



ESRARA NEWSLETTER

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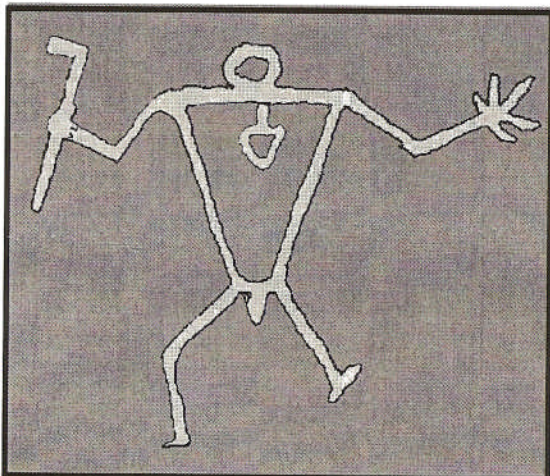
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"Dancing," or praying, five fingered male anthropomorph with upraised arms and a heartline holding a smoking pipe. Pipestone National Monument, Pipestone, MN. Drawing by W. H. Holmes, c.1892, Smithsonian Institution Archives.

President's Message - -

Ah, spring! Along with the jonquils and crocuses, there are invariably a number of spring archaeology meetings coming up. A couple of these events on the calendar may be of interest to rock art researchers. As many of you know, there is the annual meeting of the Society for American Archaeology (SAA) in Philadelphia (April 5-9). There will be three rock art sessions at this meeting. Although this is the first national meeting in a long time at which ESRARA will not have a symposium, there will be ESRARA members giving rock art papers in sessions. These include Donna Gillette and Kevin Callahan.

Then from May 26-29 is the annual meeting of the American Rock Art Research Association (ARARA) in Phoenix, Arizona. Of course, the entire focus of this meeting is rock art! The meeting is at the Heard Museum. The conference hotel is Los Olivos (800-776-5560) and registration information can be obtained from Sharon Urban (surban@u.arizona.edu).

I would like to renew ESRARA's request for any members interested in serving on the following committees. We have had a handful of responses, but need many more willing and able members to make these committees meaningful - and work!

Rock Art Preservation

Rock Art Education

Central Repository for Eastern Rock Art Data

Let me hear from you at:

cdiazgra@artsci.wustl.edu

Hope to see you at the upcoming meetings and in the meantime, I wish you all a happy springtime.

Carol Diaz-Granados

**DISTRIBUTION OF
ESRARA MEMBERSHIP**

We thought it would be of interest to you to see the wide distribution of our members. These members have joined by word of mouth. We hope to encourage more rock art researchers, particularly in the Eastern U.S., to join our organization. If you know of any, please pass along the enclosed membership form.

UNITED STATES

ALABAMA	4
ARKANSAS	1
ARIZONA	4
CALIFORNIA	3
CONNECTICUT	1
DC	2
GEORGIA	4
ILLINOIS	3
INDIANA	1
IOWA	2
KENTUCKY	4
MAINE	5
MARYLAND	3
MASSACHUSETTS	1
MICHIGAN	1
MINNESOTA	4
MISSOURI	5
MONTANA	1
NEW HAMPSHIRE	1
NEW JERSEY	2
NEW YORK	2
OHIO	2
PENNSYLVANIA	4
RHODE ISLAND	1
NORTH CAROLINA	2
SOUTH CAROLINA	2
TENNESSEE	
UTAH	1
VIRGINIA	1
WASHINGTON	1
WISCONSIN	8
WYOMING	2
FOREIGN:	
AUSTRALIA	2
NOVA SCOTIA	1
QUEBEC	1
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TOTAL	85

ROCK ART OF THE EASTERN WOODLANDS,

Proceedings from the Eastern States Rock Art Conference (Edited by Charles H. Faulkner) is now available from ARARA (Occasional Paper #2, 1996). This excellent publication contains contributions by: Coy, Diaz-Granados, Faulkner, Hedden, Henson, Hockensmith, Hranicky, Lenik, Lowe, Mooney, Swauger, and Wagner. Copies are \$16 and may be ordered from ARARA, P.O. Box 65 San Miguel, CA 93451.

DON'T FORGET TO SEND IN YOUR \$12.00 DUES TO:

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SEND NEWS ITEMS FOR THE SUMMER NEWSLETTER TO:

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This issue of the ESRARA newsletter was printed by Prairie Smoke Press, St. Paul, Minnesota. Prairie Smoke Press is dedicated to publishing books on archaeology, anthropology, and western Americana.

Prairie Smoke recently re-published "Beliefs and Tales of the Canadian Dakota" by Wilson Wallis and printed Volumes 55-58 of "The Minnesota Archaeologist."

We are currently in the process of publishing two rock art books: "The Gottschall Rockshelter: An Archaeological Mystery," by Robert Salzer and Grace Rajnovich, and "The Jeffers Petroglyphs: Native American Rock Art on the Midwestern Plains," by Kevin Callahan.

We accept manuscripts on rock art research and related topics.

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The Safe Harbor Petroglyphs

by Paul Nevin

Since the 1860's perhaps 1,000 petroglyphs have been recorded from several sites on the 25-mile stretch of the Susquehanna River, the river between Columbia, Pa. and Port Deposit, Md. From 1863 to 1932 it appears that at least 158 sections of rock were "rescued" from being flooded by dams. Well over 200 plaster casts were made by various researchers. Hundreds of photos were taken of the carvings *in situ*. Sadly, many of these collections have been lost or forgotten over the ensuing years.

In my spare time, over what has now been nearly 20 years, I have taken on the job of trying to reassemble some of this valuable information. My specific interest has

been in the sites in the waters just below Safe Harbor Dam about 15 miles north of the Maryland state line.

Although they were noted in various reports dating back to the 1860's, Donald Cadzow's work during 1930-31 and published in 1934 by the Pennsylvania Historical Commission has remained the best documentation of this site (see *Petroglyphs In the Susquehanna River Near Safe Harbor, Pennsylvania, Safe Harbor Report No. 1*). Cadzow's report detailed the two rocks known as Big Indian Rock (36 La 184) and Little Indian Rock (36 La 185), as well as two other sites further upstream, Walnut Island (36LA187), and Cresswell Rock (36LA188).

My systematic search of the area surrounding the Big and Little Indian Rocks, begun in 1989, yielded 4 more sites, Circle Rock Petroglyph (36 La 1091), Eagle Rock Petroglyph (36 La 1092), Turkey Track Rock Petroglyph (36 La 1093), and Conestoga Rock (36 La 1255). Documentation of these sites has yet to

be published. Several carvings were also recorded on a rock just 5 feet upstream from Little Indian Rock not documented by Cadzow. Additionally, I discovered that Cadzow's charts contained inaccuracies in

the shapes and location of carvings and omitted many carved designs.

