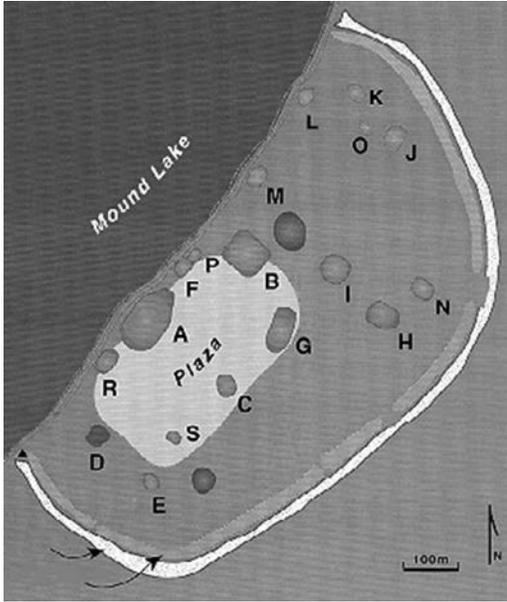


Seed Change at Toltec

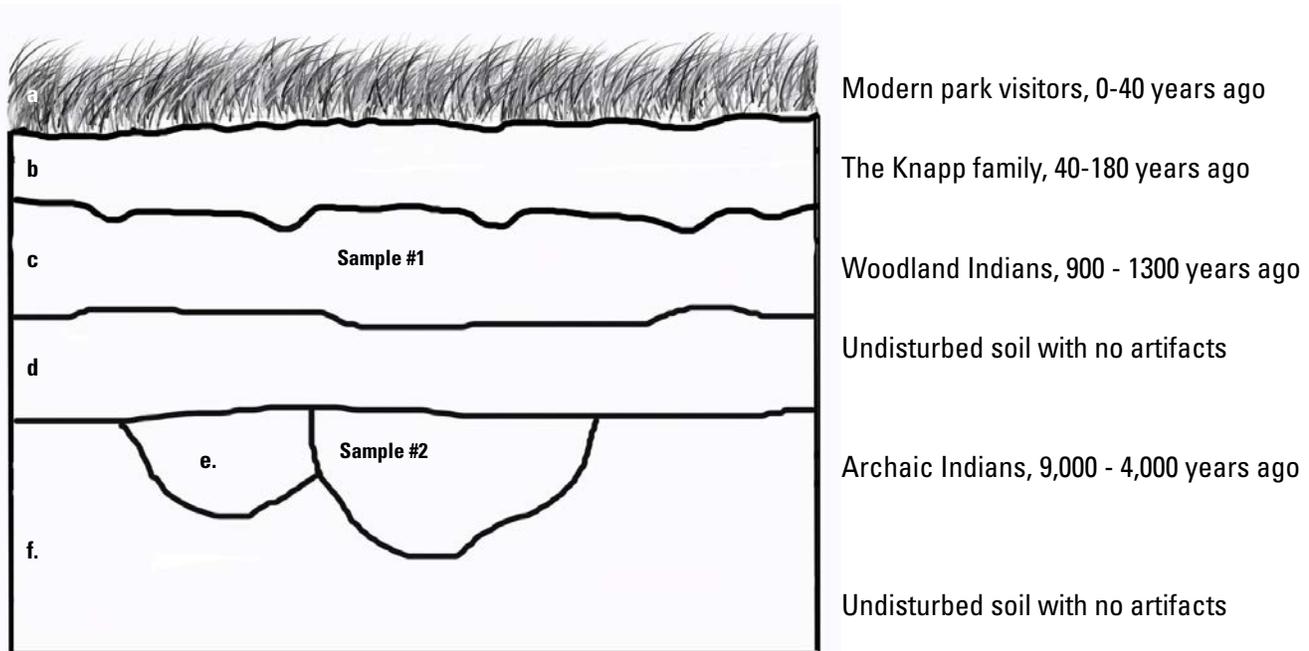


Plan map of Toltec.

