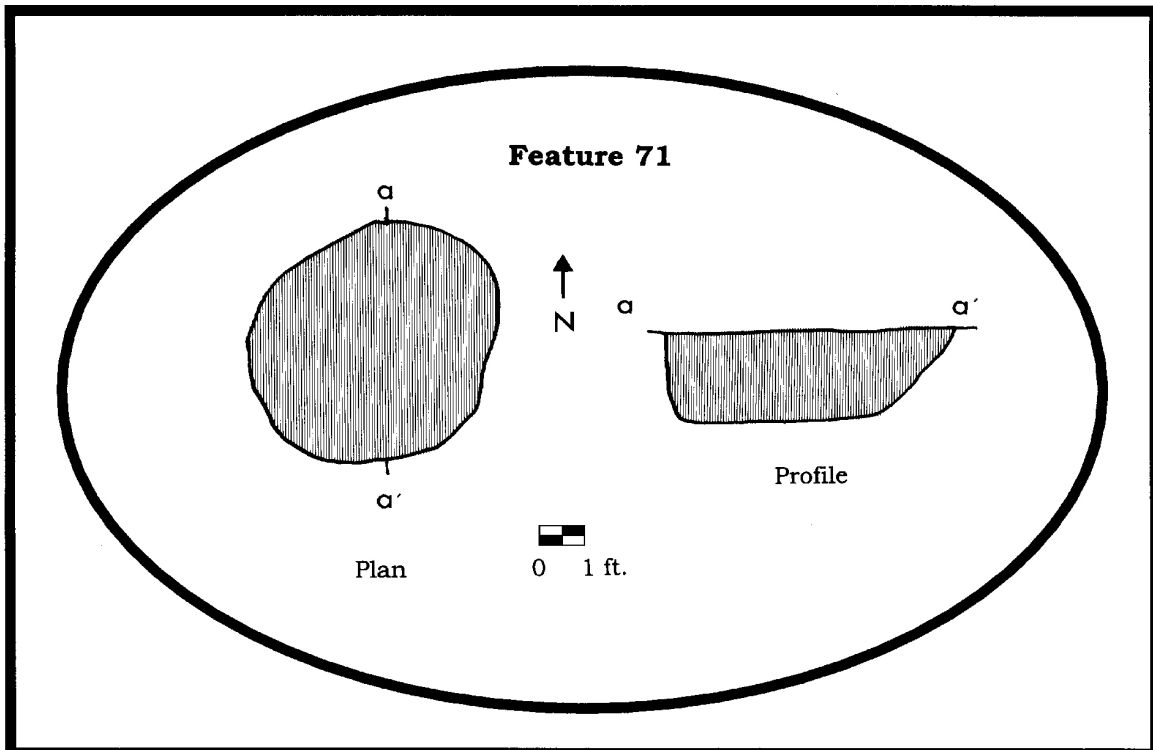
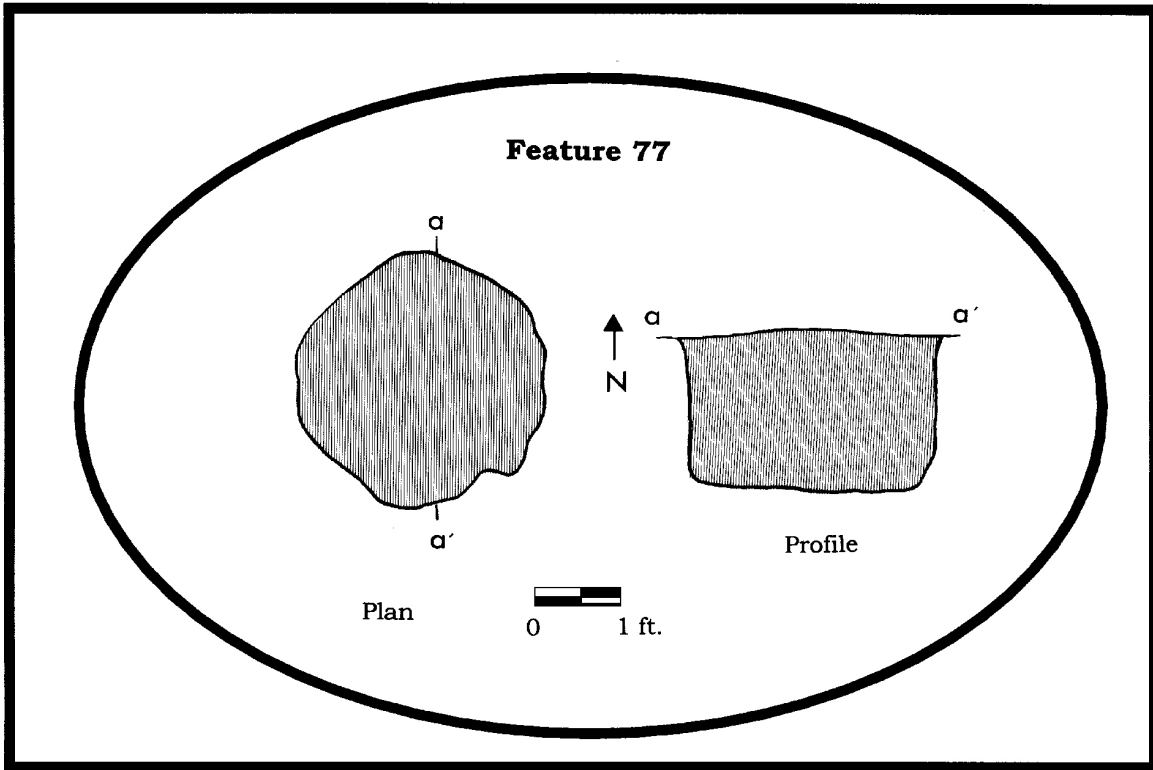
Jenrette Site Map



