

Resources Near & Far

Social studies, language arts

SKILLS.....Knowledge, comprehension, application, analysis, evaluation
STRATEGIES.....Reading, discussion, scientific inquiry, brainstorming, writing
DURATION.....2 class periods; optional field trip to Aztec Ruins
CLASS SIZE.....Any; students may work in pairs, then individually

OBJECTIVES

After viewing the trunk of replica artifacts students will:

1. Examine replica artifacts and discuss their materials and uses.
2. Use observation and inference to determine how Ancestral Pueblo people obtained the natural resources for their artifacts.
3. Speculate about the value of natural resources to the Ancestral Pueblo people.

MATERIALS

- Trunk of replica artifacts from Aztec Ruins, along with written information about items
- "Resources Near & Far" WORKSHEET
- "Origins of Resources" MAP

VOCABULARY

awl: animal bone sharpened at one end, used to punch holes in hides and basketry.

cordage: rope or string made from plant fibers twisted together.

juniper splints: thin layers of juniper placed above the latillas and below the dirt layer in a roof.

latilla: cottonwood or aspen pole placed above the vigas and below the juniper splints in a roof.

maul: large hammer-like stone tool used to shape rocks for building.

obsidian: shiny, dark-colored volcanic glass that chips into very sharp edges, used for making sharp tools.

projectile points: objects chipped from stone and attached to the ends of arrows and spears.

replica: a copy of an object, made to look as much like the original as possible.

sherd: a piece of broken pottery.

viga: a log of spruce, Douglas fir, ponderosa pine, or juniper used as the primary support beam for a roof.

yucca: native plant with pointed, stiff, fibrous leaves, used in many ways by Ancestral Puebloans.

BACKGROUND

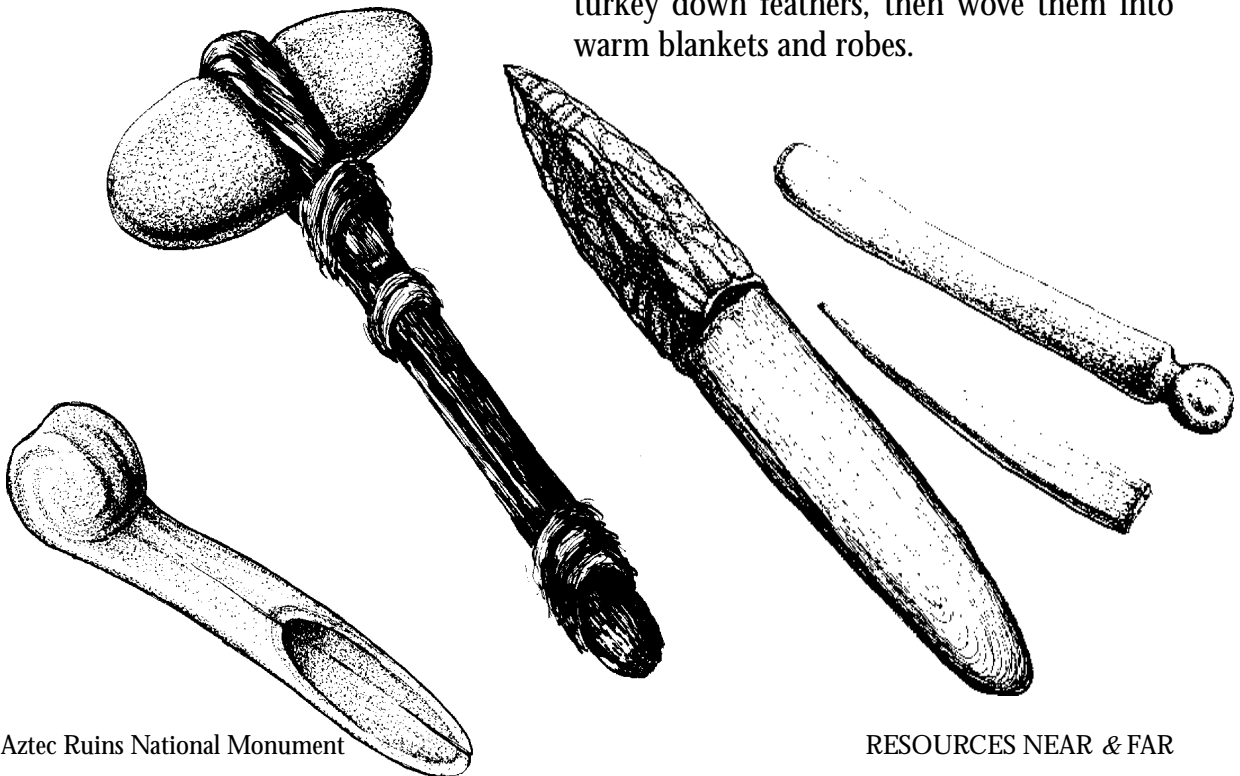
The people of Aztec Ruins used the raw materials and resources they found in their environment to make tools, process food, fabricate clothing, create art, and erect their structures. They collected some of these resources from nearby, but traveled or traded for others from more distant sources.

