VII.

Recording Rock Art Sites
Introduction

Rock art sites have been reported in Wisconsin since the late 1870s. As of 1995, over 100 sites had been recorded in the state. Most of these sites have been identified through systematic survey begun in 1985. Over the past 10 years, rock art identification and documentation has become a primary focus in state-funded research.

Documentation has two purposes: to record the sites for posterity and to provide a baseline data set for each site. In the event that an attempt to destroy or remove rock art figures occurs at the site, the initial documentation can be used to assess the new damage. Prosecution of the perpetrator may depend on the accuracy of the initial documentation.

Until the 1970s, photography and plaster casting were the primary forms of documentation. In most sites, chalking carved figures before photographing was used to clearly accentuate the faint markings. Evidence of chalk and plaster still remain from these early experiments in rock art documentation.

Rock art sites are more fragile than any other type of archeological site. They are fully exposed and have been for hundreds, and in some cases thousands, of years. For this reason, extreme care must be exercised. These guidelines, which reflect the lessons learned from past experimentation, outline the techniques most likely to preserve the remaining figures and panels.

Definitions

Rock art site identification and documentation concentrates on prehistoric and historic Native American designs. While it is important to record all historic and modern Euro-American graffiti present on rock art panels, survey has not focused on locating graffiti. Three types of Native American rock art figures have been found in the state. Photographs and drawings of petroglyphs and pictographs can be found in “Wisconsin Rock Art” (Birmingham and Green 1986).

Petroglyphs. Petroglyphs are carved, pecked, or incised figures, the most numerous type of figure recorded. These figures are found primarily in caves and rockshelters and on bluff faces. Most of these figures are found on vertical faces, although a few have been recorded on cave floors. One site in Dodge County is composed of figures on exposed surface bedrock unconnected with a cave or shelter. Petroglyphs are primarily outline figures. Some contain interior designs such as heart lines. A large majority of petroglyphs are geometric in design (i.e., line combinations, circles, or diamonds) rather than plant, animal, or human figures.
Pictographs. Pictographs are painted figures found on vertical faces and ceilings in caves and rockshelters and on bluff faces. Pictographs often contain more detail and interior design than petroglyphs. Red, orange, blue, and black paint have been recorded. Petroglyphs and pictographs sometime occur in the same sites, and a few rare figures contain both carved and painted designs.

Petroforms. Petroforms are boulder outline figures located on unsheltered soil surfaces and constructed of portable glacial erratics. These figures are very large and are usually in wide open locations, similar to mound sites; like mound sites, they may have been placed with aerial view (spiritual in nature) in mind. In many instances, these figures are found in a field or pasture littered with glacial debris. For this reason, petroform locations are problematic and great care must be taken to determine the past and present use of the area.

Survey Methodology

Petroglyphs and Pictographs

Locating rock art is, in most cases, as simple as locating exposed rock faces and large boulders. The best time to survey for rock art is in the late fall, winter, and early spring, when foliage is absent and snow accentuates exposed rock. In caves and shelters where light is dim, a high-intensity flashlight placed at an angle to the wall reveals shallow petroglyphs and faint pictographs. Many sites in the state occur on very fragile and exfoliated surfaces. It is essential that physical contact with the figures be kept at an absolute minimum for several reasons:

- Human oils, sweat, and exhalation have been proven to destroy pictographs, as evidenced by the deterioration of well-known sites in France.
- Many walls containing pictographs and petroglyphs are composed of poorly cemented sandstones. At least two sites have experienced natural damage since the sites have been recorded. Even more sites have experienced human damage. It is essential to determine the content and fragility of the base rock before contact.
- Due to weathering and graffiti, many figures are already faint or distorted. Additional contact may further damage the figures.
- Rock art sites are considered sacred sites by many Native American tribes. Extensive physical contact may be considered lack of respect. Communication with local tribes and those known to have inhabited the area historically is an essential part of rock art site survey, documentation, and report writing.

Many caves, rockshelters, and bluff faces contain growths of lichen, worts, and moss. In most cases, figures will be visible through the growths. Growth removal is strongly discouraged at this time, until future research can provide a nondamaging method. If the growth is removed physically, it is likely that portions of the rock art figures will be removed as well. Chemical removal may disrupt future dating or paint analysis and may discolor pictographs. It is not advisable to use any chemical that is not 100% reversible. Experimentation on walls free from rock art must be done before application on rock art figures themselves. Chemicals that may work in other areas of the country may not work the same way in Wisconsin. At this time only distilled water sprayed in a fine mist is permissible on Wisconsin rock art sites. In all cases, growths will reestablish themselves, further damaging the rock art figures.