Dr. Boxwood excavated next to Mound S near the edge of the plaza at Toltec. It was a deep unit with many layers, or **stratum**. In one of the upper strata, it had a thick **midden**, or trash, layer with large amounts of deer, fish, and turkey bones, and well made, decorated pottery (Sample #1). In the lower stratum, below an undisturbed layer of soil with no artifacts, Dr. Boxwood found several small pits (Sample #2). A pit is a hole dug into the ground and used to store things, like seeds and nuts. Unlike the midden strata, there was no pottery in the small pits. But Dr. Boxwood found an older style spear point. Archaic Indians filled up the pits with trash when they stopped using them for food storage.

During the excavation, Dr. Boxwood drew a map like the one you looked at in Lesson One and a profile map. A profile map is a carefully measured, detailed drawing of the side of an excavation unit. A profile map shows the **stratigraphy**, or layers of soil from the top of the ground down to however deep the archeologist dug the excavation unit. It is like a timeline. The layers on the bottom

of the profile are older (date to longer ago) than the deposits higher up, which were deposited later and are younger. To get started, let's look at Dr. Boxwood's profile map to examine the stratigraphy of the site.



1. Who left the artifacts in each level?

- a. _____
- b. _____
- c. _____
- d. No artifacts found
- e. _____
- f. No artifacts found

2. Which people came first?

3. Which people came last?



Seeds are too small for archeologists to find with their digging tools. But seeds tell archeologists what people grew and ate in the past. During the excavations, Dr. Boxwood collected two soil samples to find ancient seeds. She took Sample #1 from the upper midden deposit and Sample #2 from the small pits. Dr. Boxwood sent the soil samples to Dr. A. Triloba, an archeologist who studies ancient seeds. She also sent the profile map to help Dr. Triloba understand the context. Dr. Triloba put the soil samples in a machine that uses flowing water to separate the seeds from the soil. Use the profile map and seeds to help Dr. Triloba with the analysis.

4. Look at the magnified seeds that your teachers is projecting. Compare them with the ones Dr. Triloba found in the flotation samples. Name and count the seeds for each sample.

