Directions to the Past

Social studies, language arts, math, science

SKILLS.....Knowledge, comprehension, application, analysis, synthesis, evaluation
STRATEGIES.....Mapping, discussion, communication, compare and contrast, writing
DURATION.....2-hour field trip to Aztec Ruins
CLASS SIZE.....30 maximum in groups of 3 to 5 when using compasses; otherwise any

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OBJECTIVES

In their study of Aztec Ruins, students will use maps and/or compasses to:

1. Identify map locations and write map instructions for others.

2. Compare and evaluate effective means of communicating directions.

3. Speculate about prehistoric means of communicating directions.

MATERIALS

- "Area Map of Aztec" HANDOUT
- "West Ruin" MAP of for each student
- Compasses for older students; 5 compasses can be borrowed from Aztec Ruins

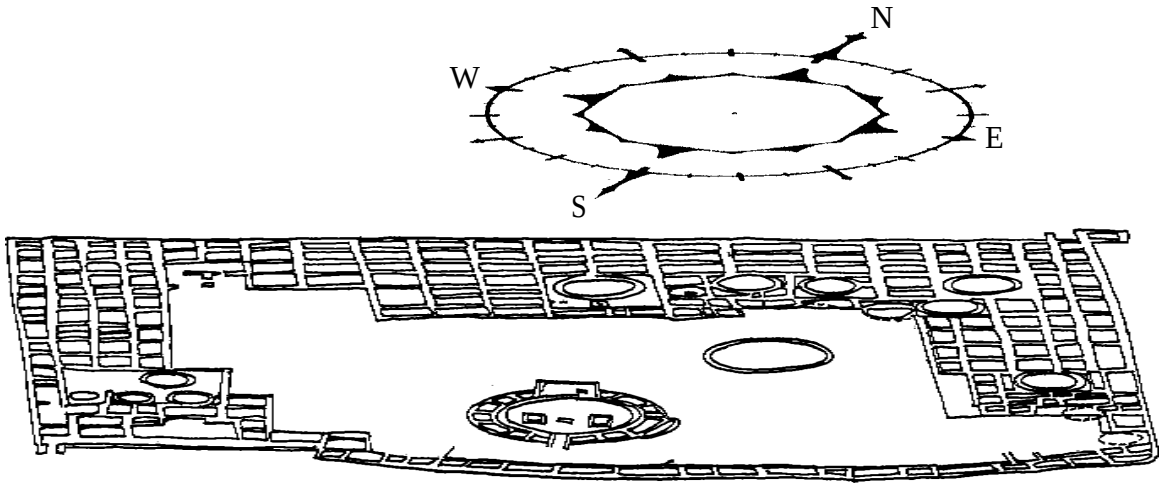
VOCABULARY

compass: an instrument for determining directions, consisting of a freely moving needle indicating magnetic north.

feature: something made by humans but not easily picked up or transported, such as a wall, firepit, concentration of artifacts, or doorway.

BACKGROUND

Ancestral Pueblo people participated in a widespread trade network extending east to the Rio Grande valley, south to Mexico, and west to the Gulf of California. Although the Aztec inhabitants most likely did not travel to those areas themselves, they did travel long distances to trade with others for materials from these distant places.



Wherever and however they traveled, they needed to communicate direction. They communicated knowledge of obstacles, the best routes, good hunting and gathering areas, water sources, rock quarries, sources for pottery clay, and locations of dwellings, shrines, and ceremonial places. Moreover, they probably communicated directions with others who did not always speak the same language. Without clear directions passed to them from others, traveling and trading for the Ancestral Puebloans would have been hazardous and limited.

Today, as in prehistoric times, we also need to communicate clear directions to others. We frequently use maps to communicate information about an area, how to locate certain places and travel to them. Archeologists use maps to locate and record information about archeological sites. It is relatively easy for us to communicate directions because we have written maps, compasses, well established and marked roads, and ways to easily measure distances.

