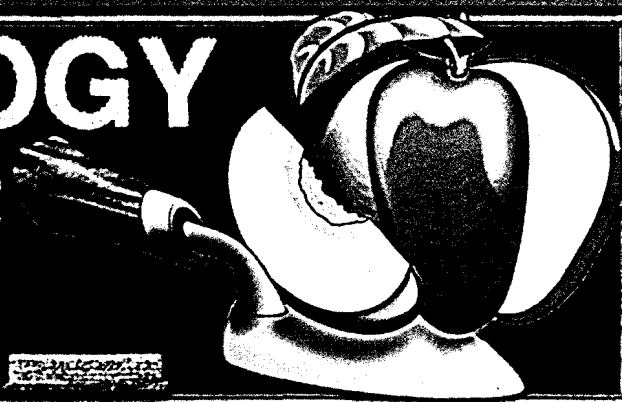


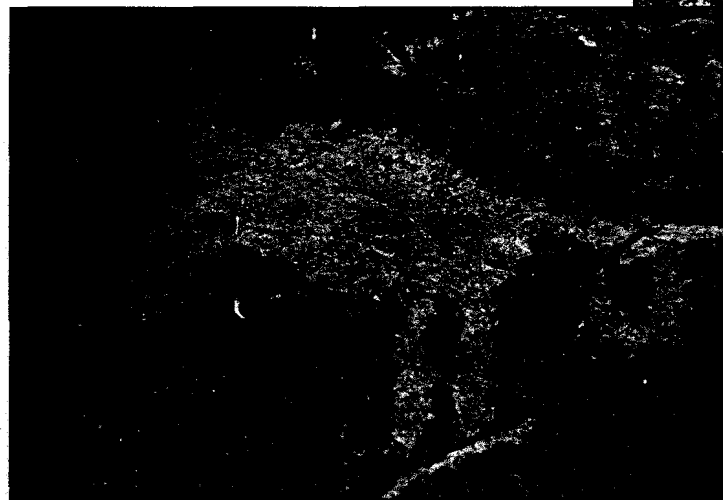
ARCHAEOLOGY AND PUBLIC EDUCATION



Society for American Archaeology, Public Education Committee

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Images On Stone



Understanding Rock Art



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The Public Education Committee exists to promote awareness about and concern for the study of past cultures, and to engage people in the preservation and protection of heritage resources. Our publication aims to aid educators, interpreters, archaeologists, and others who teach the public about the value of archaeological research and resources.

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Cracking The Secret Code: Deciphering Rock Art

*We felt we were looking directly into the minds of these ancient people . . .
What was the message that the ancients had so carefully placed
on the rocks long ago?*

This question, posed by Alex Patterson in 1992, nags anyone who encounters rock art. Our need to know and to understand is hard-wired into our brains. It is part of being human. Yet we must resist the urge to conjure up meaning that is not linked with fact.

For thousands of years, cultures around the world have used canyon walls, rockshelters, outcrops, and boulders to draw or peck images on stone. In the United States, most of these images are found on rock formations from the Rocky Mountains to the Pacific Coast. They were made by many of the native peoples who have occupied this vast region, from the earliest hunter-gatherers thousands of years ago to present-day Native Americans.

Images depicted on stone are known most commonly as "rock art." This label may be a convenient convention, but it is misleading. The word "art" implies a specific purpose and imposes a value judgment on these depictions. In reality, no one knows for sure why ancient peoples created these images or whether they viewed their creations as art. I prefer the more neutral term coined in 1980 by Polly Schaafsma: "images on stone."

Why did ancient Native Americans create images on stone? The answer to this question remains a mystery for two reasons. First, the creators of these images no longer are around to explain their purpose. Second, it is very difficult to decode their meaning because images on stone are visual symbols. The American Heritage Dictionary (1985:1230) defines a symbol as "something that represents something else by association, resemblance or convention, esp. a material object used to represent something invisible." Any image can be made to symbolize just about anything, as long as the people using the symbol understand its meaning. Since we are not participants in the cultures that created the images, we do not possess the knowledge to understand their meaning.

Some contemporary Native American peoples trace their ancestry to prehistoric cultures that created images on stone. They often maintain a rich oral tradition about the images, their origins, and meanings that can be a valuable source of information. However, the possibility always exists that the meanings have changed over the centuries. In addition, it is not unusual to find different individuals within the same culture who have different interpretations of the images created by their ancestors.

Many theories have been proposed to explain the purpose of images on stone. Are they a visual form of sign language? Are they a form of writing? Do they serve as historical accounts? Are they works of art or doodlings made to occupy idle time? Are they powerful images associated with supernatural forces? It is likely that images on stone had different purposes across time and space. Perhaps a little truth exists in all these theories.

Although their meanings remain a mystery, images on stone can provide a wealth of information about the people who created them. For ex-

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On the cover: Archaeologists from Loendorf and Associates record petroglyphs such as the quadruped, or animal form, petroglyph at Hayden Butte in Tempe, Ariz. Photos courtesy of the Tempe Historical Museum. Conservator Claire Dean stabilizes and reconstructs a damaged petroglyph boulder. Photo courtesy of Claire Dean; used with permission of the Bureau of Land Management.

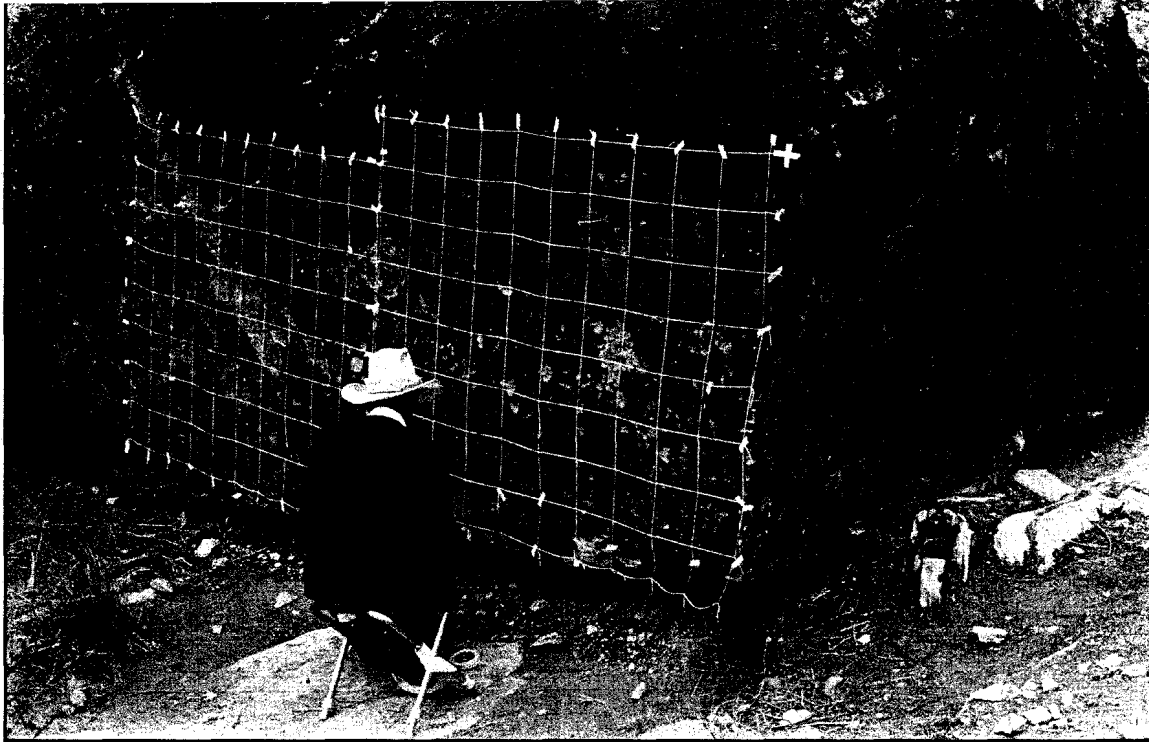


Photo by Frank Bock, Bock Rock Art Documentation, Unlimited

American Rock Art Research Association

25 Years Of Stewardship

William D. Hyder

Although archaeologists have flirted with rock art research for the past 100 years, the archaeological profession in North America has been slow to accept rock art studies as a respectable subfield. However, rock art studies have continued to evolve thanks to the work of a few dedicated professionals, avocationalists, amateurs, and the American Rock Art Research Association (ARARA). The association grew out of a rock art symposium sponsored in 1974 by the San Juan County Museum Association in Farmington, N.Mex., and ARARA was formally established the next year at the second annual rock art symposium in El Paso.

ARARA was founded to promote rock art research, conservation, and education. Research is promoted through an annual conference; a yearly publication, *American Indian Rock Art*; two other publications, *Occasional Papers* and *Monographs*; the annual Castleton Award for exemplary research papers; and the annual Oliver Award for rock art photography.

Conservation efforts have included sponsoring workshops through the Getty Conservation Institute, hosting conservation workshops at SAA annual meetings, holding conservation symposia at ARARA's annual meetings, and funding conservation work when other support was unavailable. ARARA's conservation committee keeps a diligent watch on events that threaten rock art sites around the country. ARARA volunteers also assist rock art recording activities, field schools, and other projects. The organization has received federal recognition for its volunteer recording projects in the Petrified Forest and the Arizona Strip.

Research and conservation are popular, high-profile activities that draw a lot of interest and labor. But the future of rock art studies, and rock art itself, is dependent on educa-

tion. ARARA's education committee has promoted rock art and public education for years. The committee focuses its efforts in two areas, primary education and public education.

A collection of lesson plans for primary teachers is available at cost from the committee (see Worth Noting, p. 15). The packet also includes reviews of audiovisual materials, a guide to visiting a site with a class, pre-visit activities, and other materials that change with members' interests and experiences. The education committee also sponsors booths at events that likely will draw those interested in archaeology. In addition to distributing literature about rock art, site protection, and local archaeological laws and regulations, the booths feature activities designed to capture the interest of children and adults.

One favorite activity, albeit a little messy, is making hand prints. Participants dip their hand in water-soluble poster paint, press their hand onto a clean sheet of paper, and then clean up in a fresh bucket of water. Later, they can stop back and pick up their dry hand print as a souvenir. A less messy activity is covering a table with butcher paper and inviting children to create their own drawings based on photographs in the booth. This activity also captures the kids' interest, but they do not have a memento to take home. In either case, the goal is to encourage children to think about rock art and its relation to people like themselves, and build some respect for the marks left on the rocks by those who came before.

In 1998, ARARA will host its 25th annual meeting in Ridgecrest, Calif., and its second international conference in Ripon, Wisc., to celebrate its 25th anniversary.

William D. Hyder is president of the American Rock Art Research Association and director of Systems and Operations, Social Sciences Division, University of California, Santa Cruz, CA 95064; (408) 459-2658.

Caring For Rock Art

CONSERVATION AND PRESERVATION

J. Claire Dean

Window shopping in any favored location of the Southwest will reveal the popularity of rock art as a decorative motif. Indeed, it could be argued that the "flute player" now may have surpassed the ubiquitous "howling coyote" motif in popularity. Unfortunately, public familiarity with rock art images, combined with the ever-increasing demands on public lands for recreational use, have been accompanied by an increase in reported damage to rock art sites, including deliberate vandalism and theft.

Forces Of Destruction

Deterioration at rock art sites can be divided into two categories: natural causes and human actions. Natural deterioration is caused by wind, dust, and rain erosion, plant overgrowth, and animal activity. Many of these forces formed the sites originally; natural erosion commonly creates rockshelters and shallow caves, favored locations for many rock art sites. The ongoing erosion of these sites can cause rock art to decay. But can we truly call this deterioration? Some Native American communities may see these natural forces as necessary parts of the life of a site.

Trying to lessen the impact of natural forces of deterioration is an uphill struggle. We can sometimes slow down the rate of decay, but attempting to stop it rarely is successful and can trigger or exacerbate other problems. In light of what we know about the traditional use of sites and the concerns of Native Americans, we also have to ask if we should be trying to interfere at all.

Most commonly, rock art sites are damaged by human-made deterioration, both deliberate and unintentional. The spray paint, magic marker, scratched graffiti, and theft we so quickly associate with urban living all too often find their way to rock art sites. Gunshot damage also is a common feature (presumably the result of using the images for target practice). This kind of deliberate, premeditated activity on the part of a few visitors spoils the sites for all of us, including future generations.

Unintentional damage to sites also is widespread. People like to touch rock art. Its appeal is more than purely visual, and touching it can provide a physical connection with the ancient past. Over time, the buildup of natural oils from skin, as well as sunscreen and food residues, can produce staining and darkening of images. Touching also can accelerate the natural erosion of the images.

Many techniques aimed at documenting images have produced widespread damage to rock art. Such methods as taking rubbings, plaster casts, latex peels, or wet paper impressions of petroglyphs have led to staining, surface erosion, and actual loss of images. In addition to the visual damage, the application of certain materials compromises the use



Conservators field test possible methods for removing spray-painted graffiti. Photo courtesy of Claire Dean; used with permission of the Bureau of Land Management.

of newly developed dating techniques. Highlighting rock art to allow for "better" photographs has been a common practice in the past. Outlining petroglyphs and pictographs with chalk, crayon, charcoal, and paint; throwing water or other liquids on pictographs to enhance their colors; and lighting fires immediately below panels to provide atmospheric light also have taken their toll on sites.

Many of these materials have been left in place after use in the mistaken belief that the weather will remove them quickly. In the desert Southwest, with sparse rainfall, chalk not only stays where it was put, but it actually mineralizes to become hard and virtually impossible to remove safely. Likewise, aged paints and crayons become insoluble, leaving an almost permanent record of the well-intentioned documentation effort. All of these methods are now considered inappropriate techniques for recording rock images. Indeed, under the terms of much of the legislation that protects these resources on public lands, the use of these methods and materials without permission of the managing agency can be prosecuted as acts of vandalism.

It is also important to keep in mind that these activities, intentional or otherwise, show a total lack of understanding and respect for the cultures that created the images and for the significance of the sites as spiritual and religious places.

Conservation Efforts

What can we do to conserve and protect these sites? Professional conservators work to stabilize artifacts (whether they are objects in a museum or archaeological sites) to slow

deterioration and prolong their existence. Often, we can repair damage already incurred. In the case of rock art sites this may mean, for example, trying to remove or repair vandalism, working with land managers to improve the way in which people visit sites, drawing up an etiquette guide for visitors to rock art sites, or providing interpretation.

Conservators work with several principles in mind. We try to use the least intrusive methods available, carry out the minimum amount of treatment needed to attain the desired results, recognize that in certain circumstances little can be done and that no treatment is an acceptable choice of action, and try to ensure that everything done to a site can be reversed if necessary.

Each site poses its own particular problems and challenges. Rock art images tend to be large, immobile, exposed, and sometimes remote. These images cannot be moved indoors for convenient, comfortable treatment. Instead, the treatment must be designed so that it can be applied on site, often in areas where access by vehicles is either impossible or restricted—meaning that all equipment and supplies must be carried to the site. Electricity and running water may only be available via the use of a portable generator and by packing in containers of water. Issues of health and safety, and the environmental suitability of treatments raise a large number of problems. Sites do not come equipped with standard laboratory safety equipment, controllable ventilation, hazardous waste disposal containers, or a convenient hospital.

Rock art sites are alive both literally and spiritually. They consist not only of the images themselves, but also the very landscape in which they are situated. This underlines the importance of consultation and the involvement of native peoples whenever dealing with rock art, especially its conservation. All of the actions we propose to undertake must be considered under consultation with the appropriate Native American communities to make sure that our treatments are culturally acceptable and appropriate.

What about the visitor to rock art sites? We all need to learn to look with our eyes, not our hands, and to stay on the trails. Vandalism to sites should be reported promptly to the relevant land management agency. Educating ourselves and others about the significance of rock art will help us to understand and respect these remarkable and often fragile examples of cultural heritage. Learning to respect the sites as sacred landscapes as well as places of history and examples of human expression hopefully will lead to behavior that will prolong the life of rock art sites.

Claire Dean is an archaeological conservator who specializes in problems associated with the conservation of rock art. She can be reached at Dean and Associates Conservation Services, 3438 N.E. 62nd Ave., Portland, OR 97213; (503) 331-1972.



*Gunshot damage to petroglyphs in New Mexico.
Photo courtesy of Claire Dean.*

MIND YOUR TERMS AND YOUR MANNERS

Pictographs, or rock paintings, are found on light-colored surfaces in rockshelters, overhangs, or other places sheltered from the elements. Mineral pigments such as hematite and gypsum were ground and mixed with water to make the paint. A binder such as egg white, vegetable oil, or blood was added to make it adhere to the surface of the rock. The paint probably was applied with a pointed stick, the frayed ends of a leaf, bundles of fibers, or the painter's fingers.

Petroglyphs were made by removing the dark, weathered layer of rock (such as basalt or granite) and exposing the lighter colored rock underneath. This was accomplished by pecking, incising, scratching, or rubbing away the dark surface. A pointed stone tool probably was used to make petroglyphs.

Every year, more of these images on stone disappear from the landscape due to deliberate vandalism, theft, and carelessness. Little can be done to stop natural forces that slowly wear them away; however, the human agents of destruction are preventable.

Thousands of images on stone can be found in parks and on public lands. You have the opportunity to see them and to ponder their meaning without causing them harm. By following a few simple guidelines, you can ensure that they remain unharmed for many future generations to enjoy.

- Make sure that you are welcome. Never enter private property without the landowner's permission.
- Treat images on stone with the same respect that you would give to a valuable museum artifact or a sacred object.
- Do not touch the images or walk on the rocks. Do not move the rocks or disturb the site in any way.
- Contemplate the images on stone and enjoy the surroundings.

The sunrise I'm going with.
The sunrise I'm following.
With zigzag lines I'm painted.
Following the sun,
With zigzag lines I'm painted.

Song of I'Toi, the Elder Brother
The Hohokam Chronicles (Bahr et al. 1994:197)

"Pipette" petroglyph on Hayden Butte, Tempe,
as it may have appeared prehistorically.
The double crenulation patterns are thought
to represent "entoptic phenomena."



With Zigzag Lines I'm Painted

Shamanism And Rock Art

Larry Loendorf and Amy Douglass

The prevailing belief among rock art researchers is that significant numbers of rock art sites in western North America are the products of shamans. While this idea is not new, only recently have researchers intensively reviewed ethnographic studies to support the link between sites and shamans. This approach involves combining direct references to practices of shamans in a local group with general knowledge of shamanism and trance states on a worldwide scale.

Southwestern Ethnographic Examples

Rock art often is explained by modern Native Americans as the product of the "ancient ones." At the turn of the century, the Pima of south-central Arizona attributed a rock art site in the eastern Santan Hills to "those who came before them." They revered the site and made offerings at a large cairn of rocks near the petroglyphs (Russell 1908). In other examples, the relationship between the "ancient ones" and the rock art is attributed to former spirits rather than to people. For example, the Apache believe that many petroglyphs are the products of the *Gans*, or mountain spir-

its, that live inside the rock and enter their homes through caves or small holes.

The Yavapai of north-central Arizona have spirits called *Kakaka* that are similar to the Apache *Gans*. The *Kakaka* live in mountains and rocks and are capable of supernatural feats such as passing through a tiny hole into what would seem to be solid rock. Although there are no published accounts of the *Kakaka* making petroglyphs, images at several sites in the region depict a typical *Kakaka*.

Throughout Arizona, the ethnographic literature relates an association between rock art and the work of shamans. Smithson and Euler (1994:12) state that the Havasupai of the Grand Canyon area were afraid of pictographs because they believed that these images were painted on cliff walls by shamans to harm someone. Many sites are described as having been made in a shaman's dream; that is, the rock art resulted from a vision or a trance associated with an altered state of consciousness sought by the shaman.

An association of rock art with spirit helpers such as *Gans* or *Kakaka* is a recurring theme among Native American groups in the Southwest. However, there is an identification of spiritual helpers with humans. Rock art said to be made by supernatural beings could be oblique references to shamans, the human counterpart of the spiritual beings. Laird (1976:103) notes that when the Chemehuevi (Southern Paiute) were questioned about rock art, they often replied that it was "made by the spirit helpers." Since a shaman and his helper were one and the same, their answers equally may be translated as "made by the shamans" (Whitley 1992).

Shamanism

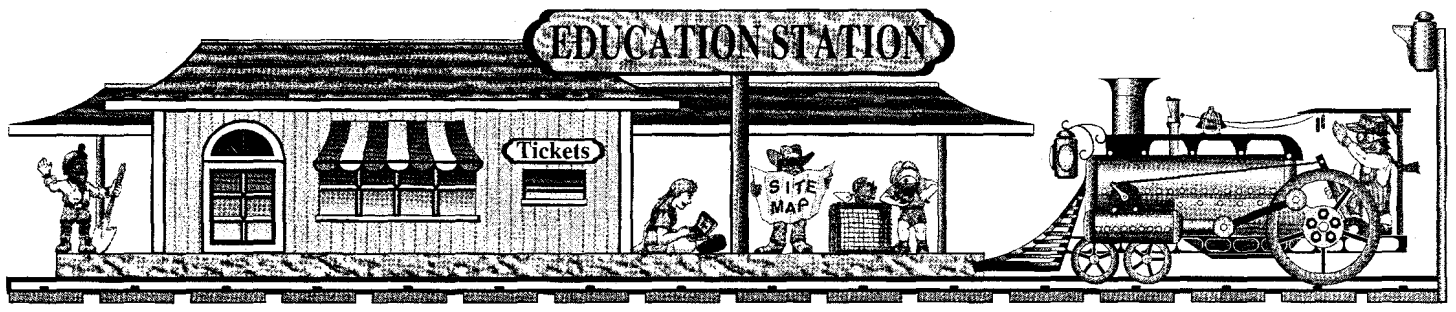
The study of shamanism currently is popular in North America among groups that range from anthropologists and psychoanalysts to proponents of New Age religion (Walsh

Continued on page 12

Terms

ethnography — the description of contemporary cultures; a subdiscipline of cultural anthropology.

shaman — a religious practitioner who serves others by seeking guidance from the supernatural through trance states.



The Education Station is designed as a pull-out section of resources and information for archaeology educators

ROCK ART FROM A KIDS' PERSPECTIVE

Susan Yannitelli

Each year my students at Liberty Elementary School in Scottsdale, Ariz., host a Hohokam Museum for their parents and other students at the school, highlighting prehistoric inhabitants of southern and central Arizona. Student groups create exhibits on various aspects of the Hohokam culture, such as pithouses, petroglyphs and pictographs, pottery, clay figurines, weaving, canals, and lifestyles. The event is both child-centered and child-created. Students who have written the following comments are in a first- to third-grade, multi-age class, and they are with me for three years.



Students at Liberty Elementary School in Scottsdale, Ariz., make clay figurines with feathers as part of their Hohokam museum project. Photo courtesy of Susan Yannitelli.

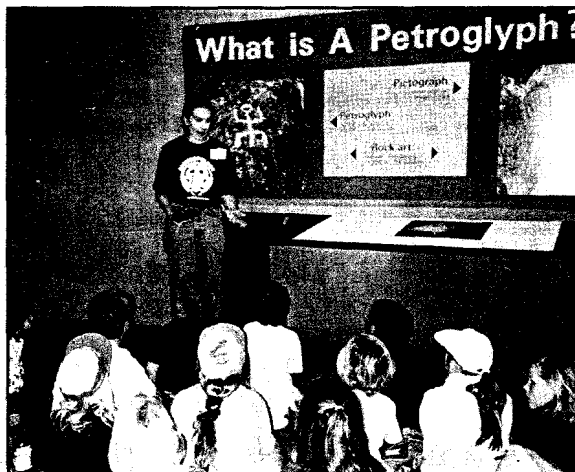
“ . . . they looked like real boulders”

We studied the Hohokam Indians in Mrs. Yannitelli's class. We read books, wrote reports, painted the canals and a Hohokam village on a huge piece of wood, went on field trips to The Pueblo Grande Museum where we dug for artifacts, and went to Casa Grande for the Archaeology Expo. We learned a lot about these Native American Indians.

Mrs. Yannitelli taught us about petroglyphs and pictographs. A petroglyph is a carving in a rock and a pictograph is a painting on a rock. The Indians made these to tell information. They also used this method to mark the time of year. We crumpled brown paper to look like rocks, and made designs with chalk to tell a story. We hung these on a wall and they looked like real boulders.

Mrs. Yannitelli does fun stuff. The most fun thing we did was have a Hohokam museum. We had it in our classroom. Lots of people came to it. We had different centers and did lots of neat things. We made petroglyph bag rattles, Hohokam shell jewelry, and clay figures with feathers. We made canals with clay on meat trays, and Indian Fry Bread. We had real artifacts in the class and a matata [metate, or grinding stone] to grind corn. Our museum was a big success. Everyone participated and got to make things. Everyone had a good time.

*Andrew Forchimes
3rd Grade*



School groups learn about rock art resources and preservation during a visit to the Deer Valley Rock Art Center in Phoenix (see p. 10). Photo courtesy of the center.

“They used powder minerals . . .”

Petroglyphs are carvings and pictographs are paintings. Indians used petroglyphs and pictographs to communicate with each other. They used powder minerals, charcol [sic], plant substance or blood to make pictographs. Indians used sharp rocks to make petroglyphs. They carved butterflies, birds, kokopellies [hump-backed flute players], coyotes, rabbits and lots of other things. In class we had a museum and explained to the parents all about the Hohokam and petroglyphs and pictographs. I had a fun time studying petroglyphs and pictographs.

*Lisa Ardizzone
2nd grade*

AN INTRODUCTION TO Rock Art

Overview

Students use various media to study, interpret, and evaluate the nature and significance of rock art.

Objectives

Students will

- Differentiate among symbol, petroglyph, pictograph, and rock art
- Understand the importance of rock art in the heritage of a people and as a tool for learning about the past
- Evaluate the importance of protecting rock art for study

Subject/Skills

- science, social studies, language arts, art
- knowledge, comprehension, analysis, evaluation

Grade Level

Grades 4–7

Materials

- one copy per student of the “Clear Creek Canyon Rock Art Panel”
- copy of “Interpretation of Clear Creek Canyon Rock Art Panel”
- art supplies: clay or plaster of paris slabs (prepared in advance), paper, paint or marker, paper clip

Time Required

Allow 60 minutes to prepare for this activity and 45–60 minutes to conduct it.

Vocabulary

- petroglyph* — a design chiseled or chipped out of a rock surface
- pictograph* — a design painted on a rock surface
- rock art* — a general term for the

pecking, incising, or painting of designs onto rock surfaces

rock art panel — a group of pictograph and/or petroglyph figures

symbol — a thing that represents something else

Background

Indian people throughout North America created rock art in prehistoric times. Its meaning is mysterious and at times controversial. Some people think that rock art is a type of storytelling. Others believe that it depicts religious or spiritual beliefs, while still others regard it solely as an artistic expression.

North American rock art is not a true writing system that can be “read” or a phonetic alphabet, although some rock art specialists attempt to decode rock art symbols. Archaeologists analyze the figures and patterns and frequently find that different cultural groups made different styles of rock art. Other rock art researchers analyze stories and information from Indian people to draw conclusions about rock art.

Some Indian tribes have oral traditions about rock art and its meaning. Many believe that the spirit of the makers resides in what he or she has created; therefore, rock art is living and has a spirit. Whatever our responses or interpretations about rock art, it stimulates our thoughts, imaginations, and awareness of cultural expressions. Rock art can mean something different to each person who ponders it.

Preparation

1. Prepare the transparency or the photocopies of the “Clear Creek Canyon Rock Art Panel.”

2. Prepare the art supplies.

Procedure

1. **Brainstorm with students about symbols that are meaningful today.**

2. Distribute art supplies to each student. Instruct students to flatten the clay into a slab. Tell them to imagine that they are living 1,000 years ago, and that the clay or plaster of paris slabs and the paper are rock walls. Ask them to carve a symbol of their culture into the clay or plaster with the paper clip, and to draw or paint the same symbol on the paper.

3. Introduce the words *pictograph* and *petroglyph* and ask students to decide which word fits which method of design. Explain that both methods are classified as rock art. Discuss definitions of the root words: *picto*, to paint (Latin); *graph*, to write (Greek); *petro*, rock (Latin); *glyph*, carved word (Greek).

4. Project the transparency or distribute copies of the “Clear Creek Canyon Rock Art Panel.” Explain that this rock art panel was created by prehistoric people of Utah. Use the following questions to analyze the rock art panel:

- What words could be used to describe the symbols on this panel?
- Why do you think people created these designs?
- If there is a message in these designs, what do you think it is?
- What might the message be in the symbol labeled with a, b, and c? Using the “Interpretation” sheet, share the four interpretations of this symbol.
- How might rock art be important to the study of ancient people?
- How might vandalism to rock art create problems for an archaeologist? For the descendants of the prehistoric rock artists? For all of us?

5. To summarize the lesson, ask students to discuss why the preservation of rock art is important.

Assessment

Instead of answering the last question as a group, require students to answer it individually in a story, poem, essay, advertisement, or song.

This lesson plan was adapted from *Intrigue of the Past: A Teacher's Activity Guide for Fourth through Seventh Grades* by Shelley J. Smith, Jeanne M. Moe, Kelly A. Letts, and Danielle M. Paterson. Reprinted 1996, Anasazi Heritage Center, Bureau of Land

Management, Dolores, Colo. This lesson is part of Project Archaeology, BLM's National Heritage Education Program. For information, contact Cindy Ramsay, Anasazi Heritage Center, P.O. Box 758, Dolores, CO 81323; (970) 882-4811.



Clear Creek Canyon Rock Art Panel

Interpretation of Figure in Clear Creek Canyon Rock Art Panel

Levan Martineau

Hired by the Paiute tribe of Utah to interpret Clear Creek Canyon rock art, Martineau thinks that this is part of a larger story of the emergence from the underworld.

- a. The clan sign of the Badger clan. Badger was involved in and recorded the emergence story.
- b. The river reed that the people of the underworld crawled through to get to this world.
- c. A god-like figure who is part of the emergence story.

Indian Joe (Joseph J. Pickyavit)

A Ute Indian, Pickyavit thinks that this figure was left by the "Pueblo Indians" whom he said once lived in Clear Creek Canyon. He feels this figure deals with making rain.

- a. Rain cloud making rain.
- b. Lightning bolt making lightning with the rain storm.
- c. Medicine man with good powers in a rain sing (ceremony to bring rain).

Wil Numkena

A Hopi Indian and the director of the Utah Division of

Indian Affairs, Numkena thinks that this figure deals with the emergence into the fourth world.

- a. Seed sack that contains the seeds used by the chipmunk to grow a plant for the people which they used to climb out of the underworld.
- b. The spruce or pine tree they climbed to get out of the third or underworld.
- c. A two-horned priest of the higher order of the priesthood and keeper of the oral traditions and the stories of the fourth world.

Kenneth Smith

A Navajo Indian who worked at Fremont Indian State Park, Smith thinks the figure was part of a fertility ceremony.

- a. This was the sack of seeds widely planted.
- b. This was a stock of corn; corn was the most important food source for the people.
- c. This was some type of god of fertility or germination who helps the crops and plants to germinate and grow.

This material was provided through the courtesy of Gordon Topham, Fremont Indian State Park, Clear Creek Canyon, Utah.

RESOURCES FOR TEACHERS

Compiled by Ann Kalb and Amy Douglass

Children's Books

Dewey, Jennifer Owings. *Stories on Stone: Rock Art Images from the Ancient Ones.* (Boston: Little Brown and Co., 1996).

In a personalized look at southwestern rock art, Dewey relates her childhood fascination with these images, intertwining her own drawings and speculation about their meanings with information about the prehistoric peoples who created them. She discusses the dilemma of trying to understand the images of another culture. *Grades 1-4*

La Pierre, Yvette. *Native American Rock Art: Messages from the Past.* Illustrated by Lois Sloan (Charlottesville: Thomasson-Grant and Lickle, 1994).

This book guides readers on a journey into the world of the people who made picture symbols. It discusses how archaeologists date rock art and how these irreplaceable images are being lost to natural and human forces. It includes a guide to rock art sites in the United States. *Grades 4-8*

Terzi, Marinella. *Prehistoric Rock Art.* Translated by Angela Ruiz. (Chicago: Childrens Press, 1992).

Translated from Italian, this book is part of UNESCO's World Heritage series. It discusses the subject matter, techniques, and cultural significance of paintings and engravings on rocks at World Heritage sites throughout the world. *Grades 4-6*

Background Reading

Grant, Campbell. *The Rock Art of the North American Indians, 5th ed.* (Cambridge: Cambridge University Press, 1983).

The introductory chapter includes discussions of the history of rock art research, rock art techniques, defining rock art styles, and interpreting function. Subsequent chapters provide summaries of rock art in ten regions of North America. The book includes many drawings and color plates.

Kirkland, Forrest. *The Rock Art of Texas Indians.* Reprint. (Austin: University of Texas Press, date).

This is a reprint of a classic 1967 study by a Dallas artist who meticulously copied rock art from 80 sites. Anthropologist W. W. Newcomb provides the accompanying text. Many of the sites recorded in this book have been damaged or destroyed.

Patterson, Alex. *A Field Guide to Rock Art Symbols of the Greater Southwest.* (Boulder: Johnson Books, 1992).

A comprehensive field guide with an excellent introductory chapter, this book includes illustrations of rock art elements and published interpretations of each element. It also features a guide to southwestern rock art sites and an extensive bibliography.

Schaafsma, Polly. *Indian Rock Art of the Southwest.* (Santa Fe and Albuquerque: School of American Research and University of New Mexico Press, 1980).

This book provides an excellent overview from the preeminent expert on southwestern rock art. It includes descriptions of basic concepts used in the study of rock art and thought-provoking discussions about what archaeologists can learn from rock art.

Young, M. Jane. *Signs from the Ancestors: Zuni Cultural Symbolism and Perceptions of Rock Art.* (Albuquerque: University of New Mexico Press, 1980).

In a study of rock art from the point of view of the Zuni in New Mexico, Young discusses the relationship between rock art images and Zuni symbolism, and their perceptions of the world. It shows that rock art remains an important part of contemporary Zuni culture.

Institutional Resources

Rock Art Archive, Institute of Archaeology, Fowler Museum of Cultural History, University of California, Los Angeles, CA 90024-1510; (310) 825-1720

The Rock Art Archive is a laboratory unit of the UCLA Institute of Archaeology. Its purpose is to provide a permanent repository for records and reports on rock art in California, the Far West, the Pacific Islands, and Central and South America; and to support research and rock art studies. Documentation includes photos, slides, drawings, field notes, correspondence, and published and unpublished manuscripts.

The archive encourages people to make use of its holdings. Although materials are noncirculating, the archive offers maximum access within established archival procedures, the ethics of archaeology, and its own operational limits. Donations of duplicate or original field records are encouraged.

Current projects include an on-line bibliography of archive holdings; a CD-ROM slide file and educational presentations; a guide to the collections; documentation of

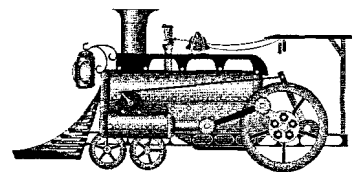
rock art sites, and computerization of California rock art site records. Volunteers are invited to join in this exciting work.

For information about archive hours, volunteer projects, fieldwork opportunities, and grants for graduate students, contact Archive Director Jo Anne Van Tilburg.

Deer Valley Rock Art Center, P.O. Box 41998, Phoenix, AZ 85080-1998; (602) 582-8007

The largest petroglyph site in the Phoenix area, Deer Valley Rock Art Center has over 1,500 petroglyphs. Public access is provided by an interpretive trail. Discovery Packs include materials for recording observations and making connections between the images and their surroundings.

Indoor exhibits interpret the rock art from the point of view of Native Americans, archaeologists, naturalists, and artists. Programs for school groups increase awareness of heritage preservation, cultural diversity, and environmental education. The center will house the ARARA archives by the end of 1997.



The Education Station invites examples of lesson plans and activity ideas, comments about useful resources, and articles about unique approaches to teaching archaeology. Please accompany text with illustrations or photographs. Black-and-white prints are preferred, although color slides and prints can be used. Do not send negatives.

Send material to Cathy MacDonald, 570 Walsh Drive, Port Perry, Ontario L9L 1K9, Canada; (905) 666-2010.

From Rock Outcrop To Museum Exhibit

Amy A. Douglass

The exhibit, "Images on Stone," that appeared at the Tempe (Ariz.) Historical Museum from March to September 1995 originated from a rock art documentation project undertaken in the heart of urban Tempe.

Hayden Butte is a prominent landmark in the metropolitan Phoenix area, adjacent to Arizona State University. Although few people realize it, hundreds of Hohokam petroglyphs are located on the south side of the butte. They had not been documented systematically prior to this project.

There was clear evidence of damage and vandalism, but without baseline data, an accurate assessment or proper management plan in this densely populated area was not possible. The Arizona State Parks Department awarded a grant to the City of Tempe in 1994 to conduct a survey of the Hayden Butte rock art. Larry Loendorf and Associates were contracted to do the survey. "Images on Stone" was developed to fulfill the public education component of the grant.

Exhibit Objectives

This exhibit offered visitors an opportunity to understand and appreciate rock art using the Hayden Butte project as an example. The primary goal was to teach the public about rock art in general, rather than presenting a great deal of detail about Hohokam rock art per se. It was hoped that visitors would have an increased awareness and appreciation for the subject as a result of seeing the exhibit.

In producing an exhibit with a specific message, the planning phase begins by identifying the target audience and the intended message (the goals and objectives). By knowing the target audience, the message can be presented at an appropriate level to maximize audience comprehension. By defining goals and objectives, the content will remain focused on the main message. Too much superfluous or indirect information can dilute the message or overwhelm the visitor, thus compromising the effectiveness of the exhibit.

It was assumed that the target audience of "Images on Stone"—the average museum visitor—knew little or nothing about rock art. We also assumed that many visitors would

arrive with misconceptions garnered from media and popular literature. Polly Schaafsma's phrase "images on stone" (1980:1) was selected as the title and used throughout the exhibit because of the misleading nature of the term "rock art."

Our overall goal was to define rock art and to communicate major issues related to its interpretation and preservation. Subsumed under this goal were five major objectives: to dispel common myths about rock art and define what rock art is and is not; to teach visitors that rock art consists of visual symbols; to make visitors aware of problems associated with assigning meaning to rock art; to make visitors aware that rock art is a fragile resource; and to teach visitors how to visit and appreciate rock art sites without causing damage. Tied to these objectives were eight teaching points, listed in the box.

"Images on Stone" incorporated eight teaching points about rock art:

- Rock art can be defined as a graphic way to convey information (Hirschmann and Thybony 1994:9).
- Rock art is found worldwide.
- Rock art is not art in the Western sense or a form of writing.
- Rock art consists of visual symbols.
- An ascribed meaning is an explanation or definition of a rock art image that actually assigns it a meaning; an objective description describes the appearance of an image without stating any meaning.
- Visual symbols can be assigned different meanings by different cultures and different individuals within the same culture.
- Rock art is being damaged and destroyed by vandalism, development, pollution, and other human activity.
- There are rules of behavior to be followed to prevent damage while visiting rock art sites.

the main message or story line.

Layout And Design

The exhibit used photos, graphics, and text blocks to communicate information to viewers. Text length was kept to a minimum, and specialized terms and key phrases were printed in red to contrast with other text, which was printed in black. The color coding provided the option of quickly skimming the text and picking out the main message in each panel. Provocative quotes from Native Americans and authors who have pondered the meaning of rock art were used to catch the visitor's interest.

Text and graphics used to communicate major teaching points were placed in a linear arrangement along one wall of the exhibit gallery. Two octagonal kiosks in the middle of the gallery provided additional, segmented wall space where in-depth information was presented for viewers with a higher level of interest. Locating this information required further exploration in the gallery, giving determined visitors a sense of discovery, yet it did not interfere with

Continued on page 13

Graphic: Petroglyph panel on Hayden Butte as it may have appeared prehistorically. Courtesy of the Tempe Historical Museum.

Shamanism . . .

Continued from page 6

1989:1). While considerable attention is paid to shamanism, there is little understanding of its basic components because researchers have not developed a series of fundamental principles or a collective definition. In part, this reflects the diversity within shamanism, which is practiced worldwide. The complexity of such a widespread phenomenon makes it difficult to find consensus. Research recently has been directed toward remedying this matter (Winkelman 1989; Walsh 1989), with studies on the similarities and differences of shamanism among world cultures.

A clear link exists between the practice of shamanism and hunting and gathering cultures. Using a cross-cultural study of a sample of world cultures, Winkelman (1989) presents a correlation between shamans and nonsedentary cultures that practice some combination of hunting, foraging, or fishing as their primary means of food procurement. In sedentary villages where inhabitants procure their food by gardening or agriculture, shamans usually are overshadowed by other religious institutions.

Cultures that practice shamanism tend to divide their universe into objective and subjective space. Objective space includes the region that has been explored and is known to the members of the culture. Subjective space includes the unknown parts of the universe. The sky and things that are in it, the underworld that exists beyond the passages of caves, and water that swirls at the bottom of a whirlpool are examples of subjective space. A basic power of shamans is the ability to pass from objective into subjective space. They accomplish this exploration by travel taken during altered states of consciousness.

Trance States And Rock Art

Lewis-Williams and Dawson (1989) offer a framework for interpreting rock art; labeled the "neuropsychological model," it is based on the visions or dreams of individuals in altered states of consciousness. They use ethnographic accounts of the Australian Bushmen to interpret rock art by examining the process of entering trances. They note that rock art produced by the Bushmen is a combination of various stages of trance. The explanation of rock art images is intertwined with metaphors that can only be interpreted by understanding Bushman culture.

The two researchers also assert that individuals who enter trances experience similar phenomena, regardless of their cultural affiliation. The acquisition of a vision seems to be rooted in human biology and, although the process is influenced by culture, it follows a similar course throughout the world. At the beginning of a trance an individual sees flickers of light or wavy patterns, called posphenes or entoptic phenomena. These phenomena are sufficiently regular that they can be classed into several groups, such as dots and short flecks, sets of parallel lines, zigzag lines, angular lines, and grids across the field of vision.

As the trance progresses, abstract images take on a form that has meaning. In this stage, the entoptic phenomena start to look like something recognizable in the supplicant's culture. Ultimately, the supplicant receives a full-scale vision with motion. Individuals also describe a sensation of having their bodies being drawn, or pulled, into the experience.

An auditory component often accompanies the vision; the supplicant often equates the sound with something familiar to him or her.

Any single part of the trance, or all of these components, may be depicted in rock art: the entoptic phenomena, constricted images, stretched or misshapen body, the auditory component, or full-scale vision. The key to recognizing rock art images related to altered states of consciousness is the identification of a series of universal attributes across many cultures. Power lines connecting figures to one another and radiating lines from the head are examples of universal attributes that have been documented.

In some cases, the trance may involve travel into rock walls, entering through a cave, a crevice, or a hole in the rock on which the rock art is found. This journey can be led by the spirit helper, such as the *Kakaka* or the *Gans*. Other images may be associated with the rock because the rock itself is recognized as a powerful force. Power from the rock is acquired by associating with it, by putting one's hands on it, carrying a small fragment of it, or pecking or painting on it.

Rock art on the surface of the rock adds to its power. After an artist applies an image, the surface is distinguished from that around it. Once the image is created, it may receive the attention of any passerby, perhaps to pay respect or offer a prayer. Adding other images serves as a memorial to the site. Sometimes the new rock art is a copy of an original image; other times, it might be an original drawing or engraving. Often, the additions are rather casually done.

Conclusion

Many researchers believe that the lion's share of rock art in the world was associated with shamans' trance states. Some images may have been completed during trance, and others after the trance was completed as a record of the experience.

Although archaeologists believe that many rock art images had their origins in shamanism, they also recognize that there are other explanations. Once images are integrated into a society, they can be used for many different purposes. Some rock art has been used to mark territorial boundaries; other rock art apparently was used for calendrical purposes and associated with solar events such as solstices. Shamans and rock art are most common among hunting and gathering societies, but other cultures whose economic pursuits were dominated by horticulture or pastoralism also made rock art. In these instances we do not know whether the images were linked to shamanism, or whether they were related to another cultural institution.

Many rock art sites are recognized as part of the traditional culture of present-day Native Americans. Sites are still actively used by some tribes. Visitors to rock art sites should recognize the rights of others and treat them with respect.

Rock art specialist Larry Loendorf is a research professor in sociology and anthropology at New Mexico State University, Las Cruces, NM 88003; (505) 646-3821. This article was adapted from With Zigzag Lines I'm Painted: Hohokam Petroglyphs on Tempe Butte, Arizona by Larry Loendorf and Chris Loendorf (Tucson: Loendorf and Associates, 1995).

Continued on page 13

Exhibit . . .

Continued from page 11

In-depth topics covered included the ways in which rock art has been used by historic and modern Native Americans (Grant 1983:13-14); the swastika as an example of the power of visual symbols, as well as its differing meanings in Western and Native American cultures; and the worldwide distribution of certain images such as human hand prints.

Interactive Elements

Hands-on elements, designed for both school groups and families, were incorporated to engage children and focus their attention on selected teaching points. The activities required adult supervision for most age groups; it was hoped that adults would find them engaging as well. These interactive elements were placed inside the kiosks to provide a segregated space in which families or students could participate without disturbing other visitors.

One activity was designed to teach children to recognize visual symbols. Examples of commercial logos popular with children were mounted on foamcore cards with magnetic strips. Children were asked to arrange the logos on a magnetic board and match them with logo names, also mounted on magnetized cards. Another activity asked children to arrange rock art symbols, their objective descriptions, and ascribed meanings into three respective columns. For example, an image of a snake would be placed in the image column; the phrase "wavy line with triangle at one end" would be placed in the objective description column; and the word "snake" would be placed in the ascribed meaning column.

One of the most popular children's activities was a flip chart on which they could draw an outline of their own hand. As each page was filled, it was placed on an exhibit wall reserved for this purpose. In this way, children were able to experience what it felt like to leave personal marks behind for others to find. A take-home pamphlet was designed to reinforce information presented in the exhibit and to provide visitors with suggestions for continued exploration of rock art. The pamphlet included condensed versions of some of the interactives, vocabulary words, information on local rock art sites that are open to the public, and a reading list.

Associated Programming

Three programs were given in conjunction with "Images on Stone" to further enhance educational objectives of the

exhibit. A two-hour training class was offered to museum docents who would be conducting group tours. Tom Hulén, curator of education at Pueblo Grande Museum in Phoenix, presented an informal slide presentation on Hohokam rock art for the general public. Finally, Barbara Groneman of Southwest Learning Sources taught a rock art workshop to children during the summer, in which participants toured the exhibit, learned basic concepts, took part in art projects, and saw the rock art on Hayden Butte.

Conclusions

Public response to the exhibit was very positive. I was called into the gallery on many occasions to speak with visitors who had questions, or who wanted to tell me about their experiences with rock art. The interactive elements worked well with school groups and other visitors also used them. The docents were especially appreciative that unfamiliar terms such as "pictograph" and "petroglyph" were printed in red so that they could locate and point them out easily.

"Images on Stone" provided visitors with an introduction to basic concepts and issues associated with rock art. Our museum continues to pursue other venues and types of programming, such as traveling displays and tours of the rock art on Hayden Butte, to reach more of the public with the important message that we must respect and preserve these irreplaceable windows to our prehistoric past.

Amy Douglass is administrator of the Tempe Historical Museum, 809 E. Southern Ave., Tempe, AZ 85282; (602) 350-5105.

Acknowledgments: The rock art documentation project that was the impetus for "Images on Stone" was funded by the Arizona State Parks Heritage Fund, Grant #649312, and the City of Tempe.

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Shamanism . . .

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- Russell, F.

Network News

Phil Carr, Network Coordinator

At the SAA annual meeting in Nashville in April, I was selected as the new chair of the Network Subcommittee. A *Big Thank You* is extended to Beverly Mitchem-Chiarulli, the outgoing chair, for her efforts for organizing and maintaining the network over the past several years.

The Network Subcommittee has several new initiatives in the works. Linda Derry is developing a "starter pack" for

new coordinators, and Gwynn Henderson is working out the best method for the submission of annual reports. The task of maintaining and expanding the network falls to Nancy Hawkins.

Please send comments or questions to me at the Mississippi Department of Transportation, Environmental Division 87-01 AR, P.O. Box 1850, Jackson, MS 39215; (601) 944-9372.

Archaeological Parks

Mary L. Kwas, Parks Column Editor

Many grades study Native American cultures at the beginning of the school year, and a perfect complement to this is a field trip to an archaeological park. In addition to the special events listed below, most sites give guided tours and provide special programs for school groups. Call your local archaeological park to see what is offered, and don't forget to look for them on the Internet because many now have World Wide Web sites.

Archaeological parks can send information to me at the Arkansas Archeological Survey, P.O. Box 1249, Fayetteville, AR 72702-1249; (501) 575-6560, (fax) 575-5453.

Wickliffe Mounds, Wickliffe, Ky., will feature the First Nation Dancers on September 20-21. These Native American performers will share the attire, music, dances, and stories of their heritage. Flint Knappers Weekend will be held on September 27-28. Visitors can watch the knappers turn rocks into projectile points, knives, drills, and other tools, and see displays of the crafters' best work. Contact: (502) 335-3681.

SunWatch Archaeological Park, Dayton, Ohio, will provide numerous fall programs, including some specifically targeted to scouts and home schoolers. A choice of programs for school groups is available, covering such subjects as pottery, beadwork, flint knapping, bone tool making, and winter life. The Hunters & Harvest Weekend was held September 13-14; visitors helped to gather the summer's bounty, learned how the people of SunWatch stored and preserved food, discovered how Native Americans tracked and hunted animals, and tried using a bow and spear thrower. Contact: (513) 268-8199.

Cahokia Mounds, Collinsville, Ill., will celebrate Heritage America on October 3-5, with craft demonstrations, hands-on activities, and traditional dances and music. An Artifact Identification Day and Fall Equinox program will be held on September 21, and a Winter Solstice program will be held on December 21. Contact: (618) 346-5160.

The **Ohio Historical Society** has scheduled events at two of Ohio's archaeological parks this fall. Storytelling Under the Stars was held on September 13 at **Moundbuilders State Memorial** in Newark, during which storyteller Dewey Chaffin shared stories of the Cherokee Nation. On October 11, **Flint Ridge State Memorial** in Newark will host Pioneer Day. Artisans will be on hand to demonstrate and explain to visitors how pioneer settlers lived in the forests and on the prairies of the Ohio country. Contact: (800) 600-7174.

Toltec Mounds, Scott, Ark., has a number of events planned for the fall and winter. Highlights include Primitive Fishing Technologies, September 27; Slate Workshop, October 11; Rabbit Stick Workshop, November 8; Loom Weaving Workshop, November 22; and Bone Working Workshop, December 6. Contact: (501) 961-2420.

Spiro Mounds, Spiro, Okla., will offer an Autumnal Equinox Night Walk on September 22. The equinox will be observed from Brown Mound, and participants will hear stories about the Spiro Mounds culture. A Winter Solstice Walk also will be held on December 21. Contact: (918) 962-2062.

Dickson Mounds, Lewistown, Ill., will sponsor Crafting with Porcupine Quills on September 20. Lyn Young Buck will present an introductory class on Native American porcupine quillwork, covering the preparation of the quills, basic wrapping, and embroidery techniques. The Kaskaskia River Dancers performed at the site on September 7 as part of an open house celebrating the museum's 70th anniversary. Contact: (309) 547-3721.

For teachers who can't take their classes to an archaeological park, don't forget that many parks also offer outreach programs and loan materials. Many parks now have "traveling trunks," such as those offered by the **Hopewell Culture National Park**, Chillicothe, Ohio. Topics include Hopewell Living Map and Hopewell Tool Time. Contact: (614) 774-1126.

WORTH NOTING

SAA Rock Art Interest Group

While rock art has not been a mainstream archaeological concern in North America, the last decade has experienced a revolution in techniques and methods. Nonetheless, rock art research is in its infancy, with considerable distance to go before it becomes standard archaeological practice.

The SAA Rock Art Interest Group was created as an informal network of researchers to foster interchange and support. The first group meeting was held at the SAA annual meeting in Nashville, where the interest group also participated in a roundtable lunch discussion and rock art symposium. A national "Most Endangered Rock Art Sites" list currently being compiled is designed to bring attention to the problem of site destruction and to aid in preventing site loss. For information, contact David Whitley at huitli@isle.net.

ARARA Resources

The American Rock Art Research Association (ARARA) offers an education packet that contains introductory material on rock art, preservation guidelines, one-page lessons, and rock art field trip activities. Limited quantities are available for \$5. Contact Ellen Martin, ARARA education committee chair, P.O. Box 27622, Tempe, AZ 85285-7622; (602) 820-1474. A list of rock art organizations in the United States and abroad also is available for \$1.

Anasazi Site On CD-ROM

Woods Canyon Archaeological Consultants, Inc., have produced a CD-ROM about the excavation of an Anasazi site in southwestern Colorado. This interactive site report is rich in graphics depicting roof and kiva construction, and site stratigraphy. Links are provided throughout the report, and appendices are included. The CD-ROM, which runs on both IBM and Macintosh computers, is available for \$19.95 plus \$3 shipping from Woods Canyon Archaeological Consultants, Inc., P.O. Box 253, Yellow Jacket, CO 81335.

MVAC Educational Resources

The Mississippi Valley Archaeological Center provides teaching packets for sale. Packets contain text, a bibliography, and pictures needed to create in-class learning centers. Topics include archaeologists and the scientific method, ar-

chaeologists' tools, and specialized occupations in archaeology. Many children's books also are available. For further information, contact the MVAC, Archaeology Education Program, 1725 State St., La Crosse, WI 54601; (608) 785-8454.

Environment And Heritage Kit

Discover Cathlapotle!, an environmental and heritage education kit about a Chinook site, was developed by the U.S. Fish and Wildlife Service. Geared for grades 3-6 and adaptable for different age groups, the kit includes artifact replicas, reference materials, and curriculum-related activities. For more information, contact Project Coordinator Virginia Parks, c/o Anan Raymond, U.S. Fish and Wildlife Service, Tualatin NWR, Sherwood, OR 97140; (503) 625-4377.

ASOR Workshop

The American Schools of Oriental Research Outreach Education Section will present a workshop for teachers and the public, entitled "Beyond Popular Mythology: An Archaeological Update on the Ancient Near East," on November 22 at the Archaeological Research Facility at the University of California, Berkeley.

The workshop is free, but reservations are limited. For more information, contact Carolyn Draper Rivers, ASOR outreach education chair, 2902 Monterey Ct., Springfield, PA 19064; (610) 543-5079, cfdrapeer@aol.com.

Editorial. . .

Continued from page 2

ample, different prehistoric cultures had distinctive styles of drawing or pecking. Archaeologists can trace the geographic boundaries of these ancient cultures by recording the distribution of certain styles across the landscape. They also can identify the exchange of ideas over long distances by finding similarities in images on stone. By identifying correlations between certain types of images and geographic or human-made features, archaeologists can uncover clues to the images' purposes.

We have a great deal to learn from these powerful images even though their messages may never be revealed. They provide us with a direct link to humanity's past. For that reason, we continue to study and be fascinated by them.

AAD

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NEWS AND NOTES

Call For Nominations

SAA is calling for nominations for the 1998 Excellence in Public Education Award. Eligible candidates include teachers, museum educators, administrators, interpreters, and others who have contributed to public education through writing, speaking, and presenting information about archaeology to the public, or through facilitating institutions and other individuals in their public education efforts. Professional archaeologists are considered under a separate category and are not eligible for this award.

Nominees will be evaluated based on their creativity, leadership, and public impact. Nominations should consist of a letter identifying the nominee and explaining his or her contributions to public education. Letters may be accompanied by a resume and supporting documents. Send nominations by December 1 to Amy A. Douglass, Tempe Historical Museum, 809 E. Southern Ave., Tempe, AZ 85282; (602) 350-5105, email on page 15.

Lerner Selected To Head PEC

Shereen Lerner has been appointed by the SAA Executive Board as the new chair of the Public Education Committee. Assuming the reins from Ed Friedman, who has chaired the PEC since its

inception in 1990, Lerner's term begins after SAA's 1998 business meeting.

Lerner was a participant of the Save the Past for the Future Conference in 1989 that resulted in the formation of the PEC. She also served as the SAA secretary-elect and secretary from 1990-93, and has served on six other committees. She presently is on the faculty of Mesa Community College and is a principal investigator for Archaeological Consulting Services in Tempe, Ariz.

Deadline for winter issue: Oct. 20

Theme: Computers and Archaeology

Attention SAA Members!

Unless you renew today, this will be your last issue of
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We hope that you have enjoyed your free subscription to *Archaeology and Public Education*. To continue receiving *A&PE*, send a copy of the mailing label below to "A&PE Renewal," c/o the SAA executive office at the address below, or an email to headquarters@saa.org, and state that you wish to renew your subscription. To ensure uninterrupted service, your renewal must be received by December 31, 1997. You will not receive another renewal notice.

NOTE: Only SAA members in the regular, student, and associate member categories need to renew their subscriptions as noted above. Nonmember individual and institutional subscribers will receive a separate renewal notice in October.



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