Sample #1, upper midden strata

Seed #1 _____

Count _____



Seed #2 _____

Count _____



Seed #3 _____

Count _____



Seed #4 _____

Count _____



Seed #5 _____

Count _____



Sample #2, lower midden filled pits

Seed #1 _____

Count _____



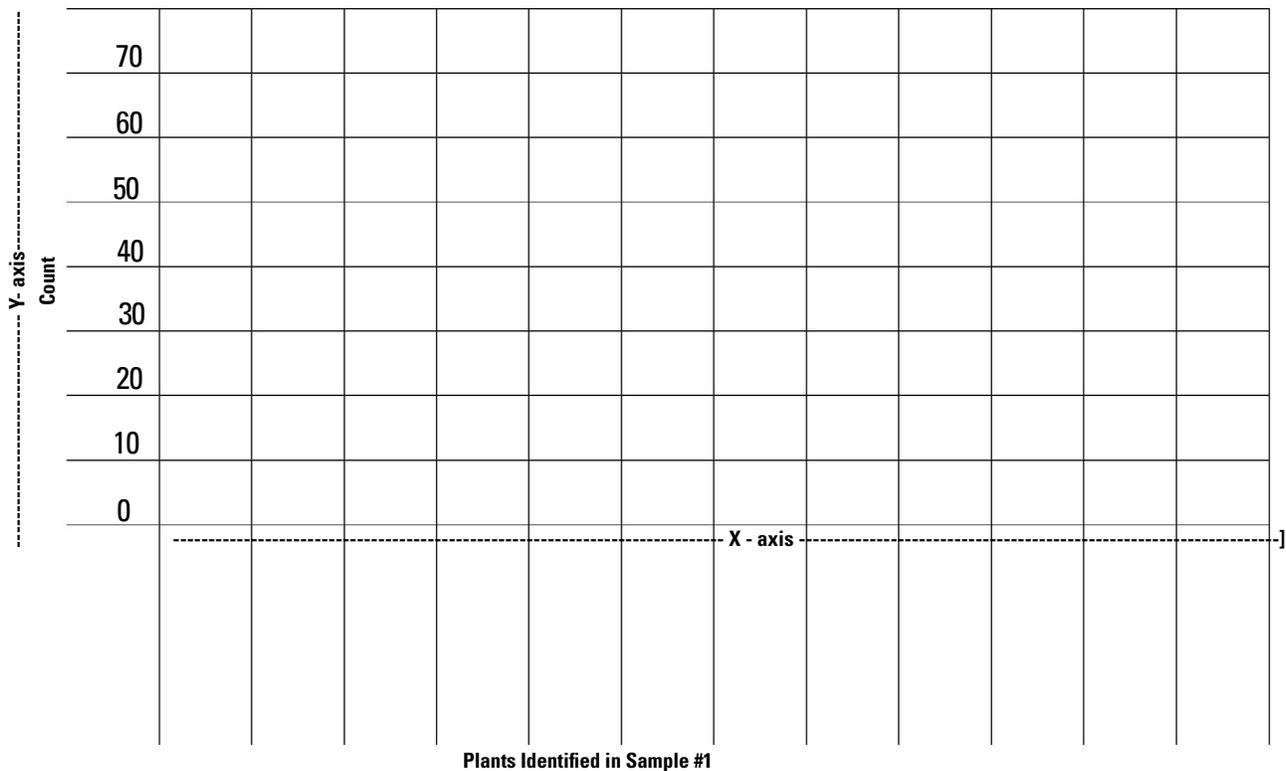
5. Dr. Triloba is completing the Triloba Lab Worksheet with the plants she identified from the samples. Add the name and the total number of seeds that you named from Sample #1 to help her complete the form.

Triloba Lab Worksheet

Sample # 1 Test Unit A Initial Sample Size 10 liters Date _____

Identified plant remains	Count
Hickory	<u> 10 </u>
Walnut	<u> 2 </u>
Acorn	<u> 2 </u>
Blackberry seed	<u> 10 </u>
Persimmon seed	<u> 20 </u>
Bottle gourd rind	<u> 1 </u>
Bottle gourd seed	<u> 10 </u>
Seed #1 _____	_____
Seed #2 _____	_____
Seed #3 _____	_____
Seed #4 _____	_____
Seed #5 _____	_____

6. Look at the Triloba Lab Worksheet. Write the names of all of the plants identified in Sample #1 on the x-axis. Use the count for each plant to complete the bar graph, but do not fill in or shade the bars yet.



7. Look at the **Seasonal Plant Use in the Woodland Period** table. Which of the plants from Sample #1 are wild plant foods? Which are domesticated plant foods? Shade in the columns of all of the wild plants in the bar graph.
8. Use the **Seasonal Plant Use in the Woodland Period** table to look up each plant from Sample #1. Record the season the plant is harvested and eaten.

Spring	Summer	Fall	Winter

9. Now it is time to help Dr. Triloba interpret the findings. Based on the graph and the table for Sample #1, were people foraging for wild foods or farming plants? How do you know?
10. Help Dr. Triloba complete the Triloba Lab Worksheet for Sample #2. Add the name and the total number of seeds that you identified to the form.