Petroforms

Survey in areas undisturbed by agriculture, development, and other ground-altering activities may identify boulder alignments. It is important to carefully investigate and map every boulder within and surrounding the potential alignment to determine whether the figure is indeed ancient or a result of natural or modern human construction. Research into past and present land use is essential. Investigating, in place, the soil lines and lichen growth of each boulder in the alignment will reveal recent disturbance.
Subsurface Investigations

Many floors in caves and rockshelters, as well as ledges beneath bluff faces, contain soil levels. Since it is unlikely that these deposits have been disturbed by modern human activities, it is not recommended that shovel testing be done in these sites. The areas inside caves and rockshelters are very small, and shovel testing could compromise future excavations. If it is important to determine the extent of the deposits, a 1” to 3” geologic probe or a small 2” to 3” trowel-dug hole would do the least damage. Any subsurface investigations should be backfilled and any disturbance marked on the plan view/floor map. Backdirt from any animal disturbances should be screened through 1/4” hardware cloth. If shovel testing is needed at a petroform site, it should be conducted outside the figure outlines.

Landscape Survey

During project planning for rock art site survey, survey of the surrounding lowland or landscape should be considered. These areas may produce habitation or activity areas. Future investigations may link the rock art sites to other sites in the area.

Recording Rock Art Sites

Field notes, maps, photographs, and drawings are required in rock art site documentation. Monitoring sites recorded in the past has proved the importance of comprehensive site records. Advanced technology, such as computer-enhanced photographs, photogrammetry, and large-format cameras may be used to complement the methods described in these guidelines. However, basic site and figure documentation must be conducted initially. The guidelines that follow provide a complete and economically viable way to document sites and the rock art figures within them.

Not all caves, rockshelters, bluff faces, and exposed bedrock contain pictographs and petroglyphs, just as not all undisturbed ground surfaces contain petroforms. Gathering information on location and surrounding environment is as important to identifying high-priority areas containing rock art as it is with habitation or other activity sites. The following checklist is recommended as minimum documentation for recording rock art sites. A form checklist is attached as a memory guide.

It is important to allow enough time to conduct all mapping, photography, drawing, and note-taking when planning a documentation project. Recording is very time-consuming. It is also important to remember that information gathered on the initial visit can be used to assess natural and human damage visible in subsequent visits. It may be necessary to revisit the site to confirm details that appear in photos but were not visible to the eye.

1. **Site name.** Rock art sites should not be named after the landowner or a nearby named feature (such as a stream, coulee, lake, or road). These types of names could point looters directly to the site. The name selected should not diminish or inadvertently show lack of respect for the sacredness of the site to Native American tribes.

2. **Date recorded.**

3. **Names of surveyors and recorder.**

4. **Legal location.** The site should be plotted on a USGS topographic quadrangle map, 7.5’ series, with township, range, section, quarter-section (at least three), and UTM coordinates recorded.

5. **Elevation.** Three elevations must be recorded:
   a) Elevation above sea level.
   b) Elevation of the site from the bottom-land, if applicable.
   c) Elevation above ground surface for every panel or figure. This last elevation will indicate whether further examination will be necessary to determine whether the ground surface has been altered either naturally or mechanically since the rock art was placed on the wall. If rock art is low to the present ground surface, it is possible that the prehistoric ground surface is covered by fill—additional figures may exist below the present floor. If rock art is high on the wall, it is possible
that soil has been removed from the floor since the rock art was placed on the wall. It is also possible that a type of scaffolding may have been used.

6. **Landowner.** It is essential that landowner permission and, if possible, participation be gained. Future site preservation depends on landowner cooperation. In some cases, the landowner is absent from the land, has rented the land, or has allowed other parties access for activities such as hunting. Contact with other such parties is also important.

7. **Landowner attitude.** Rock art sites are rare, unique, and irreplaceable. These sites are also increasingly subject to vandalism, either inadvertently through graffiti or as part of the illegal antiquities market. It is important to know whether the landowners are willing to help protect the site. It is also important to know how the landowners feel about additional investigations or if they are uncomfortable with further visits to the site.

8. **Accessibility.** Both modern and easiest pre-modern access to the site should be recorded. Most sites are located in remote areas, and access from the nearest modern road may not have been the route taken by prehistoric Native Americans. It is also important to note whether the site is easily accessed. Some sites may have been chosen for their position on the landscape rather than ease of accessibility.

9. **Closest water source.** The name and distance of the closest water source should be recorded.

10. **Unusual or outstanding geologic/topographic feature.** The landscape visible from the site should be described. It is possible that the area was chosen for visual, acoustic, or other sensory features. Photographs of the site should include scenic views.

