

# La Pintura

2007 Conference Program  
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The Official Newsletter of the American Rock Art Research Association  
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[www.arara.org](http://www.arara.org)

**AMERICAN ROCK ART RESEARCH ASSOCIATION**

**34TH ANNUAL MEETING**  
**JUNE 29 - JULY 2, 2007**  
**BILLINGS, MONTANA**

**KEYNOTE SPEAKER:**  
**DR. LAWRENCE LOENDORF**

**PAPERS AND POSTERS ON**  
**CURRENT ROCK ART RESEARCH**  
**FIELD TRIPS IN REGION**  
**ROCK ART RELATED VENDORS**  
**INFORMATION AT: [WWW.ARARA.ORG](http://WWW.ARARA.ORG)**

Poster: C. Merrell Photo: M. Taylor

## 2007 ARARA Conference Program & Abstracts

# Welcome to Billings

Mavis Greer, ARARA President

**WELCOME** to southeastern Montana and the 34th meeting of the American Rock Art Research Association. This is the first gathering of the organization on the northwestern plains, where biographic rock art, the precursor to robe and ledger art, mixes with petroglyphs and pictographs of earlier peoples. Billings lies within the Yellowstone River drainage, and in this area today, large and small ranches intermingle with state and federally administered lands, all of which act as caretakers of the rock art. South of Billings the Crow and Northern Cheyenne reservations are stewards of past traditions of the Plains and provide many educational outlets for teaching new generations of all ethnic affiliations about their cultures. Activities of the region, including many associated with the tribes, are available to enhance your visit to Billings.

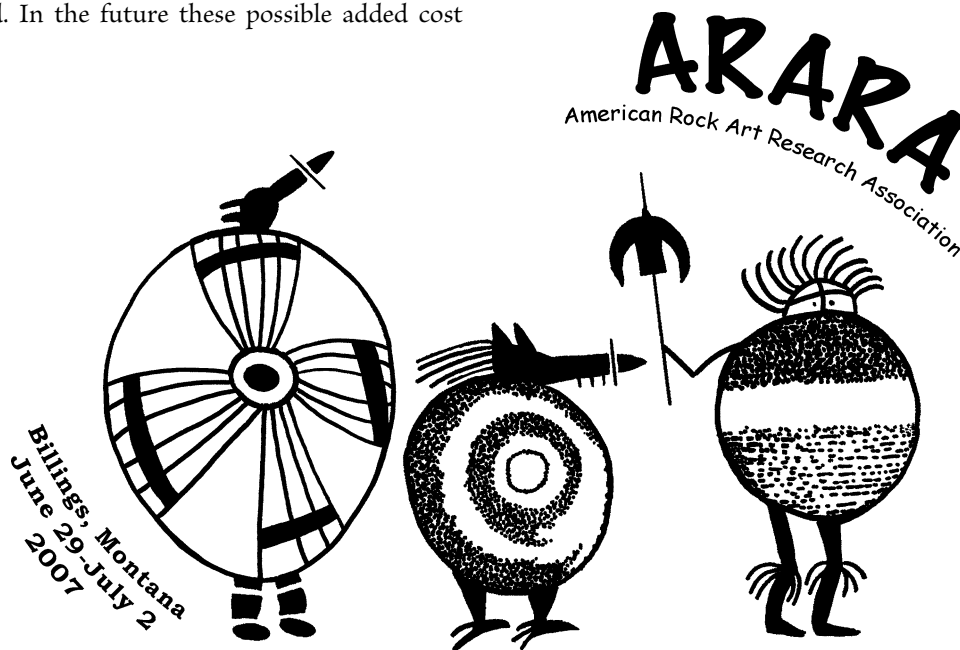
From surveys we have conducted with ARARA members, we know that field trips are one of the most, if not *the* most, important aspects of the conference for the majority of our attendees. Our field trip leaders have had an especially challenging year finding and arranging trips to regional rock art sites. Much time and attention was paid to your comments regarding trip selection, and the system was scrutinized and refined several times in order to arrive at a more equitable way of assigning trips. Additionally, this year for the first time ever we were required to obtain a permit to visit sites on Bureau of Land Management lands. This added additional work to the procedure, and it could have added additional expense if our request for fee waivers had not been approved. In the future these possible added cost

considerations will need to be addressed on a conference-by-conference basis. We hope you enjoy both the organized trips and the sites you can visit on your own, such as Pictograph Cave south of town.