A variety of stones fulfilled many requirements for tools, construction materials, and jewelry. Locally-available cobbles and sandstone were converted into ground-stone tools such as hammer stones, mauls, axes, manos, and metates. The Ancestral Puebloans also used great quantities of these stones for constructing their buildings. Prehistoric mauls and hammers found at sandstone quarries some three to five miles from Aztec Ruins indicate the distance they traveled to obtain their building materials. Through travel or trade, they obtained other stones from more distant sources, such as obsidian from the Jemez Mountain area and turquoise from an area south of Santa Fe.

These were prized in making jewelry: pendants, ear ornaments, beads, bracelets, and other body ornaments. Obsidian was also chipped into projectile points and very sharp cutting tools, such as knives, scrapers, and blades.

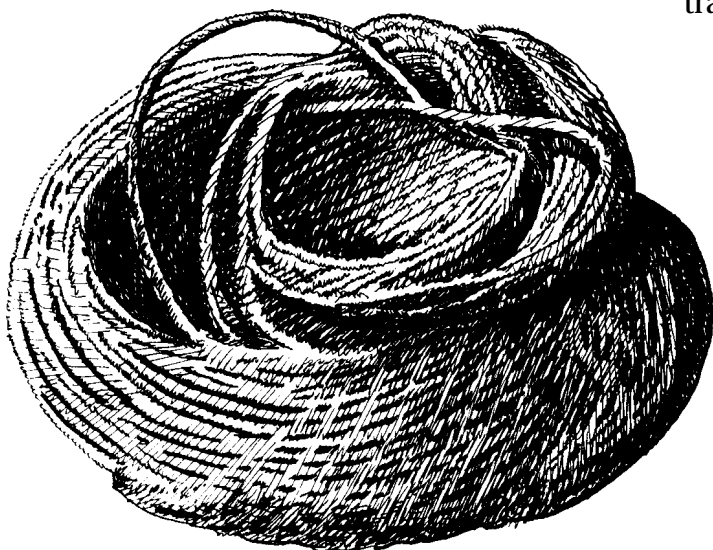
The bones of birds, turkey, rodents, deer, and bighorn sheep were fashioned into awls, scrapers, beads, whistles, and gaming pieces. The feathers and hides of these animals were used to make warm blankets, robes, and footwear. Most of these animals were found nearby.

Clay occurring naturally in certain areas was valuable in pottery making, while particular plants and minerals yielded pigments for painting them. Locally-grown wild and cultivated plants provided materials for making clothing, baskets, matting, and certain tools. They extracted the tough fibers from yucca plants to make cordage, and wove its leaves into mats, baskets, and sandals. They wrapped yucca cordage with strips of rabbit fur or attached turkey down feathers, then wove them into warm blankets and robes.



Different species of wood from local and distant sources provided firewood, roofing materials, and materials for bows, arrows, digging sticks, handles for axes, and spears. The large roof vigas were made from either fir, Douglas fir, spruce, or ponderosa pine, which all grow in higher elevations some 20 to 40 miles away. The smaller poles above the vigas, called *latillas*, were made from either cottonwood or aspen. Aspen trees also grow in higher and moister elevations, at least 40 miles to the north or west. Cottonwood trees grow nearby along the Animas River and in moist areas. Juniper trees also grow nearby, and were shaped into the short juniper splints placed above the *latillas* in the roofs.