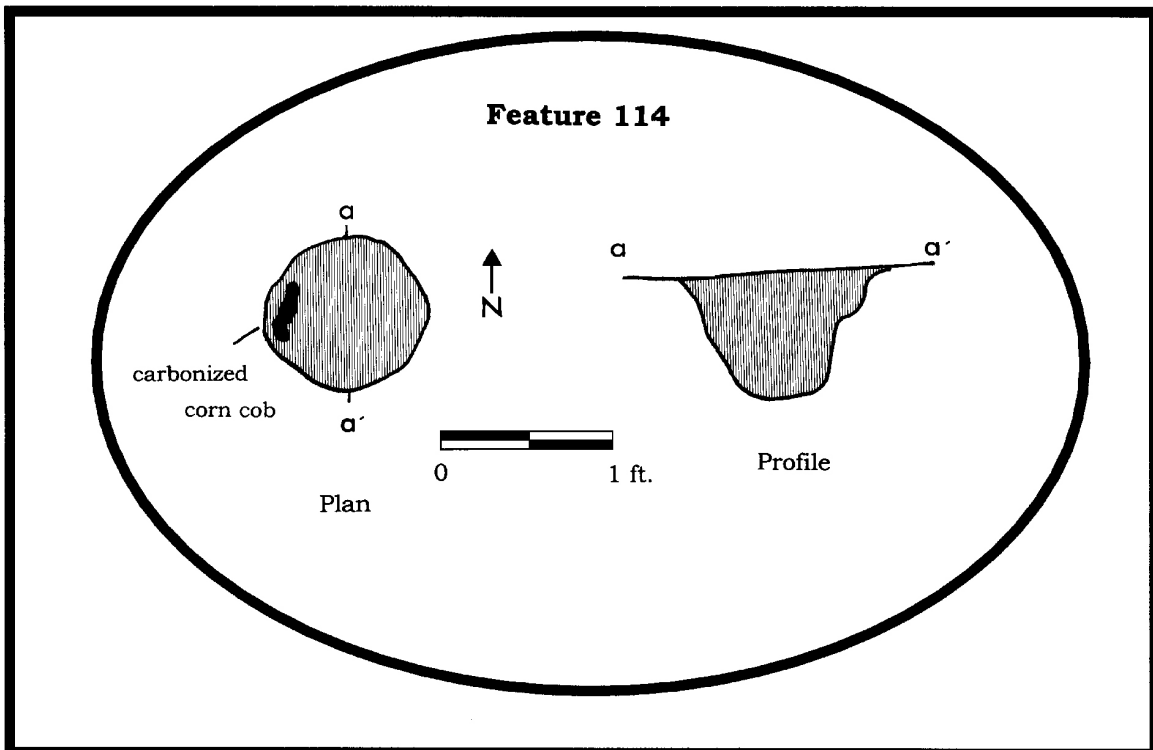
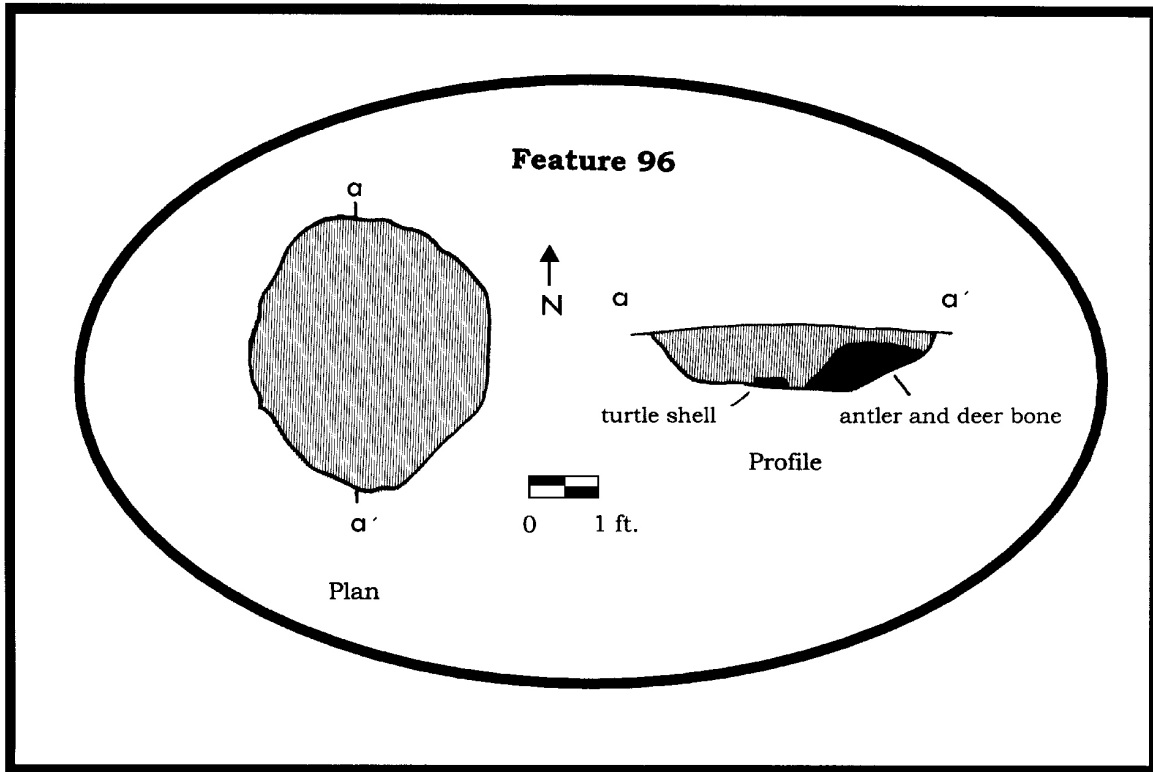
Feature Cards (Page 1)