The sites, which originally were in an area of shallow rapids near the Lancaster County shore of the Susquehanna River, are now isolated rocks surrounded by water at the upstream end of the lake formed by Holtwood Dam. The rocks range in size from 15 by 17 feet to 50 by 70 feet. If placed

together they would cover roughly one quarter acre. Over 300 designs, made up of over 440 design "elements," are carved into the 7 rocks. (By design element I mean each discretely carved element of a design. For example, a face, a carved circle containing *two* carved dots for eyes, and a carved line for a mouth would be considered as *four* design elements) The carvings are very shallow, averaging from less than 1/32" to 3/16". Many are very difficult to see in less than optimal lighting conditions.

In 1993 and 1994 I produced photo-mosaics of over 400 of the design elements. I have prepared preliminary charts of Circle Rock and Eagle Rock, and a preliminary chart of Little Indian Rock is currently being completed. These charts differ from Cadzow's in that his charts were made up of sketches of the carvings. My charts have been produced by accurately tracing actual photographs. Although this provides a better record of the carvings, further work



Anthropomorphic image from the Safe Harbor petroglyph site.

needs to be done to more fully document the designs. Discrepancies in the size, orientation, and location of designs resulting from distortion of photographic fields of view need to be corrected. Also the topography of each rock and the location of each design on it needs to be accurately mapped.

In decreasing order of occurrence the carvings depict: dots or cups, bird tracks, animal tracks, animals, abstract shapes, humans, 'thunderbirds', human footprints, serpents, circles, and birds. While in nearly all cases the designs are fully carved into the surface (intaglio), at least three appear to be carved in relief (the surface of the rock surrounding the design is carved away leaving the design itself). Two of these designs

are serpents. The third is a cup with radiating lines which is carved "intaglio style." Overlapping a portion of this appears to be a "dot" which is carved in relief. The resulting image looks very much like a depiction of the moon partially obscuring the sun, as in a partial eclipse.

Other interesting features at the sites include previously unreported rock shelters under Little Indian and Big Indian Rocks, cups which appear to be associated with human and animal designs, lines of animal tracks, a set of cups which resemble the Pleiades constellation, and a set of human footprints which face directly toward the mouth of a river that enters the Susquehanna just upstream from the sites. Five miles up this river a village belonging to the Shenks Ferry Culture (1000 AD -1500 AD) has been unearthed that contains evidence of astronomical observation in the layout of a 'ceremonial structure' (Custer, *Prehistoric Cultures of Eastern Pennsylvania*, pg 283) .

Last year the 'Friends of the Safe Harbor Petroglyphs' was formed to raise awareness of these

sites and to work toward protecting and preserving them.

Currently the group is engaged in an effort to have a video surveillance camera installed at the dam just above the sites to monitor activity on the rocks.

I'm also continuing my (unfunded) effort to fully document the petroglyphs. I invite anyone with an interest in this site to come study it. There is still much work to be done.

The Friends of the Safe Harbor Petroglyphs website can be accessed at <http://members.aol.com/SusqueKal/SusquehannaRiverRockArt.htm> or through links on the ESRARA or siftings.com websites.



Petroglyphs at Little Indian Rock, Pennsylvania

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The Dating of Cupules in Georgia.

by Johannes (Jannie) Loubser

In Georgia, cupules have been identified on at least the following three types of rock support: (a) monolithic-like rocks not attached to bedrock, (b) cliffs and boulders attached to bedrock, and (c) portable rock slabs.

Cupules found on monoliths tend to be surrounded by concentric circles or are associated with occasional cross within circle motifs. Cupules found on bedrock outcrops and boulders either occur alone or are associated with pecked representations of human hands and feet, bird tracks, anthropomorphs, vulvas, and cross within ring. Comparatively smaller portable rock slabs tend to have only one or two shallow cupules, ranging from nut-sized to approximately 10 centimeters in diameter.

The unusual shape and placement of cupules, together with their occurrence among more elaborately pecked motifs is an indication that any "straightforward" functionalist-subsistence interpretation is likely to be an oversimplification. Cupules are generally too small to have served as mortars, and too symmetrical in their arrangement to have been used for grinding down the ends of pestles. Apart from the absence of any scars or scratches left by pounding or grinding within most cupules, any food worked in such a small depression would either pack and become paste in the bottom or spill. In Georgia, cupules frequently occur on vertical sides of big boulders or even on ceilings of rock shelters, indicating that they could not have been used as bedrock mortars or nutting pits.

Cupules in Georgia are surprisingly ubiquitous in areas with rock outcrops. By comparing the pecked imagery, including cupules on the rocks, with similar designs on ceramics in the same region, it could be that the rock peckings in Georgia date from roughly the Late Woodland to the terminal Mississippian. This implies an almost eight century long tradition, dating to between 1,300 and 550 years ago. Moreover, Tommy Hudson has reported cupule-only occurrences close to ceramic scatters at approximately 40 sites in northern Georgia. This association would support a Late Woodland-Mississippian date for cupules.

Of course, mere spatial association and stylistic similarities do not constitute proof of

contemporaneity between rock markings and ceramics. Ideally, other types of evidence are needed to check the inferred temporal relationships between the two different kinds of material remains.

Additional evidence for the association between cupules and Woodland ceramics comes from a series of stone piles east of Stone Mountain, north-central Georgia. Here, at a site designated 9Da258, distinctive slabs of dark hornblend occur within roughly stacked piles of predominantly granite and quartz rocks. Personal inspection of individual hornblend slabs showed that a shallow cupule, roughly 10 cm in diameter, occurs on at least one flat side. Such portable slabs are similar in appearance to those collected elsewhere in the Southeast by avocational archaeologists.

A cupule, sealed by an intact Late Woodland-terminal Mississippian midden, was uncovered by the author during New South Associates's 1997 Phase III data recovery excavations of a small site on the Yellow River, east of Stone Mountain.