Prehistoric inhabitants did not have compasses nor have archeologists found written "maps." However, they did use the locations of stars and the sun to establish directions, and they were familiar with location landmarks in their region, such as specific mountain peaks, tall hills, rivers, or rock formations.

In this region, Huerfano Peak south of Bloomfield can be seen for great distances. Knickerbocker Peaks northwest of Aztec are visible from Aztec Ruins and are also prominent land features in the area. Both were likely used as direction references. In prehistoric times, "shrines" of rocks were placed on each landmark, indicating their importance as ceremonial or spiritual locations or references.

Even with the help of maps, compasses, land features, and measures of distances, communicating clear directions to others can be a challenge. The person giving the directions may not be sensitive to the receiver's knowledge of the area, or may assume the receiver knows much more about an area and leave out important information. In addition, the direction giver may not recall directions properly in his/her own mind to be able to give accurate directions to someone else.

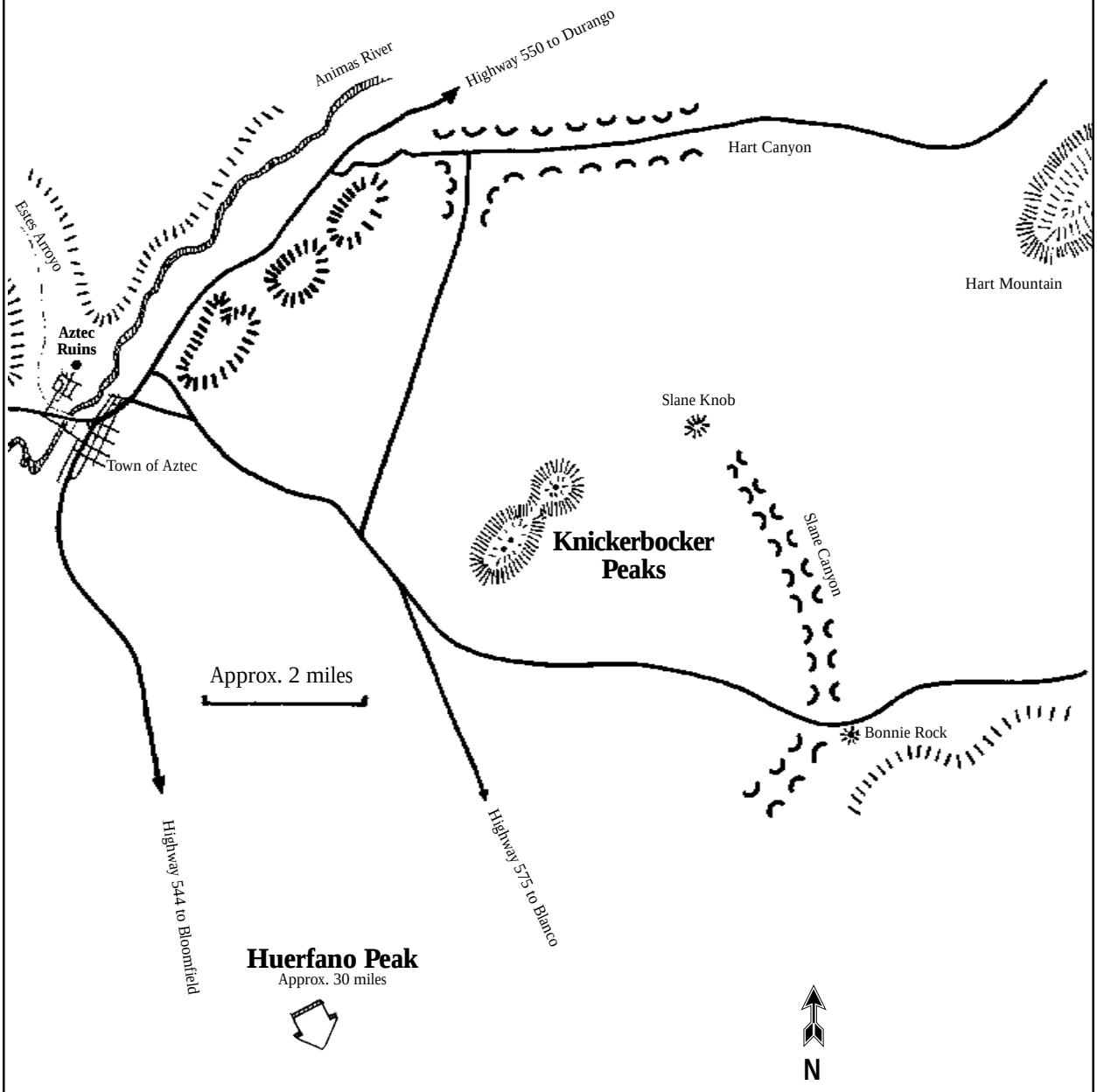
SETTING THE STAGE