As has been the case for the past several years, our Conference Planning Committee was headed by Donna Gillette. Once again, many people pulled together to assist in the production of this conference. These people are listed with their main contribution on the acknowledgement page in this program (page 12), posted on the web site, and on display at the registration table at the conference. The acknowledgements are superimposed on the conference poster designed by Carolynne Merrell.

ARARA is always in need of volunteers, and if you have talents or desires to work with any of the committees, please come forward. Either let one of our Board members or Committee Chairpersons know of your interest or send an email to [ARARABoard@gmail.com](mailto:ARARABoard@gmail.com). We hope you have a great time in Montana and enjoy the camaraderie and information available at the conference.

The conference poster photo and the conference logo are shield figures from the Bear Gulch site, which is characteristic of northwestern Plains pre-contact rock art.



## ARARA 2007 Conference Program

Crowne Plaza Hotel, Billings, Montana

### Thursday, June 28, 2007

- 8:00 a.m. – 5:00 p.m. **Board Meeting** — Crowne Plaza Hotel, Avalanche Room, 3rd Floor
- 8:00 p.m. **Future Conference Planning Committee** — Crowne Plaza Hotel, room to be announced

### Friday, June 29, 2007

- 8:00 a.m. – 5:00 p.m. **Field Trips** — Meeting Locations to be Announced by Field Trip Coordinators
- 2:00 – 6:00 p.m. **Registration** – Crowne Plaza Hotel, Foyer in front of Wood Granite Ballroom, 3rd Floor
- 7:00 – 9:00 p.m. **Reception — Pompeys Pillar National Monument.** Entertainment—Tour of rock art on Pillar (guided by Linda Olson, recorder of this site)

*Pompeys Pillar is located about 25 miles east of Billings. Take I-24 East to Exit 23. There are direction signs to the monument from the Interstate. Maps available at the Crowne Plaza Hotel.*

*Conference Registration available.*

### Saturday Morning, June 30, 2007

- 7:00 – 8:00 a.m. **Vendor and Poster Set Up** — Crowne Plaza Hotel, Whitetail Ballroom, 3rd Floor  
*Posters will be set up at the beginning of the meeting and left up until Sunday afternoon. Authors will be at posters at least from 8:00 to 8:30 a.m. Sunday morning.*
- 7:00 – 8:30 a.m. **Publication Committee Meeting** — Crowne Plaza Hotel, Garden Room of Lucky Diamond Restaurant, 20th Floor
- 8:00 a.m. – 5:00 p.m. **Registration** — Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor
- 8:00 – 8:30 a.m. **Vendor Room Open**, Whitetail Ballroom, 3rd Floor (also open during breaks and lunch)
- 8:30 – 8:45 a.m. **Welcome** — Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor  
*Mavis Greer, ARARA President*
- 8:45 – 8:55 a.m. **Announcements** — Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor  
*Donna Gillette*

### Session: Keynote Speaker

Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor

*Introduction by Mavis Greer*

- 8:55 – 10:00 a.m. **Dr. Lawrence L. Loendorf: Rock Art and Dirt Archaeology**
- 10:00 – 10:20 a.m. **Break** — Foyer in front of Wood Granite Ballroom, 3rd Floor  
*Vendor Room Open, Whitetail Ballroom, 3rd Floor*

**Session: Montana Rock Art, Bear Gulch**  
**Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor**  
*James Keyser, Moderator*