The midden was located on a rock bench, directly between a small rock shelter and some dramatic river rapids. The author's proper cleaning of a remnant dark midden deposit from the bottom of previous Phase II test excavations conducted by another company in 1996 revealed a near pristine circular depression feature which was obviously pecked into the level surface of the flat granite bench. The cup-shaped depression (Cupule #1) was approximately 10 cm in diameter and roughly 2 cm deep. Inside Cupule #1 was a secondary cupule, measuring 4 cm wide and 0.5 cm deep. Meticulous peck marks on the interior surface of the cupule attest to its cultural origins, while its crisp rim edge attests to minimal weathering prior to being buried by the midden. It was therefore only after its re-exposure during the 1997 Phase III data recovery that the cupule was identified as a cultural feature. The serendipitous re-discovery and identification of the cupule by the author alerted fellow New South archaeologists about the possibility of other cupules in the vicinity. On a private visit to the site, Tommy Hudson noticed a second cupule. This cupule (Cupule #2) was located across the dark midden from Cupule #1, approximately three meters towards the southeast. Cupule #2 occurred on top of

a protruding rock outcrop and was not covered by the midden. The dimensions of Cupule #2 are somewhat smaller than Cupule #1, measuring approximately 5 centimeters in diameter and scarcely one centimeter deep.

In terms of stratigraphic association, at least the bigger cupule (i.e., Cupule #1) certainly predates the midden deposit. Significantly, no anomalies or posthole-like features occurred in Test Unit 3's historic or prehistoric midden layers above Cupule #1. Moreover, considering that Late Woodland/Emergent Mississippian subperiod ceramics (i.e., Late Swift Creek/Woodstock) were the only culturally diagnostic items recovered from the overlying midden, the cupule minimally dates to a thousand years ago.

Considering the sealed context of Cupule #1 and prehistoric artifacts from the layers immediately above it, the cupule is not an artifact of core drilling for the proposed new bridge. Moreover, patination on the interior surface of the cupule indicates that it has not been recently worked. Had it been worked in recent times, the rock surface would have had a lighter appearance than the surrounding rock. In any case, signs of fine pecking can be detected on the interior surface of Cupule #1.

The recovery of Late Swift Creek Complicated Curvilinear Stamped, Averret Incised, Woodstock Complicated Rectilinear Stamped, Etowah Complicated Diamond Stamped, Savannah Complicated Curvilinear Stamped, and Lamar Incised ceramics from the midden deposit suggests a date range of AD 1000 to AD 1450. A charcoal sample (Beta-108139) from the midden that covered Cupule #1 yielded a conventional radiocarbon age of 520 ± 60 B.P. When calibrated within a two sigma error (95% probability), the charcoal dates to between A.D. 1310 to 1365 and A.D. 1375 to 1470 (with the "central" intercept calibrating to A.D. 1420). The one sigma (68% probability) calibrated results range between A.D. 1400 to 1440.

Bearing in mind that the radiocarbon sample provides a terminus post quem, or "date after which", for the midden, the date makes sense, since it falls within the expected range of the external ceramic dates.

To my mind the main significance of these dates of the sealed Cupule #1 is two-fold: First, since only Late Woodland to Late Mississippian ceramics were found during data recovery excavations and no

diagnostic material from any other period, the cupule must be associated with these components and probably date to the Late Woodland Swift Creek, as this was the time that the midden started to accumulate.

Secondly, the continual use of the area until almost early historic times implies some connection with the ethnographic record, and is therefore subject to valid ethnographic interpretation. Among other artifacts, the midden that covers Cupule #1 contains quartz crystals. The contexts of these crystals and the placement of the midden can be accounted for by the ethnography of the Southeastern United States Indians. The significance of the cupules, associated artifacts, and placement on the landscape will be addressed in a future ESRARA article.

A Cupmarked Boulder, Lawrence Co. Ohio

According to Charles Rau (1881), the cupped dark gray sandstone boulder, shown below, was found a mile and a half above Ironton, Lawrence County, Ohio by H. H. Hill in May 1874, near the banks of the Ohio River. Dr. Hill removed the half ton boulder by steamboat and presented it to the Cincinnati Society of Natural History.

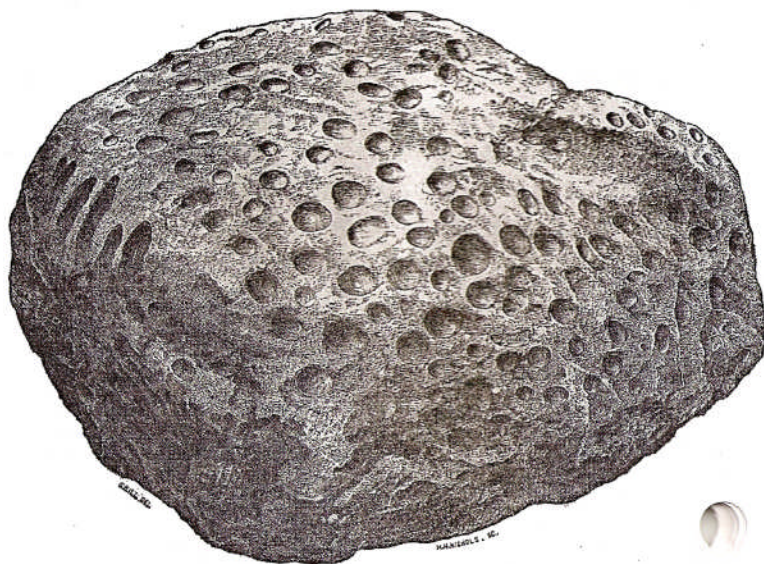


FIG. 42.—Cupped sandstone block, discovered in Lawrence County, Ohio; now in Cincinnati.

Petroform-Mound Linkage in East Central Wisconsin

by

Jack Steinbring and Herman Bender

Over the past few years, the common associations between petroforms and earthen mounds reported by such early recorders as T. H. Lewis are being confirmed in Wisconsin. The central problem in the search for these associations has been the large scale destruction by land clearing and cultivation in the late 19th Century. In a few cases, however, remnants of these "associations," whether contemporary or not, is coming to light (Callahan 1999:3 Ruebelmann 1988:191). Extensive work in Fond du Lac and Dodge counties beginning in the 1980's, provided strong hints to empirically defensible associations, often strengthened by archaeoastronomy (Bender 1992:2). More recently, in Marquette County, containing dense and highly visible ethnohistoric populations of Winnebago and Menominee, several cases have become known. While extremely rich in both prehistoric and ethnohistoric culture, Marquette County, very central and influenced by the Fox River, has had sparse archaeological attention; and that somewhat specialized.