1. Ask the students if they or their family have gotten lost when they followed someone else's directions. Why did they get lost? Were the directions incorrect or confusing? Did they follow the directions properly? Everyone interprets their surroundings and how to move about them differently, which sometimes leads to confusion.

2. Discuss background information about the need for Ancestral Pueblo people to give clear directions and how they accomplished this. What tools do we have today for communicating directions that prehistoric people did not have? Examples: written maps, compasses, easy methods to measure distances such as odometers on cars, units of measure such as feet and miles.

3. Using the “Area Map of Aztec” HANDOUT, have students locate Knickerbocker Peak and the direction of Huerfano Peak. Discuss their significance to earlier people. Discuss other prominent land features that might have been important to the Ancestral Pueblo people of this area. Examples: the La Plata Mountains and Animas River.

AREA MAP OF AZTEC



The radio towers located on Knickerbocker Peaks are used for communication. Ancestral Puebloans may have communicated by building signal fires on these same peaks.

PROCEDURE

1. If using compasses during the field trip, distribute to small groups of students while still at school and explain their use. Have students practice using the compass.

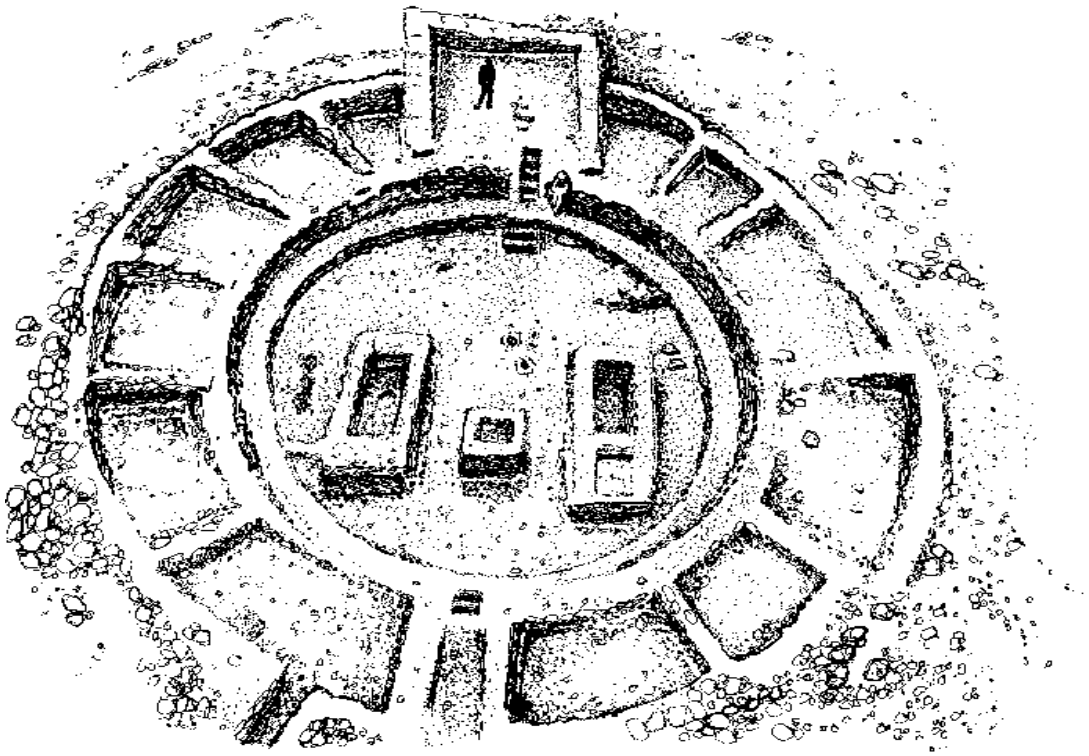
2. Take a field trip to Aztec Ruins and complete the following procedures. Distribute the "West Ruin" MAP to each student or small group.

3. Students select a particular spot or feature on the trail of the West Ruin that interests them (such as a particular doorway, niche, wall, stone, or room) and one that they would like to direct another student to find. Students mark this spot on their map.

4. Students write directions to their chosen spot by selecting a starting point (it could be the visitor center, picnic area, or parking lot) then writing directions – without relying on the numbered trail markers – to reach the selected spot. Students decide the kind of information someone else in their class needs to know in order to find their spot. Students may include directions incorporating the use of a compass. Remind students to stay on the paved trail.

5. Each student or group trades their written directions (not their maps) to their chosen spot with another student or group who then tries to locate it using the directions given. Once they have found the spot, they should mark it on their map using an appropriate symbol.

6. Students compare results on their maps.



DIRECTIONS FOR USING COMPASS

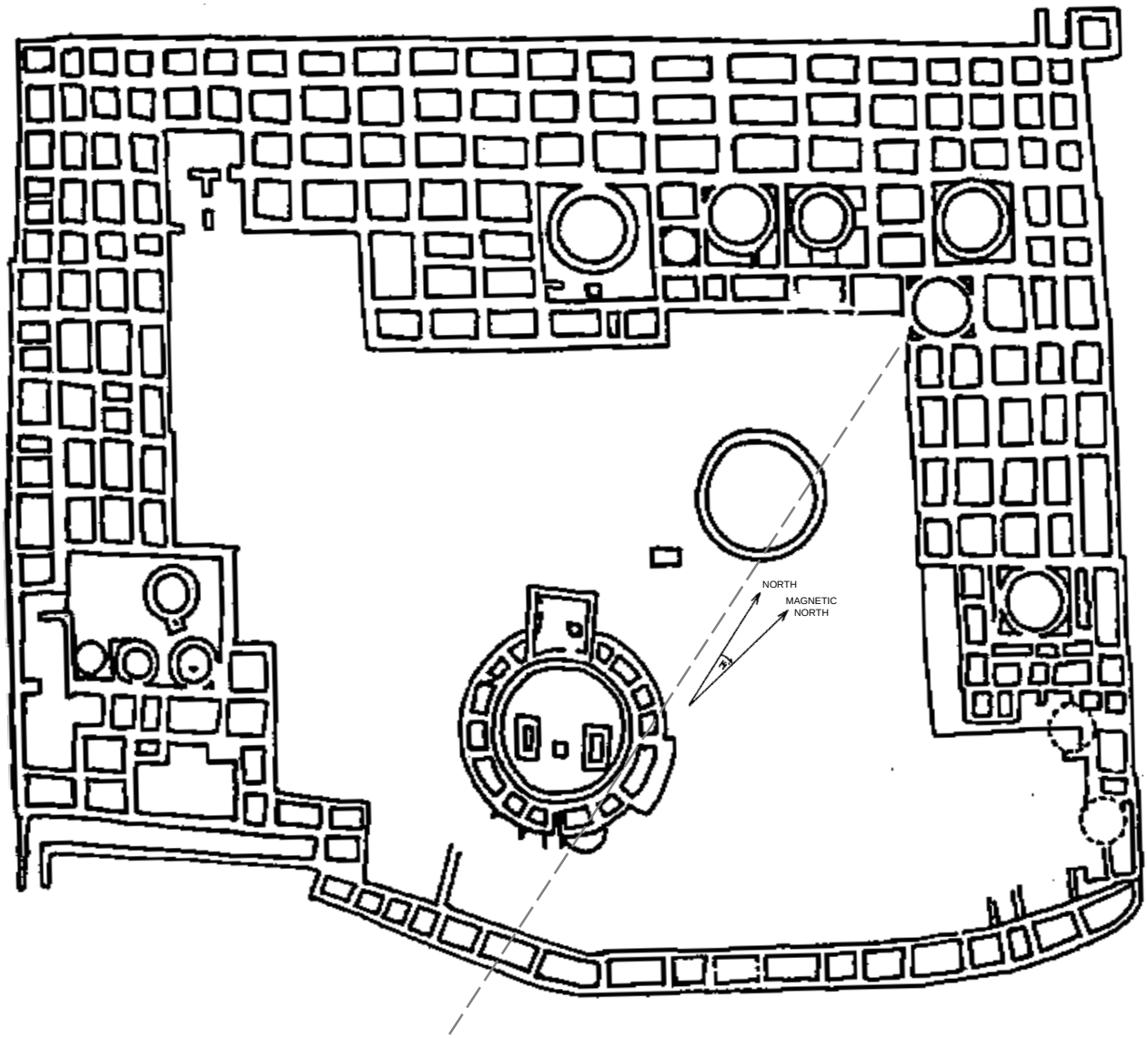
1. Hold the compass level in the palm of your hand and directly in front of you so that the magnetic needle is free to rotate.

2. Turn the entire compass until the north (red) end of the magnetic needle points to N on the azimuth (degree) scale. The compass is now aligned with north. The azimuth scale now shows the directions from north 0 to 360 degrees.

3. To determine the direction you are facing, look across the compass and read the azimuth scale on the side away from you (be sure the compass is still aligned to north.) Be aware that compass readings may be affected by the presence of metal – from a belt buckle, car, or other source.

4. This lesson is based on readings from magnetic north.

WEST RUIN – AZTEC RUINS



CLOSURE

Evaluate what it was like to write clear directions and what it was like to follow someone else's directions. Determine ways that students can make their directions clearer for others. Discuss ways that the prehistoric inhabitants could have made their directions clear to others.

EVALUATION

Evaluate students' map/compass reading skills, clarity of their writing, and participation in discussion.

EXTENSIONS

1. Each group reports to the rest of the class about the feature or spot they chose or found by following another group's directions. They can use information they learn from the trail guide, exhibits, or rangers.

2. While at Aztec Ruins, use a compass to determine north, south, east and west. Students indicate those directions on their map, then locate the direction of the sun and place its position on the map. To which direction is the West Ruin oriented? (It is oriented largely to the south.) How could this orientation benefit the people who used the building? (The sun's journey across the southern part of the sky warms more walls of the pueblo during the day, which release their heat into interior rooms at night. Its orientation may also reflect spiritual beliefs.)

3. Each student brings a different kind of map to class. Compare and contrast the different information revealed by each.

4. Have the students write a short story from the point of view of an Ancestral Puebloan boy or girl who is part of a group settling near the site which is now Aztec Ruins. Students address these questions:

   Why did your group decide to leave your former home?

   What directions were given to help you find your way from your old home to this place?

   How easy was it to follow those directions?

   Why did your group choose this location?

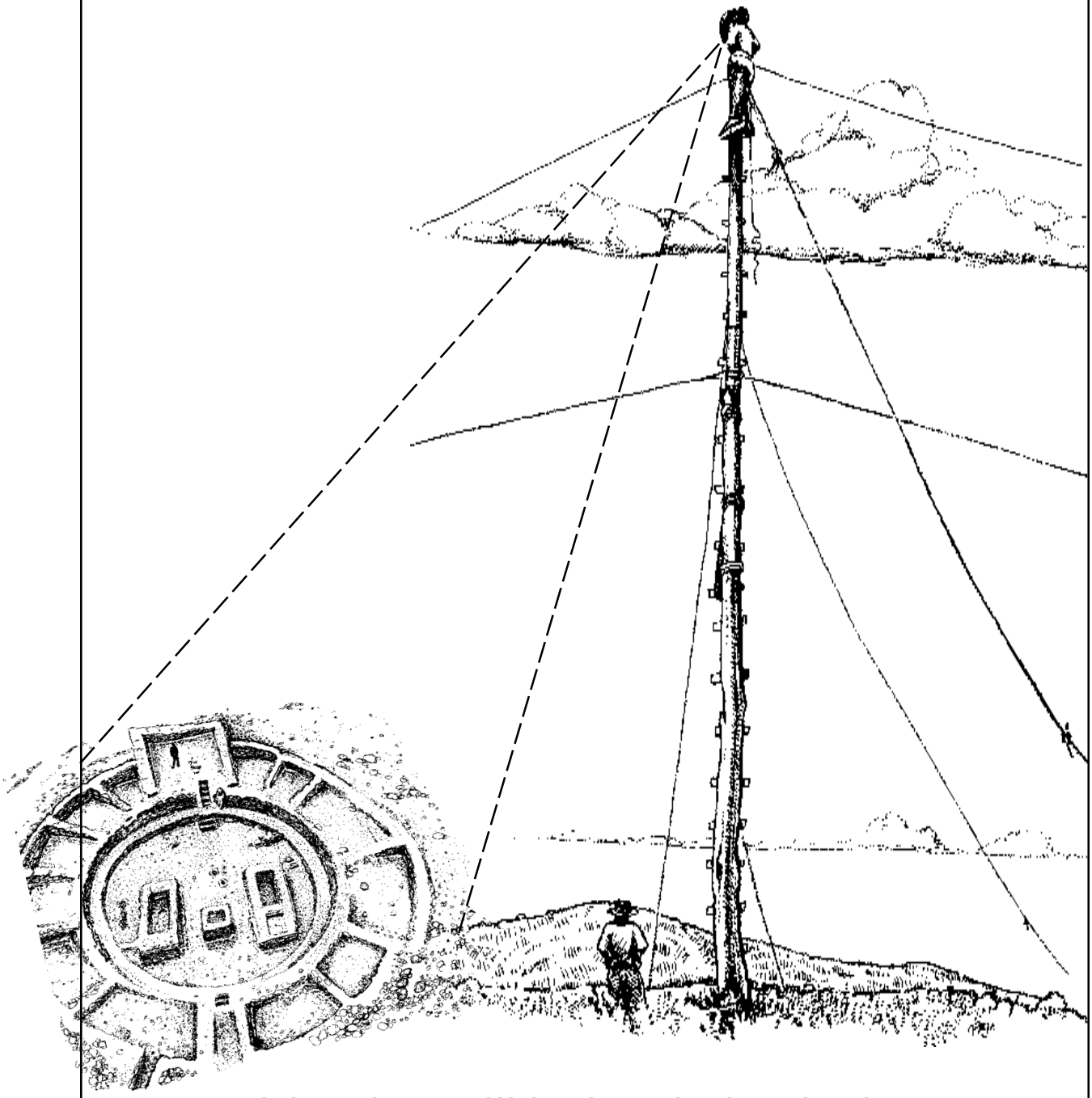
   Illustrate the stories and display at school or ask Aztec Ruins to display.

REFERENCES

A Trailguide to Aztec Ruins, Southwest Parks and Monuments Association, Tucson, 1994.

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

HOW'D THEY DO THAT?



Pioneer archeologist Earl Morris would lash together two telegraph-size poles, nail on cross pieces, pull them to a standing position with ropes, and go get the shot!