- 10:20 - 10:40 a.m.**      **Mavis Greer and John Greer:** Bear Gulch Montana, History of Rock Art Studies at the Site (Contributed Paper)
- 10:40 – 11:00 a.m.**      **George Poetschat and James D. Keyser:** Bear Gulch: 50 Years Later (Contributed Paper)
- 11:00 – 11:20 a.m.**      **Melissa M. Ray:** Shield Bearing Warriors of Bear Gulch: Statistical Relationships and Associations (Contributed Paper)
- 11:20 – 11:40 a.m.**      **David Kaiser and James D. Keyser:** Symbolic Superimposition: Overlapping Shield Bearing Warriors at Bear Gulch (Contributed Paper)
- 11:40 a.m. – Noon**      **James D. Keyser:** “These Curious Appendages”: Medicine Bundles in Bear Gulch Rock Art (Contributed Paper)
- 12:00 – 1:30 p.m.**      **Lunch**  
*Education Committee Meeting — Garden Room of Lucky Diamond Restaurant, 20th Floor*  
*Vendors Open — Whitetail Ballroom, 3rd Floor*

**Saturday Afternoon, June 30, 2007**

**Session: Montana Rock Art**  
**Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor**  
*James Keyser, Moderator*

- 1:30 – 1:50 p.m.**      **Lisa Ripps and James D. Keyser:** Bear Gulch: Birds in Ceremonial Tradition Art (Contributed Paper)
- 1:50 – 2:05 p.m.**      **Melissa Greer and James Keyser:** The Women of Bear Gulch (Report)
- 2:05 – 2:25 p.m.**      **Angelo Eugenio Fossati:** The Shields and the Warriors: Similarities and Differences Between Bear Gulch (Montana) and Valcamonica-Valtellina (Italy) Rock Art (Contributed Paper)
- 2:25 – 2:40 p.m.**      **Timothy P. McCleary:** BaaÑ-ichiichiwaau: Crow Indian Narratives of Rock Art (Contributed Paper)
- 2:40 – 3:00 p.m.**      **Break – Vendor Room Open**

**Session: Research Approaches to Rock Art**  
**Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor**  
*Eveyn Billo, Moderator*

- 3:00 – 3:20 p.m.**      **Marie R. Richards and Grant S. McCall:** Exploring Spatial Variation in Rock Art Site Composition at Ndedema Gorge, South Africa (Contributed Paper)
- 3:20 – 3:40 p.m.**      **Donna Gillette:** Placing Cultural Markings in an Archaeological Context (Contributed Paper)
- 3:40 – 4:00 p.m.**      **Ken Hedges:** Invisible Landscapes (Contributed Paper)

- 4:00 – 4:20 p.m. **Janet Lever-Wood:** “Images of Power/Words of Faith” (Contributed Paper)
- 4:20 – 5:30 p.m. **Vendors Open** — Whitetail Ballroom, 3rd Floor
- 4:30 – 5:30 p.m. **Book Signing, Keynote Speaker, Dr. Lawrence Loendorf** — Whitetail Ballroom, 3rd Floor
- 4:30 – 5:30 p.m. **Conservation Committee Meeting** — Crowne Plaza Hotel, room to be announced
- 6:00 – 8:00 p.m. **AUCTION** — No Host Bar, and ARARA Sponsored Snacks  
*Dell Crandall, Auctioneer* — Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor

**Sunday Morning, July 1, 2007**

- 7:00 – 8:00 a.m. **Website Committee Meeting** — Garden Room of Lucky Diamond Restaurant, 20th Floor
- 8:00 a.m. – Noon **Registration** — Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor
- 8:00 – 8:30 **Poster Session** — Crowne Plaza Hotel, Whitetail Ballroom, 3rd Floor  
**Poster Presenters:**  
**Carolynne Merrell and James D. Keyser:** “Getting It Right”: Accurate Recording of Plains Biographic Art  
**Barbara Bane:** In the Interests of Justice: Rock Art Vandalism and a Successful ARPA Prosecution in Chaco Canyon, New Mexico  
**Erica Olsen:** An Archivist Looks at Rock Art  
**Ryan Ward Swanson:** Petroglyphs & Ginger-Snaps: Rock Art on the Briggs & Ellis Ranch in Southeastern Montana
- 8:30 – 10:00 a.m. **BUSINESS MEETING** — Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor
- 10:00 – 10:20 a.m. **Break**  
*Vendors Open* — Whitetail Ballroom, 3rd Floor
- Session: Research Approaches to Rock Art**  
**Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor**  
*Lloyd Anderson, Moderator*
- 10:20 – 10:40 **Alan Garfinkel and Alexander K. Rogers:** Paradigm Shifts, Rock Art Studies, and the “Coso Sheep Cult” of Eastern California (Contributed Paper)
- 10:40 – 11:00 a.m. **Michael W. Taylor, James D. Keyser, and Phillip Cash Cash:** The Roles of Women in Columbia Plateau Rock Art (Contributed Paper)
- 11:00 – 11:20 a.m. **David Sucec:** Intimate Relations: Associations of Animal, Bird, Snake, and Plant Images with Spirit Figures in Barrier Canyon Style Rock Art (Contributed Paper)
- 11:20 – 11:40 a.m. **Kendra Rodgers and Lawrence Loendorf:** Bear Dance: A Ceremonial Rock Art Site in Southeast Colorado (Contributed Paper)

**11:40 – 12:00 p.m.** **Lynda McNeil:** Symbolic Recurrence in Rock Art: Evolutionary Psychologists on Memory-enhancing Strategies (Contributed Paper)

**12:00 – 1:30 p.m.**

**Lunch**

*Vendors Open — Whitetail Ballroom, 3rd Floor*

*2008 Anniversary Committee Meeting — Garden Room of Lucky Diamond Restaurant, 20th Floor*

*Presenter's Meeting — Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor, at Podium, hosted by Publication Committee*

**Sunday Afternoon, July 1, 2007**

**Session: Technology and Rock Art**

**Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor**

*Alice Tratebas, Moderator*

**1:30 – 1:50 p.m.**

**Mark Mudge and Carla Schroer:** Simple, Low-cost Reflection Transformation Imaging Documentation Techniques for Rock Art (Contributed Paper)

**1:50 – 2:10 p.m.**

**Tommy Noble and Neffra Matthews:** A new Look at Capturing Detailed 3D Images of Rock Art: Advances in Close-range Photogrammetry (Contributed Paper)

**2:10 – 2:30 p.m.**

**Neffra Matthews, Tom Noble, Mike Bies, Larry Loendorf, Danny Walker, Mark Mudge, and Carolyn McClellan:** Photographing the Past, Protecting the Future: Using Close-range Photogrammetry to Capture 3D Images of The Legend Rock Petroglyph Site, Wyoming (Contributed Paper)

**2:30 – 2:50 p.m.**

**Jon Harman:** The Pictographs of Kachina Rockshelter (Contributed Paper)

**2:50 – 3:30 p.m.**

**Break**

*Vendors Open (closed after this break) — Whitetail Ballroom, 3rd Floor*

**Session: Various Research Approaches**

**Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor**

*Chris Gralapp, Moderator*

**3:30 – 3:50 p.m.**

**E. Gene Riggs:** Cerros de Trincheras, Hillside Terraces and Rock Art (Contributed Paper)

**3:50 – 4:05 p.m.**

**Marvin W. Rowe:** River of a Thousand Lingas (Report)

**4:05 – 4:25 p.m.**

**Steven J. Waller:** Echo Spirits Who Paint Rocks: Memegwashio Dwell Within Echoing Rock Art Site EiGf-2 (Contributed Paper)

**5:30 – 6:30 p.m.**

**No Host Bar** — Crowne Plaza Hotel, Foyer outside Wood Granite Ballroom, 3rd Floor

**6:30 p.m.**

**BANQUET** — Crowne Plaza Hotel, Wood Granite Ballroom, 3rd Floor  
*Awards*

*Entertainment by TJ Casey, Cowboy Singer/Songwriter and Storyteller*

## Abstracts of Papers

Angelo Eugenio Fossati (Footsteps of Man Archaeological Cooperative Society— Catholic University, Milan, Institute of Archaeology, Italy) (Contributed Paper)

*The Shields and the Warriors: Similarities and Differences Between Bear Gulch (Montana) and Valcamonica-Valtellina (Italy) Rock Art*

The paper deals with the subject of the shield figures in two different areas in America and Europe: Bear Gulch (Montana) and Valcamonica-Valtellina (Italy) where thousands of shield bearing warriors are visible painted and /or engraved on the rocks. The author tries to find connections and similarities among the two rock art traditions, but also underlines the morphological and interpretational differences. In Valcamonica-Valtellina shields figures are quite important, because they have been used to construct the basis of the entire chronology of the Iron Age rock art tradition. Few other examples of shield warrior figures (sculptures, vessels or funerary paintings) from the Italian peninsula are brought to the attention of the readers.

Alan Garfinkel (California Department of Transportation) and Alexander K. Rogers (Archaeology Curator and Staff Archaeologist, Maturango Museum, Ridgecrest, California) (Contributed Paper)

*Paradigm Shifts, Rock Art Studies, and the “Coso Sheep Cult” of Eastern California*

One of the more spectacular expressions of North American rock art is found in the Coso Range of eastern California. These glyphs have played a prominent role in attempts to understand forager religious iconography. Heizer and Baumhoff (1962) concluded that Great Basin petroglyphs were intended to supernaturally increase success in hunting large game. Grant et al. (1968) concluded that Coso drawings bolstered the “hunting magic” hypothesis. This hypothesis has become increasingly marginalized by a prevailing view that most rock art is an expression of individual shamanism. Comparative ethnologic and contextual archaeological evidence supports the hunting magic hypothesis. [Previously presented at the 2007 meeting of the Society for California Archaeology]

Donna Gillette (UC Berkeley, California) (Contributed Paper)

*Placing Cultural Markings in an Archaeological Context*

Often rock art studies focus on the site, not taking into consideration the context of the setting. The paper presented here examines the PCN (Pecked Curvilinear Nucleated) tradition and asks how the pre-historic people were utilizing the landscape. It focuses on the artificial boundary created by the 5358 acre Hopland Research and Extension Center (HREC) in the Coastal Ranges of California. With three PCN sites on the property it provides a micro view of the land and the PCN tradition, and may hold some keys to understanding this tradition and provide a model for other areas where PCN boulders occur.

Mavis Greer (Greer Services, Wyoming) and John Greer (Greer Services, Wyoming) (Contributed Paper)

*Bear Gulch Montana, History of Rock Art Studies at the Site*

The pictographs and petroglyphs of Bear Gulch, located in the foothills ecotone north of the Snowy Mountains, have been known to rock art researchers in Montana for many years. The hundreds of figures include many variations of the well-known shield-bearing warrior motif, and visitors have focused particularly on that aspect. More recent intensive recording and study during the last few years has expanded attention to the many other kinds of figures, motifs, and subjects, and their relational and physical contexts along the extensive cliffs. The site, although unique in its size and complexity, is more characteristic of the plains than the mountainous areas of central Montana, and its subject matter fits well within the late Plains rock art chronology.

Melissa Greer (Longwood University, Virginia) and James D. Keyser (Oregon Archaeological Society) (Report)

*The Women of Bear Gulch*

The Bear Gulch site (24FR2), located just south of Lewiston, Montana, is a site dominated by the shield-bearing warrior motif. This locality was used by several local tribes as an important male vision quest area and is seemingly male dominated. However, included in the rock art of Bear Gulch are female motifs that are strikingly different from the hundreds of shield-bearing male warriors. These include a scene depicting childbirth, which is strangely covered in lightly incised shield-bearing warriors, multiple vulva-forms, and women captured in battle. We explore female-related rock art at Bear Gulch.

Jon Harman (www.DStretch.com) (Contributed Paper)

*The Pictographs of Kachina Rockshelter*

The Kachina Rockshelter in eastern Nevada contains beautiful pictographs attributed to the Fremont culture. The pictographs were carefully documented by Donald Tuohy in 1979. Today digital cameras and digital image enhancement are creating a revolution in rock art documentation. Pictographs that are nearly invisible to the naked eye can be made visible by enhancement. DStretch is a free image enhancement program specifically designed for rock art applications. At Kachina Rockshelter DStretch enhancement brings out figures entirely missed by Tuohy and shows subtle details that no drawing can capture.

Ken Hedges (San Diego Museum of Man) (Contributed Paper)

*Invisible Landscapes*

Current perceptions that rock art studies are dominated by shamanistic interpretation have led to increased attempts to point rock art research in directions more in keeping with mainstream archaeology. One approach is to explore interpretive implications of the landscape context of rock art by examining associations between settlement archaeology and rock art, and by documenting presumed domestic routines that took place in proximity to rock art. This paper builds on that premise by examining shamanistic interpretation vs. such ill-conceived concepts as the “neuropsychological model,” and by emphasizing that many types of relevant landscapes are invisible in the archaeological record.

David Kaiser (Oregon Archaeological Society) and James D. Keyser (Oregon Archaeological Society) (Contributed Paper)

*Symbolic Superimposition: Overlapping Shield Bearing Warriors at Bear Gulch*

Bear Gulch is known for its number of shield bearing warriors and their wide variety of associated regalia. Additionally, the site contains more superimposed shield warriors than are found in all other Plains rock art. Superimpositions occur in three types: Those that partially overlap (possibly by accident), those that are significantly overlapped (clearly deliberately), and those that are directly overlaid on a preexisting shield figure (and are thus conjoined with parts of the underlying figure). The latter two categories comprise most of the superimpositions at Bear Gulch, and demonstrate unequivocally that warrior artists ritually reused the site imagery, apparently to access the medicine power inherent in the earlier images.

James D. Keyser (Oregon Archaeological Society) (Contributed Paper)

*“These Curious Appendages”: Medicine Bundles in Bear Gulch Rock Art*

Animal skin bundles were a common item in Historic Plains Indian culture. Three types of personal Bundles were known including animal skin “flags” or bags, animal pelts worn over the shoulder, and smaller bird or animal skins tied in the hair. Rock art depictions of such bundles are extremely rare, except at the Bear Gulch site, where 17 examples were recorded in recent fieldwork. Of the Bear Gulch bundles, one example is freestanding but the other 16 are worn by shield bearing warriors.

Janet Lever-Wood (California) (Contributed Paper)

*Images of Power/Words of Faith*

Images of power exist in the rock art landscape. They are also found on the journey that brings one to a particular site. Lines of energy take on many forms. The places where they converge become significant. A recent re-visit to a site in SE Utah triggered a number of thoughts on the spiritual geography we at times enter. Related to previous papers involving the five senses, this presentation is more about synesthesia and time.

Neffra Matthews (US DOI, Bureau of Land Management, National Science and Technology Center), Tom Noble (US DOI, Bureau of Land Management, National Science and Technology Center), Mike Bies (Bureau of Land Management, Wyoming), Larry Loendorf (New Mexico State University), Danny Walker (State Archaeologist’s Office, Wyoming), Mark Mudge (Cultural Heritage Imaging, California), and Carolyn McClellan (Contributed Paper)

*Photographing the Past, Protecting the Future: Using Close-range Photogrammetry to Capture 3D Images of the Legend Rock Petroglyph Site, Wyoming*

Legend Rock Petroglyph Site, located near Meeteetse, Wyoming, contains major petroglyph panels on three sandstone cliffs. Ownership of the site is jointly held by a private landowner, Wyoming State Parks, and the Bureau of Land Management (BLM). Close-range photogrammetry has been adopted to provide a baseline to monitor the site for natural degradation and vandalism.



The BLM has developed a multi-phased approach for documenting the site in cooperation with Wyoming State Parks. The first phase is to create a spatially accurate photographic mosaic base map for each separate segment of the sandstone cliff. These base maps would be used in both a digital real world system such as GIS or as hard copy maps for field location, inventory, and documentation of rock art panels. These maps will have a resolution and positional accuracy of ~1cm. In addition, the digital photo mosaic can be used to provide visual context to more detailed 3-dimensional digital models of individual panels. The second phase provides detailed 3-dimensional modeling and imaging of individual petroglyph panels. These highly detailed digital re-creations of the individual panels provide a resolution and accuracy in the tenths of millimeters. The virtual models can be used to record the petroglyphs and to detect even very small changes to the rock art that may occur over time.

Timothy P. McCleary (Little Big Horn College, Montana) (Contributed Paper)

*Baa'ichiichiwaau: Crow Indian Narratives of Rock Art*

Rock art of the Yellowstone Valley is greatly valued by Crow Indians. Contemporary Crow people interpret rock art by drawing on their memories of what the symbols mean individually and then within the composite image. The marking devices that appear in rock art were the only forms of writing for historic Crow people. Even though there were a number of images an artist chose from to depict biographic or historic information, the meaning of the message was through its oral narration, its baa'ichiichiwaau, retelling, as Crow people term historical recitations. This paper will discuss some rock art baa'ichiichiwaau told today.