In 1998 and 1999, three major petroform concentrations were identified in the Towns of Mekan and Shields in the northern part of Marquette County. The first to be located lies just inside the Town of Mekan line where it intersects with Eagle Road (Fig's. 1 and 3). It was spotted from the road during an unusually warm early spring - exposed by melting, and not yet

obscured by vegetation. It consists of a line of boulders laid out on an approximate north orientation, with piling near its north end, and at least two linear extensions. It is some 50 feet in length, with the extensions about 15 feet long (oriented east-west). The boulders vary in size from about 10" in diameter to quite large specimens up to 24" in diameter and

weighing perhaps a half ton each. Most of these boulders are singly spaced. They occur 100 feet from the closest cleared land and are in an oak-hickory grove, with trees well over 100 years old. There are no other boulders in the area. While the feature is clearly a structured petroform, its significance is intensified by the presence of a newly discovered (1999) effigy mound 1 1/2 miles west. It is very similar to a Waupaca County petroform recorded by Dr. Jeff Behm, P. J. Schoebel, and Hugh Mays in Sept 1990.

The effigy mound, again discovered in the early spring, is a serpent mound 100 yards long with the bends consistent with the major solar orientations (mid-

summer sunrise, mid-winter sunrise, and the corresponding sunsets). A bush road crosses it, and its eastern end may have been damaged by dredging a small creek. An "official" snowmobile trail crossed it during the 1999-2000 winter.

Less than two miles to the northwest, at the crest of a considerable prominence lie two very large and complex petroforms. again containing both lines and piling. They are about 100 feet apart, in dense forest.

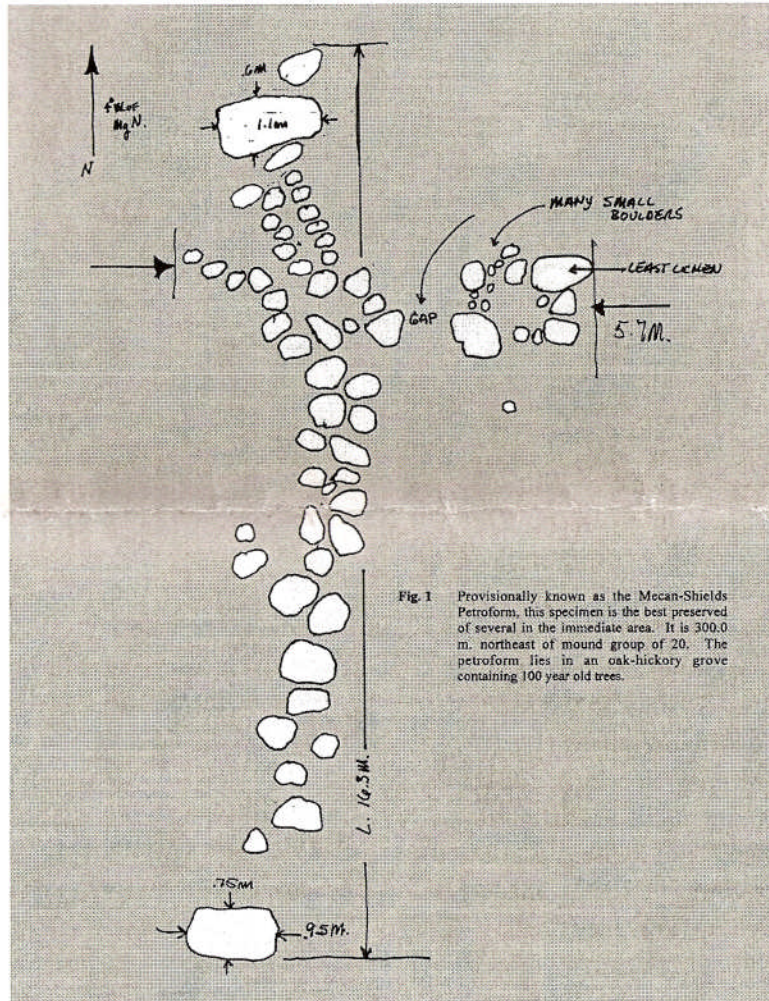


Fig. 1 Provisionally known as the Mekan-Shields Petroform, this specimen is the best preserved of several in the immediate area. It is 300.0 m. northeast of mound group of 20. The petroform lies in an oak-hickory grove containing 100 year old trees.

Underbrush has been removed for the purpose of mapping, but this is not complete. The features are on land owned by the Wisconsin Department of Natural Resources.

The overall cluster of these features is within the Mecan River drainage, a significant regional tributary of the Fox River, suggesting that they may be ceremonial sites purposely sited to be remote from the intensity of domestic life along the Fox.

There is another attribute of most of these sites, identified earlier in Fond du Lac County. This is the extensive aboriginal use of prominences for ceremonial purposes (Steinbring 2000:4). These

prominences serve also as markers in cross country travel, one being visible to the next, a commonplace practice in early historic times. Known trails follow this pattern and free flowing springs are commonly located below the prominences along these routes. Such is the case for the current findings in Marquette County and the rest of east central Wisconsin.

At least one petroglyph site may also figure in this pattern. A greatly eroded, solidly pecked petroglyph at the summit of Observatory Hill (the highest point in Marquette County) was discovered in 1999. This specimen exhibits minute pecking, and most resembles those identified within early Archaic iconic traditions. An intermediate hill, also of exceptional prominence contains aboriginal (and white) graves. A line from the petroform site passes exactly through it to bisect the summit of Observatory Hill. The Observatory Hill petroglyph is similar to one reported from Washington State Park in Missouri (Allan 2000:9).

Evidence is growing rapidly that this correspondence of mounds, petroforms, trails, and other ceremonial or ritual features, has probably been ignored because petroforms are the most fragile and susceptible to removal, and because associated