The most distant origin of materials was most likely northern Mexico. From there, the Ancestral Pueblo people traded for the colorful feathers of the scarlet macaw – a kind of parrot that prefers the warmer climate to the south. One macaw feather was found at Aztec Ruins. Other materials and artifacts obtained afar sources include copper beads from northern Mexico (two were found at Aztec Ruins,) and shells from the Gulf of California that were used in jewelry.



While the people used and valued a broad range of materials, they may have valued resources for particular reasons. Some, such as macaw feathers and shells, required travel and trade to obtain, and thus assumed a special value. Other materials were valued for ritual use. Some resources were significant because of the items that could be made from them. For instance, obsidian, unlike most other stones, produces a very sharp edge for tools. Clay is necessary for pottery vessels – items that formed a prominent part of their everyday lives.

These people may have viewed and treated the resources in their world much as their descendants do today, honoring all things as alive, interconnected, and valued as components of the broader whole.

SETTING THE STAGE

Use the background information above and written information from the replica trunk to discuss the materials that the Ancestral Pueblo people used to survive (stone, animals, wood, plants, etc.). List these materials on the board. Discuss their sources. Show the “Origins of Resources” MAP that shows the origin of the various materials. How far did they travel or trade to obtain these materials?

EXAMPLES:

obsidian – Jemez Mountains

turquoise – south of Santa Fe

scarlet macaw feathers and **copper bells** – northern Mexico

some varieties of **wood** – 20 to 40 miles away

sandstone – quarries 3 to 5 miles away

yucca and other plants – nearby

PROCEDURE

1. Students examine the items in the trunk of replica artifacts. Discuss the uses of the items. Refer to the background information and written information with the trunk.
2. Students go on an optional field trip to Aztec Ruins, where they will complete the "Resources Near & Far" WORKSHEET. Otherwise, complete the procedures in the classroom.
3. Distribute "Resources Near & Far" WORKSHEET to each student. Working in pairs, students complete the columns for each artifact, listing its material, possible source, and inferring how it was obtained (trade, travel, collect locally, etc.). If students complete this while on a field trip to Aztec Ruins, they should obtain information from the exhibits, trail guide booklet, rangers, and observation of the site. If done in class, they can use information from the replica artifact trunk, the map, and the background information you give them.
4. Discuss answers from students' worksheets.

CLOSURE

Briefly share BACKGROUND information regarding reasons and ways the Ancestral Pueblo people might have valued various resources. Students use their research and knowledge of origin and use of materials to speculate and write a statement about which raw materials were valued most. Why? Share and discuss statements with the entire class.

EVALUATION

Evaluate student participation in discussion, completion of worksheet, and written statement on the value of resources.

EXTENSION

Students each write a two page story, putting themselves in the place of a young Aztec inhabitant. Use what they have learned about material sources to tell about searching and finding raw materials. How might you prepare for your search? Who might have taught you where and how to gather or hunt? Where did you find it? What time of year? What time of day? Describe the material and how you got it. What might happen to you during the search? Would you see any other animals? People? What did you do with the raw material after you found it? How did you prepare it? What did you finally do with it? Would you work for yourself only, or would you go with others to obtain or prepare the materials? Illustrate the story.

REFERENCES

Barnett, Franklin, *Dictionary of Prehistoric Indian Artifacts of the American Southwest*, Northland Printing Company, Flagstaff, 1991.

Lister, Robert H. and Florence C., *Aztec Ruins on the Animas Excavated, Preserved, and Interpreted*, Southwest Parks and Monuments Association, Tucson, 1987 Second Edition.

Aztec Ruins National Monument, Southwest Parks and Monuments Association, Tucson, 1992.

RESOURCES NEAR & FAR

ARTIFACT OR FEATURE	MATERIALS MADE FROM	ENVIRONMENT WHERE FOUND	HOW OBTAINED
Projectile points			
Hammers			
Awls			
Blanket			
Jewelry			
Baskets			
Cordage/rope			
Pottery			
Stone buildings			
Vigas			

ORIGINS OF RESOURCES