Triloba Lab Worksheet

Sample # 2 Test Unit A Initial Sample Size 10 liters Date _____

Identified plant remains

Count

Hickory 30

Walnut 5

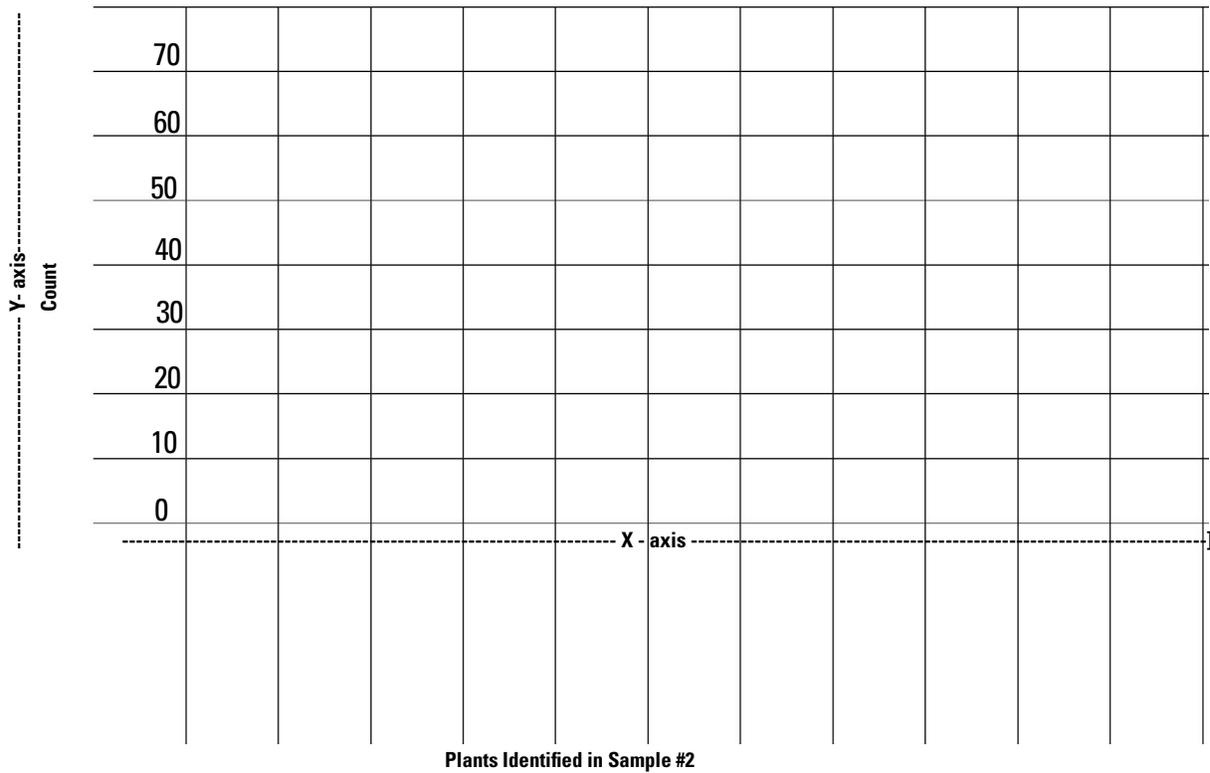
Acorn 15

Persimmon seed 20

Seed #1 _____



11. Look at the Triloba Lab Worksheet. Use the count for each plant to complete the bar graph. Write the names of the plants identified in Sample #2 on the x-axis. Do not fill in the bars yet.



12. Look at the **Seasonal Plant Use in the Woodland Period** table. Which of the plants from Sample #2 are wild plant foods? Which are domesticated plant foods? Shade in the columns of all of the wild plants in the bar graph.
13. Look at the **Seasonal Plant Use in the Woodland Period** table. Look up each plant from Sample #2 on the Triloba Lab Worksheet and record what season it is harvested and eaten in the table. You can place the plant in more than one season.

Spring	Summer	Fall	Winter



14. Let us help Dr. Triloba interpret the findings. Based on the graph and the table for Sample #2, were people foraging for wild foods or gardening? What is your evidence?

15. Look back at the profile map, based on the location of Sample #1 and Sample #2 in the stratigraphy, what are the dates for the samples?

Sample #1 date range _____

Sample #2 date range _____

16. Remember that the Toltec Site is a ceremonial center during the Woodland Period. The midden had lots of deer bones and decorated pottery. If the ceremony took place in the fall, what do the seeds in Sample #1 tell you about ceremonial food?

17. If Toltec was a base camp during the Archaic Period, what do the seeds from Sample #2 say about Archaic Period foodways?

18. Think back to the Toltec Mounds case study, list the changes that took place between these two periods.