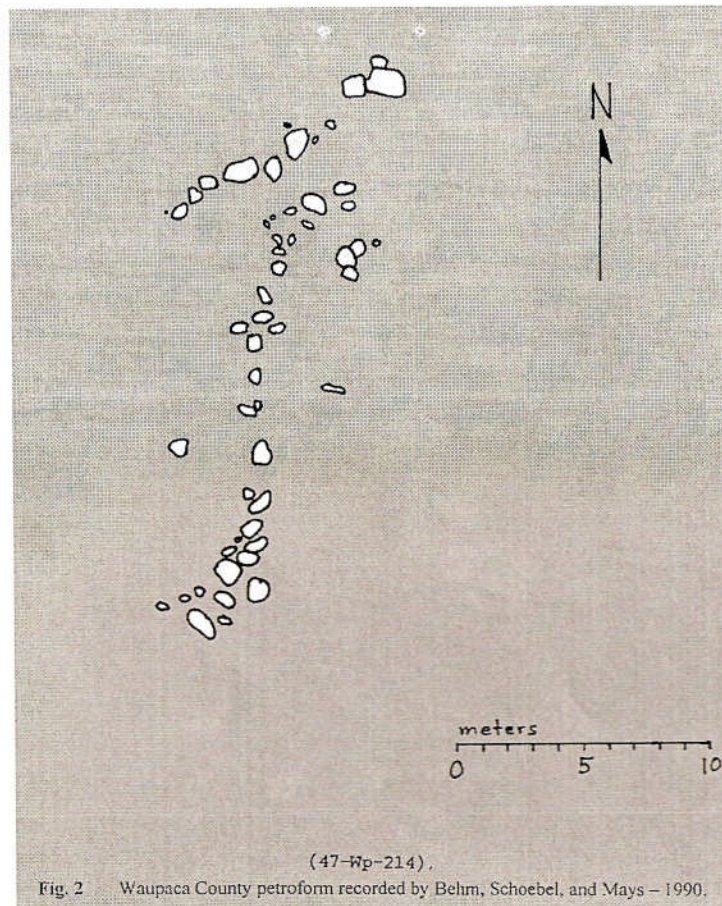


Fig. 2 Waupaca County petroform recorded by Behm, Schoebel, and Mays - 1990. (47-Wp-214)

mounds have been destroyed by cultivation (Behm 1990:107). There is a potential in this slowly emerging pattern of a very large scale and sophisticated system of cultural exploitation. It is uniquely suited to the archaeology of landscape.

Allan, Jean

1999 Review: *The Petroglyphs and Pictographs of Missouri* by Carol Diaz-Granados and James R. Duncan, in *ESRARA Newsletter*, Vol. 4, No. 3, p. 9.

Behm, J.

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of the Midwest." *Rock Art Quarterly*, Vol. 3-4, pp. 107-112, Winnipeg.

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1992 Geophysical Survey and Investigation of a Petroform Site in Fond du Lac County, Wisconsin, *Rock Art Quarterly*, Vol. 3, pp. 2-10, Winnipeg.

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1999 The Cupmarked Boulders of Blood Run, Iowa, *Upper Midwest Rock Art Papers*, Minneapolis.

Ruebeman, G.

1988 "The Henry Smith Site: An Avonlea Bison Procurement and Ceremonial Complex in Northern Montana," in *Avonlea Yesterday and Today: Archaeology and Prehistory*, edited by L. Davis, pp. 191-202, Saskatchewan Archaeological Society, Saskatoon.

Steinbring, J.

2000 "The Rock Art of Wisconsin," *American Indian Rock Art*, Vol. 24 (in press).

A full color version of this article can be found at the UMRARA website: www.tcinternet.net/users/cbailey.

Jeffers Petroglyphs Historic Site Interpretive Programs

By Tom Sanders, Site Manager

The Jeffers Petroglyphs site contains over 2000 petroglyphs carved on a Sioux quartzite outcrop in the midst of 80 acres of native and reconstructed prairie. Because a culture's past belongs to itself, American Indian elders guide the interpretation of the meaning of the carvings at this site and the culture that made them. They are the first speakers, but other voices are heard. Since this site has a largely Eurocentric audience, academic archaeological and geological viewpoints illustrate the chronology of the chain of events told here. The archaeological record gives us some of the material culture of various people who lived in the area for thousands of years. Botany explains the relationships between those caught in the intricate web of prairie life. The American Indian and Euro-American historic record supplies some details of the relationship of American Indians, buffalo, and prairie. Most important of all, the knowledge taught here is that the Jeffers Petroglyphs Historic Site is a living sacred site and must be respected and protected.

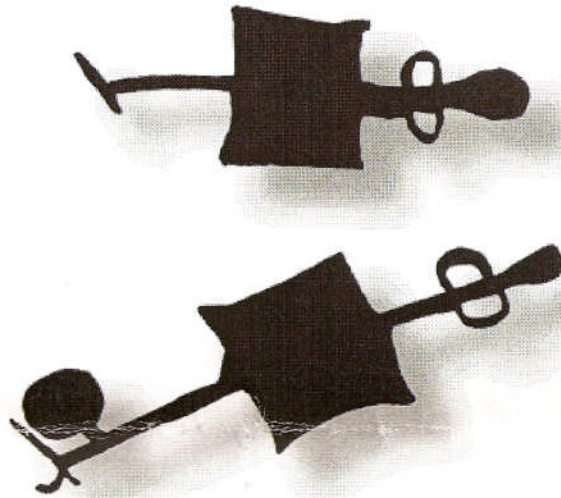
On the polished face of the rock outcropping at this site are petroglyphs or engravings that record thousands of years of human interaction with a spiritual world. Many of these carvings represent the prayers of people seeking spiritual guidance. They are signs given to spiritual leaders. They sought help in healing sickness, acquiring food and maintaining social relationships. These carvings also record stories, parables, and historic events. Several different communities of American Indians made them over a long period of time. The writing on the rock at this site documents the perseverance of people on the prairie for thousands of years. Most importantly, these engravings tell us that people survived on the prairie because of their deep understanding and intimate relationship with their physical world.

We do not know the names of the earliest tribes that inhabited what is now southwest Minnesota. However, according to American Indian and Euro-American histories during the last four hundred years, Ottoe, Iowa, Arapaho, Cheyenne and Dakota peoples lived in this area. After the 1862 war, most of the Dakota, the last American Indian inhabitants of southwest Minnesota were driven west. Before they left, some of their leaders prayed for guidance at the

site that later became the Jeffers Petroglyphs Historic Site. In the late nineteenth century, the dispersed Dakotas came back to Minnesota and settled in communities such as the Upper Sioux community at Granite Falls, the Lower Sioux community at Morton, the Shakopee community at Prior Lake and Prairie Island community at Welch. Sometime in the next century, the Dakota began to secretly visit Jeffers at night for prayer because Federal law forbade them to practice

their ceremonies until 1978.

In the 1960s, local residents recognized the cultural and environmental value of the site. They cleared it of fieldstones and refuse, identified and recorded the carvings and plant life, and urged the Minnesota Historical Society to acquire the site. In 1966, the Society purchased the site with the hope of providing knowledge of, and appreciation for, the history of the rock carvings, the environment in which they are found, and of the people who made them. Today American Indians visit and worship at this sacred site. Many of those people whose ancestors are known to have lived in this area, the Ottoe, Iowa, Arapaho, Cheyenne and Dakota peoples come to pray here. Elders from these tribes along with archaeologists, rock carving conservators, botanists, and Minnesota Historical Society staff guide the interpretation and preservation of the Jeffers Petroglyphs Historic Site.



Atlatl glyphs with bannerstones and finger loops, Jeffers

The Cupmarked Boulders of Blood Run, Iowa

by Kevin L. Callahan

Introduction

Cupmarked boulders have been reported in many areas of North America, including the eastern United States (Rau 1881). Ethnohistoric information suggests that some cupmarked rock art was created: (a) during periods of mourning, (b) following vision quests, (c) by couples seeking to enhance fertility, and (d) near the time of births (Parkman 1995). Examination of the cupmarked boulders and nearby burial mounds at Blood Run, Iowa and a review of various ethnohistoric sources suggests that their primary social function may have been as "death stones" to mark each new death or burial. Such sacred stones were not considered inanimate objects, but were the occasional dwelling place of spirits, and may have had related functions as a place for contacting the spirit world, vision questing, and as "baby rocks" for couples wishing to conceive. There were several symbolic, religious, and practical medicinal uses for the white powder containing kaolin which resulted from the production of cupmarks on weathered granite boulders.

Why make cupmarks on a granite boulder?

Fine white clay or kaolin comes from the weathering of granite. The fine white clay powder (like talcum powder) that resulted from making a cupmark on a weathered granite boulder was probably considered both a medicine and a symbolic item with protective supernatural "power." Similar associations are not unknown to European cultures. Charles Rau wrote that in France, "the sick and impotent" grind holes in sacred stones "and drink the pulverized matter" to cure fever and renew "the vital strength" (Rau 1881:88-89). Kaolin and pectin are still the active ingredients in Kaopectate which is sold by modern drugstores for the treatment of intestinal problems. High quality clay powder provides an absorbent material, useful as an internal medicine and

as an external absorbent drying agent for weeping wounds such as result from nettles. Kaolin is probably better known to archaeologists as the fine white clay used to make porcelain ceramics and to make 17th and 18th century smoking pipes.

In North America, clay had many interesting uses and symbolic associations. Clay-based face paint was used daily by Dakota women and more fair skinned children to protect the face and body from sun and wind (Standing Bear 1978). Clay also may have helped with insects and insect bites. Luther Standing Bear described his Lakota grandmother, who was anticipating the birth of a child, baking red earth clay and pounding it into a fine powder to mix with buffalo fat. This rendered it into a creamy paste which "served as a cleanser and also a protector to the tender skin of the child. Then [his] grandmother . . . gathered the driest of buffalo chips and ground them between stones to a powder as fine and soft as talcum. This powder was a purifier, and soothing to an irritated skin" (Standing Bear 1978:118).

The heat-activated "blue earth" of Minnesota is a green colored clay that turns blue following application to the face of a Dakota dancer. "Mine Soto" in Dakota means "whitish water," and according to Mary Eastman (1849) this was a reference to the white clay in the Minnesota River from which the state took its name.

Many Plains Indian tribes were known to visit a special sacred well in Kansas. Clay and paint were sometimes mixed with the sacred water from the well to make body paint (Gatschet 1891:68). This use may have provided protection from the sun and insects but also would have probably had symbolic and protective associations since paint had supernatural power (Rajnovich 1994).

The Omaha put clay on the head and face and wore very little clothing during a vision quest



(LaFlesche 1889:3). White clay gives a ghostlike appearance.

All of the surfaces of the Blood Run boulder have cupmarks, including the vertical surfaces, so the cupmarks were not made to hold something. These cupmarks were not a functional mortar and pestle for grinding seeds, grinding acorns, cracking nuts or mixing paint. Although the powder might have been used as an earth pigment, the cupmark was probably not the mixing pestle - at least on those vertical surfaces. The action and sound of repeatedly striking the same spot could have been a ritual or trance enhancing activity during a birth or death vision quest, prayer, or sacrifice.

Was rock art production related to marking or recording deaths in any Plains Indian cultures?

In the Omaha ethnography of Francis La Flesche, *Jour. Amer. Folklore* vol.II, No.4, pp.10-11 there is a reference to the production of figurative rock art for men who died of wounds.

"There are a variety of beliefs concerning the immediate action of the spirit upon its withdrawal from the body. Some think that the soul at once starts upon its journey to the spirit land; others that it hovers about the grave as if reluctant to depart . . .

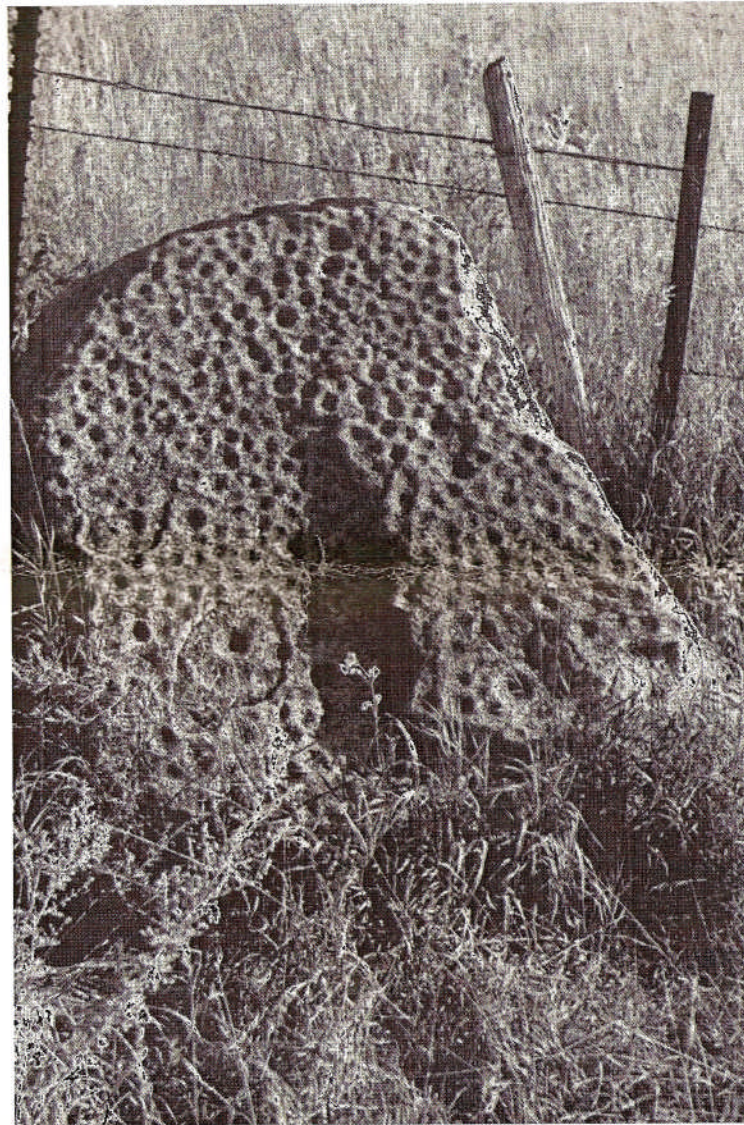
There is a belief in the [Omaha] tribe that before the spirits finally depart from men who died of wounds or their results, they float toward a cliff overhanging the Missouri, not far from the present Santee [Dakota] Agency, in Nebraska, and cut upon the rocks a picture showing forth their manner of death. A line in the picture indicates the spot where the disease or wound was

located which caused the death. After this record is complete, the spirit flies off to the land of the hereafter. It is said that these pictures are easily recognized by the relatives and friends of the deceased. This place is known as . . . Where the spirits make pictures of themselves (La Flesche cited in Dorsey 1894:420).

I presume this rock art was produced by relatives or shamen at night.

What does the ethnography in the Far West indicate about their pitted boulders?

According to Breck Parkman (1995:8-9), the Pomo and Shasta ethnographic accounts equate cupmarks or cupules with fertility and weather control, hence they are sometimes referred to as "baby rocks" and "rain rocks." In Pomo society the powder resulting from cupmark production was sought after by couples wishing to have a baby that otherwise were facing sterility and childlessness (Parkman 1995:8). There is some ethnographic and archaeological data to suggest that cupules were used to mark each new death or burial. This may explain the large number of cupmarks on the Blood Run boulders since there are so many burial mounds on the plateau just above them. In California cupmarked boulders used to mark



A cupmarked boulder at Blood Run, Iowa

each new death are called "death stones" and in some cases these boulders also made a ringing sound when struck.

A detailed report of this site, with color photographs and additional ethnohistoric sources, may be found at <http://www.geocities.com/Athens/Acropolis/5579/bloodrun.html>

Parkers Landing Petroglyphs, Northwestern Pennsylvania

Kenneth Burkett and Edward Kaufman are currently resurveying the Parkers Landing Petroglyphs (36CL1). This site was first recorded and reported by James Swauger and is particularly well known for the antlered mythological animal which he used on the cover of his 1974 publication "Rock art of the Upper Ohio." Drought conditions throughout the upper Allegheny River basin in 1998 and 1999 caused the river to become abnormally shallow revealing figures not previously noted. Additional work at this site has now increased the number of recorded prehistoric figures from the original 16 identified by Swauger to more than 70, which include representations of fish, birds, reptiles, insects, mammals and humans, along with various footprints and abstract groupings. Even though this site is inundated by the river approximately nine months of each year, it is one of the most intact and least defaced petroglyph sites in Pennsylvania. The goal of the resurvey is to create an updated publication, prepare and submit a formal national register nomination and, with the cooperation of the Landowner and Clarion County Historical Society, develop and implement a site protection/preservation plan.

Gottschall Rockshelter in Wisconsin seeking Volunteers by Grace Rajnovich

Excavations at the Gottschall Rockshelter in southwestern Wisconsin will run from May 21 to July 28. Bob Salzer of Beloit College, director of the project, is seeking volunteers to excavate and/or work in the lab.

The rockshelter has a series of pictograph panels at least one of which dates between A.D. 900-1000. It is related to the Ho-Chunk Legend of Red Horn. The rockshelter also has well stratified sediments nearly six meters deep. Some of these are man-made dirt layers relating to an as yet unknown ritual. This year, crews will be excavating the sediments underneath the paintings.

For information call Bob Salzer at 608-362-8812 or email salzerbj@beloit.edu.

Write to Bob at Beloit College, 700 College St., Beloit WI 53511.

Effigy Mounds, Iowa

Lori Stanley will be helping to organize another American Indian Heritage Festival at Effigy Mound Iowa this summer. The dates are Friday evening and Saturday, June 9 and 10. There will **not** be a day-long forum of speakers this year, but there will be demonstrators all day Saturday and dance/musical performances Friday evening, Saturday afternoon, and Saturday evening. Anyone interested in attending should call the Monument later this spring for more information. The festival could be cancelled by National Park Service budget cuts so be sure to check. The number for the Monument is (319) 873-3491. Last year's festival had a number of knowledgeable Native American speakers some of whom were visiting from out of state. Many well known archaeologists also attended. Several Native American groups that previously resided near Effigy Mounds moved to other states during the historic period. Lance Foster, the festival's co-moderator, is an Ioway who lives in Santa Fe where he works for the NPS. Lance has masters' degrees in both anthropology (arch.) and landscape architecture. For further information contact the Monument or Lori A. Stanley, Department of Sociology, Anthropology & Social Work, Luther College, 700 College Drive, Decorah, Iowa 52101. Tel.: (319) 387-1283 (office), (319) 387-1107 (fax).

April SAA Conference in Philadelphia schedules 3 rock art sessions

The annual Society for American Archaeology (SAA) conference will be held from April 5-9 at the Philadelphia Marriot Hotel.

Three rock art sessions have been scheduled to be held Thursday morning, and Saturday morning and afternoon.

A partial list of presenters includes: C. Chippendale, W. Davis, F. D'Errico, D. Lewis-Williams, A. Rosenfeld, A. Solomon, P. Schaafsma, P. Tacon, D. Whitley, M. Conkey, C. Gamble, I. Hodder, R. Layton, R. Edging, D. Gillette, E. Hardy, A. Quinlan, A. Stone, K. Callahan, M. Martz, C. Merrell, J. Norder, M. Sklar, and A. Woody. Session titles include: "Paleoart 2000: Taking Stock and Envisioning the Future," "Analysis of Rock Art," and "From Monuments to Rock Art: New studies on the archaeology of symbol and cognition."

Arkansas' First Rock Art Conservation Project & Rock Art Documentation Workshop

by Ben Swadley, Director, Plantation Agriculture Museum & Arkansas Archeological Society Member.

Arkansas' first professional effort to manage a rock art site will be completed within two years from July 1st, 1999 thanks to a generous grant from the Natural & Cultural Resources Council (NCRC) to Arkansas State Parks. The target site is Rockhouse Cave (3CN20) at Petit Jean State Park near Morrilton, Arkansas.

The project goal is to conserve the site and manage it for visitation so that the reoccurrence and frequency of vandalism will be far less likely in the future. The project will have several phases beginning with a five-day rock art documentation workshop to be held May 15-19, 2000. Linda Olson of Minot State University in North Dakota has been selected to teach the workshop.

Arkansas state parks is seeking to make contact with individuals who are interested in participating in the workshop and will agree to assist with the documentation of Rockhouse Cave as well as other rock art sites (contact information below). Space will be limited. The workshop and some accommodations will be free except for incidental costs such as food. The second phase will be to document Rockhouse Cave and its graffiti in preparation for graffiti reduction and conservation procedures. Those who were trained at the workshop, plus volunteers, will accomplish this task.

Claire Dean of Dean & Associates Conservation Services in Portland, Oregon and John Griswold of Griswold Conservation Associates in Beverly Hills, California will perform conservation work and graffiti reduction. Dean offered a treatment proposal for Rockhouse Cave's restoration and management in April 1998.

Volunteers who are interested in assisting with the conservation phase of the project will be needed to assist with graffiti reduction. A few individuals will be trained and organized to respond to a limited and defined range of future vandalism incidents. As part of the project, the parking area and trail to Rockhouse Cave will be improved. The trail work will include a trail or path on the shelter floor to reduce airborne dust and preserve archeological deposits. Interpretive signs will be added at various points. The signs will include historical information as well as visitor etiquette for rock art site visitation.

Arkansas is one of the few remaining frontiers for rock art research and Arkansas State Parks will be leading the way with the help of the Arkansas Archeological Society and Survey. Parties interested in participating in the rock art documentation workshop, the graffiti reduction effort, or both, should contact Ben Swadley, Director, Plantation Agriculture Museum, P.O. Box 87, Scott, AR 72142. The telephone is (501) 961-1409 and email is swadley@aristotle.net.

Recent Rock Art Research in the Northern Driftless Area of the Upper Mississippi Valley

by Robert "Ernie" Boszhardt

The unglaciated Driftless Area centered in southwestern Wisconsin has thousands of exposures of limestone/dolomite and sandstone, and hundreds of rockshelters. This region contains more rock art than any other area of the Upper Midwest, with well over 100 sites recorded. Surveys continue to find new sites each year. Portions of the Driftless Area are also active Karst terrains, with many limestone caves and sink holes. However, these tend to be damp and none are known to have been occupied in prehistory.

Recently, however, two dry sandstone caves have been discovered that extend several hundred feet. Both contain black (charcoal?) drawings, many of which are beyond natural light in the "Dark Zone." Arnold Cave contains over 100 individual pictographs on at least six panels in three chambers. One panel depicts a spring hunting scene in which pregnant deer or elk are being shot by bow hunters. This composition is beneath a horizontal fault line above which are sky symbols such as birds, thereby rendering a dual world system of earth and sky.

Support from a State Historical Society of Wisconsin Survey and Planning grant, has allowed mapping and initial recordation of the art through a workshop directed by Jannie Loubser of New South Associates, and "Ernie" Boszhardt of the Mississippi Valley Archaeology Center. Exceptional preservation is indicated by a number of birch bark torches and the sole of a hide moccasin found on the surface of the floor.

An AMS date obtained from pigment is ca. 1200 B.P.. This date corresponds with the age of bow hunting in this region and three diagnostic ceramic sherds thus far recovered. These suggest the pictographs are affiliated with the early Effigy Mound Culture. This Spring, a gate will be constructed to restrict access, and recordation will be completed.

Ron Dorn Cleared of Misconduct by both National Science Foundation (NSF) and Arizona State University (ASU)

According to the Oct. 29, 1999 issue of *Science* Ronald Dorn, a geoscientist at Arizona State University known for his work with rock varnish dating, has been cleared of any misconduct by the National Science Foundation and Arizona State University. According to the *Science* article: "This month ASU and NSF cleared Dorn. A faculty panel established by ASU concluded that 'the evidence did not support allegations that Dorn added coal or charcoal to rock varnish samples' and that studies showed the materials occurred naturally" (*Science* vol. 286:883-5).

According to the article, Dorn has filed suit against several people. The complaint indicates their remarks "clearly implied professional misconduct" and "seriously damaged" his ability to win grants.

Making ESRARA Public [www.public.asu.edu/~rexweeks/ Eastern_States_Rock_Art_Re.htm](http://www.public.asu.edu/~rexweeks/Eastern_States_Rock_Art_Re.htm)

by Rex Weeks

We *must* make ESRARA known to the public. If we are to grow and make difference, then more people need to know about ESRARA. That means making ESRARA known, not only to those interested in rock art, but also those who have never heard of such things as petroglyphs and pictographs. The ESRARA Web is an excellent forum for education. Public education is where it must begin, especially in the realm of mass communication.

The ESRARA Web offers a variety of features useful to students and teachers. These features include an annotated bibliography, links, ethics, and information about planning field trips. Under Selected books is an annotated bibliography of books that deal with rock art generally and, more specifically, with the eastern United States. These books have been selected for their availability, pertinent information, and scope. This information could be useful to a student writing a report, or a teacher developing a thematic lesson plan. The study of rock art can easily fit into lessons on archaeology, history, geography, sociology, or art. To make this valuable resource useful across a curriculum, we must take the ESRARA Web to the public.

Another helpful feature of the ESRARA Web is its catalog of links. There are many other sites on the World Wide Web that deal with rock art in the eastern U.S. The ESRARA Web provides links to them. The Links page is a great starting point to view examples of rock art sites in the East and to read about them. It also contains a list of links on specific topics of interest to students, teachers, and researchers including on-line journals, book distributors, sample lesson plans, and discussion groups.

Field trips are also an important part of the learning experience. The Ethics page offers ten general recommendations for planning *responsible* field trips. Responsible field trips endeavor to preserve the past for future generations to study and enjoy. Many states in the East have developed rock art sites for public access. The ESRARA Web maintains a list of these sites for each state. Under Sites Developed for Public Access, one can find site descriptions, access, restrictions, and contact information. Most of these sites are protected, well-managed, and handicapped accessible. Such sites offer a wonderful opportunity for students and teachers to appreciate the cultural resources that surround them. Appreciation builds character and increases membership in our mission.

You can help make ESRARA public by doing three things. First, you can recommend the ESRARA Web to teachers and students. Second, you can volunteer to give a short talk on rock art in your state at local school. Use ESRARA Web pages for hand-outs. Third, you can e-mail the web managers of your favorite sites and ask them to make a link to ESRARA. Tell them what the ESRARA Web has to offer and include our address (URL).

Over the holidays, the ESRARA Web was registered with a number of popular search engines on the Internet. Search engines will guide people to our web site, but they also rely on popularity. Popularity depends on us.



Membership Application
EASTERN STATES
ROCK ART RESEARCH ASSOCIATION
30th Member of the International Federation of Rock Art Organizations

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Area of interest/specialization: _____

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