11. **Dimensions of the site.**
    
    Caves and rockshelters require the following:
    • the direction of the opening
    • the direction of bluff face in which the cave or shelter is found
    • the length (range) and width (range) of the cave or shelter interior
    • the height (range) from floor to ceiling
    Bluff faces require the following:
    • the direction of the bluff face
    • the length (range) and width (range) of the ledge below the rock art
    • a note of any protective overhang and the height between the bottom ledge and the overhang, if possible

Petroform sites or petroglyphs/pictographs on a horizontal rock outcrop require:
• the acreage/size of the site
• if the site is located on a discrete landform, a description of that landform

12. **Type and condition of rock faces and boulders.** It is important to record
• the type of rock on which the figures are placed (i.e., sandstone, limestone, granite) and the conditions of the surface (smooth, slightly rough, very rough, irregular, fractured)
• whether the rock is stable, poorly cemented, exfoliating, wet, or dry, and whether mineral deposits are present
• whether the surface was prepared before the rock art was applied
• the presence of lichen, worts, or moss and how extensive the growths are
• any historic or modern graffiti, disturbances to the dirt floor, or roof markings such as an area blackened by fire (natural hematite stains and colored lichens, especially black, may resemble areas blackened by fire)
• for petroform sites, the type and size of the boulders along with any lichen, wort, or moss growth

13. **Subsurface investigations.** Results of any subsurface investigation should be recorded, including the type of investigation done (i.e., shovel testing, probing, screening, animal disturbance) and the exact location of any investigation or animal disturbance on the plan view/floor map.
14. **Rock art.** The rock art and its location within the site should be briefly described, including number of figures, how many petroglyphs and pictographs, number of partial figures, number of complete figures, and total size of decorated surface. Information on each figure should be included, such as size, type, and design. An opinion as to the degree of preservation (excellent, good, fair, poor) also should be included.

15. **Photography.** Records should be kept on the number of shots taken and type of film used (slide, B/W, infrared, ultraviolet), with a list of subjects. Any videorecording should be noted.

16. **Maps and drawings.** The number of maps and drawings done should be recorded, with a list of the subjects.

**Mapping the Site**

A general map of the site is essential. For a cave, rockshelter, or bluff face, a plan view/floor map should be prepared. This map should include the dimensions of the site, the location of any disturbance on the floor, and the location of the figures on the surrounding walls. Too often this is not done, making relocation of the figures difficult or impossible. It is important to remember that future visits to the site may find that figures have been destroyed by natural or human disturbance; as much information as possible should be recorded on the initial visit.

It is also essential to map the walls that contain rock art figures, keeping the figures in context. A scale drawing of each wall with figures scaled to size, orientation, and location is strongly recommended. Natural (e.g., exfoliation) and human (e.g., graffiti) disturbance to the walls should be included.

For petroform sites, all the rocks in a designated area should be mapped, not just those that constitute the boulder outline. Rock densities in the area, as well as places where rock appears to have been cleared, are important data.

**Recording Rock Art Figures**

Current rock art recording techniques have benefited from the experimental technology used in the past. There are a number of techniques that can be employed, as well as a number of techniques that cannot be employed, on rock art in Wisconsin.

Photography and drawings complement each other. Each technique has the potential to reveal information on rock art figures that is not revealed by the other. For example, lighting associated with different photographic settings can reveal faint portions of figures not visible to the eye alone. Drawings that include measurements of carvings can add to the growing data on tools and techniques that may aid in dating the panels. It is essential that both photography and measured drawings be undertaken in documentation projects.

**Still Photography**

Extensive photography of the site, walls, panels, individual figures, and boulder outlines is essential. Black-and-white and color slide photography is imperative for all rock art figures. Additional infrared and ultraviolet (if possible) photography is recommended for pictographs. For best results, the first shot of each black-and-white roll should include a gray scale. For best results in color match for slides, a chromatic scale should be the first shot. Both scales can be purchased in most photo stores. It is important to tell the photo processing lab to process shots using the scale at the beginning of the roll. At least one shot of each subject should include a measuring device such as a meter stick or ruler.

Petroglyphs and pictographs should be photographed from a position directly in front of the figure, not from an angle. Since rock art figures can be difficult to photograph, experimentation with meter settings, depth of field, and external lighting is required. A light cloud cover is ideal for photographing exposed figures. It is important that an experienced photographer (a professional, if possible) produce the photographs. In caves and dark shelters, flash photography using 400 ASI film is recommended for the sharpest pictures. A white umbrella or sheet of white paper provides back light for better shots. Frames should be overlapped for stereographic viewing, keeping the
distance constant for scale. It may be helpful to include a directional arrow for “north” in all photos and a notation for “up” on vertical faces where there may be some doubt as to the direction. Additional photographic techniques are described in Wainwright (1991).

Faint petroglyphs and pictographs can be darkened by spraying them with a light mist of distilled water. This is the only accepted method of preparation permitted for Wisconsin rock art. Chalking, color enhancement, re-carving, growth removal, and brushing are not permitted.

**Video Photography**

Video photography, in addition to but not in place of still photography, is highly recommended. Panning the video camera is an ideal way to document figures in context. Video can also be shot successfully in dark places. Again, a color scale and a meter stick/ruler should be used in panel and figure shots.

**Measured Line Drawings**

Panels, figures, and petroforms should also be drawn to scale. In some areas of the state, mylar sheets, tissue paper, rice paper, or tracing paper laid over the petroglyph and pictograph can be used. However, only those persons experienced in rock art recording and very knowledgeable of bedrock conditions at the site should attempt this recording method. If there is any possibility that physical contact will damage the figure, tracing methods cannot be used. Caution should be used when tracing on any form of plastic, as reflected sunlight may obscure or distort the figure.

Rubbings are not permitted on any sites in Wisconsin. Plaster casting as a method to produce full-scale replicas has been found to produce damage over time and is not permitted. Plaster casting leaves a residue that has obscured faint figures in at least one site. The residue is difficult or impossible to remove without damaging the site. Casting also destroys evidence of panel preparation. Clay and plastic casting are not permitted for much the same reasons.

Measured or scale drawings should include whole-panel drawings to document the figures in context. For petroglyphs, drawings should include notations on depth and size of carvings and a cross section of the carved line. This last measurement is instrumental in identifying the shape of the tool used to carve the petroglyph. Care must be taken when drawing overlapping figures. If possible, notations should be made indicating the oldest and youngest figure. Figures should be drawn using their original orientations and their relationships to other figures in the panel. Notations on type of figure (petroglyph or pictograph) should be made. The floor and ceiling should also be drawn into each panel to aid in locating the panel in the future. Munsell color notations for pictographs are optional but recommended. Modern and historic graffiti and natural damage should also be incorporated into the drawing. When the figure drawings are finalized, all photos should be scrutinized to be sure that all faint portions of the figure or panel have been recorded.

**Drawings from Slides**

In some site situations, rock art figures are beyond the reach of the investigator or in such poor condition that any physical contact would be detrimental. In those cases, measured drawings in the field may not be the best technique, and tracings would not be permitted. Instead, color slides with rulers or meter sticks can be projected on a drawing board and adjusted to exact size or scaled to whatever size is appropriate for the drawings. Drawings done by slide projection can then be taken back to the site and compared with the original for proper detail. This method can also be used in cases of inclement weather or poor lighting.

**Site Interpretation**

Rock art site interpretation in Wisconsin is in its infancy. Interpretation is currently being conducted on a site-by-site basis. Some inter-
pretation has also begun for selected motifs and themes. Dating and cultural affiliation determinations are difficult for most sites in the state. Few petroglyph and pictograph sites have been excavated, and many sites lack floor deposits. Sites with multiple occupations present difficulties in interpreting the rock art on the walls. Time indicators such as the bow and arrow and the horse are present at a few sites. None of the recorded petroform sites has been excavated.

Current rock art interpretation efforts include research into Native American customs and culture. As stated above, many Native American tribes consider rock art sites sacred places. Insight and assistance from local tribes and those who inhabited an area historically is essential to interpreting rock art sites. It is also essential that research into the literature of Native American culture, custom, and mythology be a part of any site report. References on the attached list are examples of studies that should be consulted when writing reports on rock art sites.

Report Preparation

Reports on rock art sites should be prepared in the format developed for other archeological sites considered in these guidelines. Rock art site reports should also include the results of research into Native American culture, custom, and mythology.

Rock Art Site Preservation

No preservation techniques have been tried as yet on rock art sites in Wisconsin. Studies into permanent lichen removal, graffiti removal, repair of site damage, and reversible chemical preservatives are a few of the topics for future research. Any chemical preservative must be tried on rock faces without rock art and studied for a number of years before application on a rock art site. Rock art removal is not permitted as a preservation technique. Attempts at removal would most likely cause the panel to crack, exfoliate, or fall before the block could be removed.

Until physical preservation techniques are developed, archival preservation will be used to provide data for researchers on Wisconsin rock art. The Office of the State Archaeologist is the official repository of rock art archives. Copies of reports and information gathered on rock art sites must be submitted to this office. Copies of photographs, slides, and videos as well as maps, drawings, and notes should be submitted with the reports.

Site stewardship programs with landowner cooperation, public education opportunities, and site management plans for long-term preservation are encouraged. Some sites may be preserved by the construction of a barrier such as a fence or platform to discourage graffiti. Rock art exposed to the elements may be protected by the construction of an overhang to minimize erosion.

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