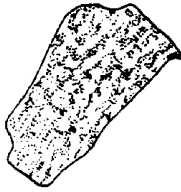

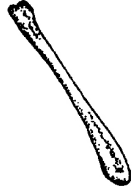
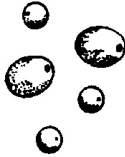

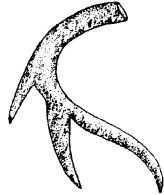

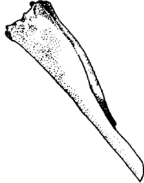




Feature Cards (Page 2)




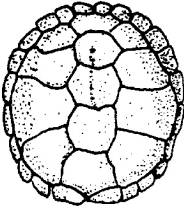
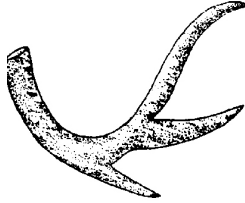
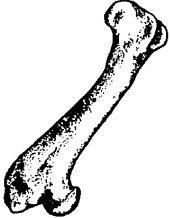





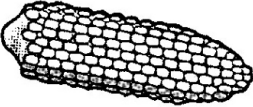

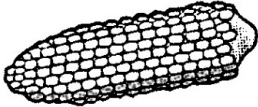
Feature Cards (Page 3)



Artifact Cards (Page 1)

<p>Feature 71</p>  <p>Pottery sherds</p>	<p>Feature 71</p>  <p>Chipped-stone flakes</p>	<p>Feature 71</p>  <p>Deer bones</p>
<p>Feature 71</p>  <p>Glass trade beads</p>	<p>Feature 71</p>  <p>Pipe</p>	<p>Feature 77</p>  <p>Deer antler</p>
<p>Feature 77</p>  <p>Grinding stone</p>	<p>Feature 77</p>  <p>Deer bones</p>	<p>Feature 77</p>  <p>Pottery sherds</p>
<p>Feature 78</p>  <p>Fire-cracked rocks</p>	<p>Feature 78</p>  <p>Pottery sherds</p>	<p>Feature 78</p>  <p>Charcoal</p>

Artifact Cards (Page 2)

<p>Feature 78</p>  <p>Deer bones</p>	<p>Feature 96</p>  <p>Turtle shell</p>	<p>Feature 96</p>  <p>Deer antler</p>
<p>Feature 96</p>  <p>Deer bones</p>	<p>Feature 96</p>  <p>Pottery sherds</p>	<p>Feature 96</p>  <p>Mussel shells</p>
<p>Feature 96</p>  <p>Charcoal</p>	<p>Feature 113</p>  <p>Ash</p>	<p>Feature 113</p>  <p>Charcoal</p>
<p>Feature 113</p>  <p>Charred corn cobs</p>	<p>Feature 114</p>  <p>Charcoal</p>	<p>Feature 114</p>  <p>Charred corn cobs</p>

Research Team Report

Name:

Research team members:

Feature observed (write its number):

Summary of observations (include artifacts and location):

Based on our observations, we infer that our feature is (circle one answer):

- a storage pit reused as a trash pit;
- a smudge pit;
- a food preparation pit.

Explain your inferences and how they are based on your observations: