

Instructions: Rocks and Pots Lab

Purpose: In this lab, we will be discussing technology with particular emphasis on stone tools and pottery. The objective of this section is to give the students a basic understanding of how stone tools and pottery are manufactured as well as to discuss the kind of information that archaeologists can extract from such materials.

I: Explanation of Stone Tool and Pottery Manufacture

A. Stone Tools

1. Explain how stone tools are made
 - a. describe the difference between a groundstone and a chipped stone tool
 - b. describe how a chipped stone tool is made
 - define core, hammerstone, flake, and debitage
 - explain what a bulb of percussion and a platform are
 - describe the difference between a unifacial and a bifacial tool
 - c. Show examples
 - core, hammerstone, drill, jasper uniface, 2 knives/bifaces, 2 scrapers
2. Discuss the various types of materials from which chipped stone tools can be made
 - show examples of argillite, quartzite, jasper, chert, and obsidian (on tray)
 - mention why archaeologists would want to know something about raw material (how raw materials were acquired – directly or through trade and exchange)
3. Show examples of various types of stone tools

B. Bone tools

1. Explain that tools were also made out of other materials such as bone
2. Show examples
 - bone awls, pins

C. Pottery

1. Briefly explain how pottery is made
 - define temper
 - show examples of different types of temper (shell, grit)
 - discuss the issue of how pottery changes over time as well as how pottery can be used to learn something about group identity
2. Show them how to measure rim diameters and discuss why archaeologists would want to measure rim diameters
 - discuss the issue of large serving vessels and other pots and the various behaviors they might indicate (elites, communal eating, or changes in food preparation). Be sure to point out that it is difficult to sort out which of these interpretations is most appropriate in a given situation unless you have multiple lines of evidence on which to rely.

II. Activity: This activity is meant to demonstrate the various ways in which artifacts such as pottery and tools can be useful in reconstructing past cultures. Be sure to emphasize the importance of using multiple lines of evidence in interpreting data.

Explain to the students that we have excavated a prehistoric mound site in eastern North America and have recovered material both from the mound and from the village. Have the students divide into 4 groups and inventory the material in the boxes. Box 1 contains materials recovered from the mound while the other three contain material from excavations of houses in the village. The site map shows the location of the excavated houses. Once the students have inventoried the boxes, have them answer the questions on the worksheet in their groups, and then discuss the answers as a class.

Pots and Rocks Worksheet

1. Inventory each of the boxes and record the information in the tables below:

Stone and Bone Artifacts:

| Artifacts | Box 1 | Box 2 | Box 3 | Box 4 |
|---------------------------|-------|-------|-------|-------|
| Jasper Points | | | | |
| Chert points | | | | |
| Other chipped stone tools | | | | |
| Groundstone tools | | | | |
| Cores/flakes | | | | |
| Bone tools | | | | |

Pottery:

| Artifact | Box 1 | Box 2 | Box 3 | Box 4 |
|--------------------------------|-------|-------|-------|-------|
| Decorated pottery | | | | |
| Plain pottery (body fragments) | | | | |
| Large pots (>20cm) | | | | |
| Small pots (<20cm) | | | | |

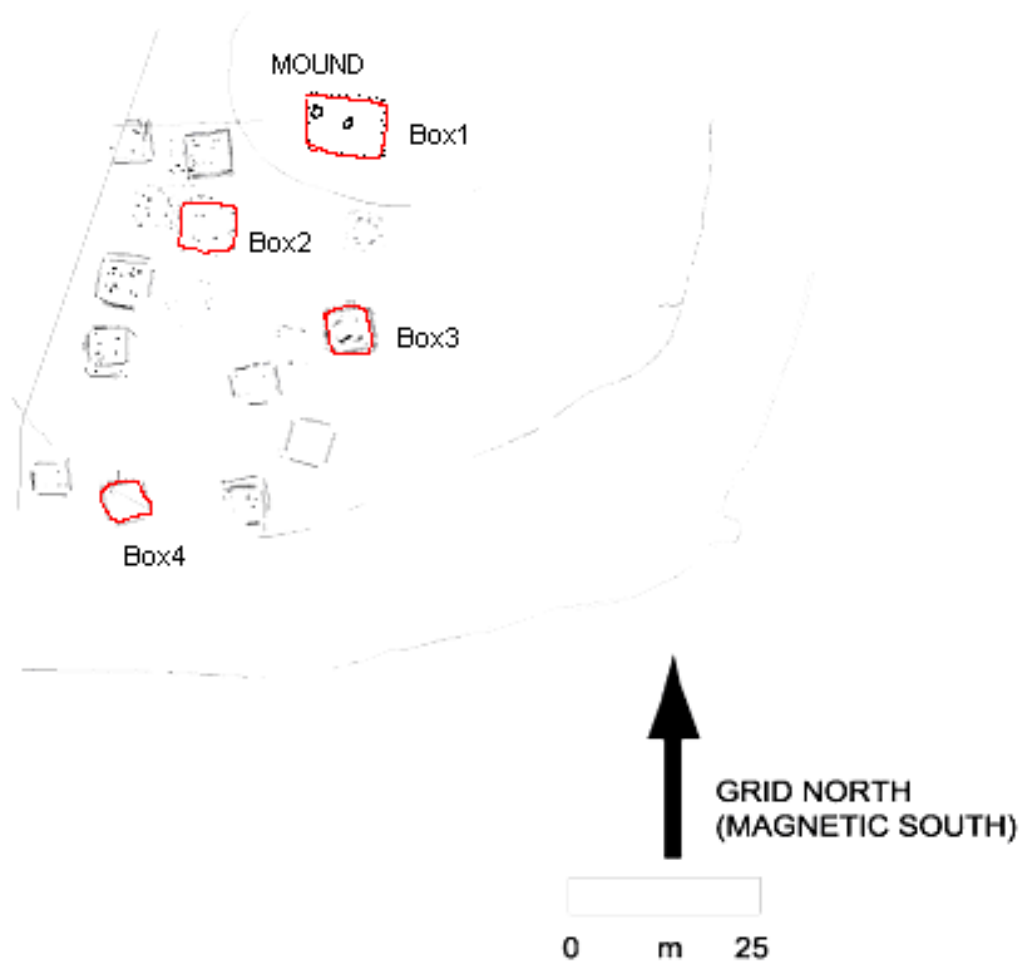
Other material:

| Artifact | Box 1 | Box 2 | Box 3 | Box 4 |
|--|-------|-------|-------|-------|
| Animal bone | | | | |
| Corn kernels (present or absent) | | | | |
| Corn cobs (present or absent) | | | | |
| Shells | | | | |
| Bear tooth pendant | | | | |

2. Answer the following questions based on the site map and the information from the tables:
 - a. Is there a difference in the distribution of the various raw materials used for making stone projectile points? What are some possible explanations that might account for what you have found?

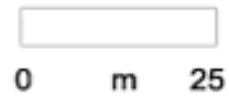
- b. Is there a difference in the distribution of other stone or bone tools at the site? What are some possible explanations that might account for what you have found?
- c. What do you notice about the distribution of pottery at the site? Why might there be a difference in pottery size on the mound and in the village?
- d. Describe the social organization of the society that used this site. Were they an organizationally simple society or was it more complex? How did you reach that conclusion? (Be sure to refer to as many lines of evidence as possible.)

Overheads/Handouts





GRID NORTH
(MAGNETIC SOUTH)



Pots and Rocks: Inventories

Stone and Bone Artifacts:

| Artifacts | Box 1 | Box 2 | Box 3 | Box 4 |
|---------------------------|-------|-------|-------|-------|
| Jasper Points | 0 | 5 | 6 | 3 |
| Chert points | 9 | 0 | 0 | 0 |
| Other chipped stone tools | 0 | 1 | 0 | 1 |
| Groundstone tools | 0 | 1 | 2 | 1 |
| Cores/flakes | 0 | 10 | 18 | 11 |
| Bone tools | 0 | 1 | 0 | 2 |

Pottery sherds:

| Artifact | Box 1 | Box 2 | Box 3 | Box 4 |
|--------------------------------|-------|-------|-------|-------|
| Decorated pottery | 7 | 0 | 0 | 0 |
| Plain pottery (body fragments) | 7 | 6 | 8 | 9 |
| Large pots (>20cm) | 5 | 0 | 0 | 0 |
| Small pots (<20cm) | 2 | 2 | 1 | 1 |

Other material:

| Artifact | Box 1 | Box 2 | Box 3 | Box 4 |
|--|---------|---------|---------|---------|
| Animal bone | 21 | 30 | 32 | 30 |
| Corn kernels (present or absent) | present | present | present | present |
| Corn cobs (present or absent) | absent | present | present | present |
| Shells | 6 | 0 | 0 | 0 |
| Bear tooth pendant | 1 | 0 | 0 | 0 |