Carolynne Merrell (Archaeographics, Idaho) and James D. Keyser (Oregon Archaeological Society) (Poster)

*"Getting It Right": Accurate Recording of Plains Biographic Art*

Accurately recording and deciphering pictographs and petroglyphs is always a challenge for rock art researchers. It is most essential at Great Plains biographic rock art sites where crucial definitive details must be examined for accuracy. At these sites every nuance is evaluated for its possible meaning. Working with over a thousand elements at Bear Gulch, each tracing, note and photo had to be compared, evaluated, and re-evaluated based on details that may become evident at different times during the documentation process. Photos and tracings in hand, with hand lens and mirror, multiple pairs of eyes scrutinize the pictographs and incised petroglyphs to attempt an accurate identification of the elements where every detail has significance.

Lynda McNeil (University of Colorado, Boulder) (Contributed Paper)

*Symbolic Recurrence in Rock Art: Evolutionary Psychologists on Memory-enhancing Strategies*

An unresolved issue in rock art studies concerns how individuals living in social groups remember, preserve, and transmit core beliefs (myths) intergenerationally. This paper gives an overview of the most prevalent approaches in rock art studies to date that attempt to answer this question: theories involving human consciousness, Jungian archetypes, and altered states. In contrast to these theories, the paper will present cutting-edge research in Evolutionary Psychology on the memory-enhancing strategies that account for the recurrence of symbolic representations across millennia, using as an example climbing/standing bears depicted in rock art in distant cultural contexts. [This is a summary of completed research to be published in *The Journal of Cognition and Culture* (UK) in 2007.]

Mark Mudge (Cultural Heritage Imaging, California) and Carla Schroer (Cultural Heritage Imaging, California) (Contributed Paper)

*Simple, Low-cost Reflection Transformation Imaging Documentation Techniques for Rock Art*

We will demonstrate a set of new, simple, low-cost reflection information capture techniques for rock art. These techniques are easy to learn and may be used without the presence of a computer imaging technologist. The acquired data contains robust information about the rock art's 3D shape and surface properties. This information can build dynamic, interactive, Reflection Transformation Images (RTI) capable of mathematical enhancement and rendered in a variety of ways to disclose features that are difficult or impossible to see through direct physical examination. Through the use of newly developed tools, the captured 3D surface information permits automatic generation of drawings.

Tommy Noble (US DOI, Bureau of Land Management, National Science and Technology Center) and Neffra Matthews (US DOI, Bureau of Land Management, National Science and Technology Center) (Contributed Paper)

*a New Look at Capturing Detailed 3D Images of Rock Art: Advances in Close-range Photogrammetry*

Virtual Heritage is an emerging discipline that focuses on producing digital re-creations of historic and prehistoric resources. These full-color, 3D interactive re-creations provide an opportunity to view, study, interpret, and understand the past in ways not possible

from 2D images and flat maps. A basic component of this discipline is virtual reality, which uses geometric descriptions, based on empirically captured point clouds and an overlay of photographic textures. Advances in commercially available photogrammetry software, high resolution digital cameras, computers, and supporting image processing tools are now able to capture point clouds and registered textures with the quality, reliability, and authenticity necessary for scientific cultural heritage use. These techniques elevate the camera from simply a device for capturing images to a virtual surveying and data collection instrument. The skills needed to capture the necessary imagery are easily learned as is developing a level of proficiency in processing the data. Thus, these abilities expand the realm of successful 3D data acquisition and processing outside the limits of the photogrammetric professional.

Erica Olsen (Graduate student, Archives and Records Management Program, Western Washington University) (Poster)

*An Archivist Looks at Rock Art*

In my poster, I will propose a view of rock art as indigenous archives. Archaeologists and tribal representatives consider some rock art sites records of shaman's visions. Rock art helped the shaman remember his transactions with the spirit world. Such sites meet key archival criteria: they are the natural result of activity and the recorded memory thereof. An archival view of rock art expands our model of archives to include indigenous graphic records. My poster will present archival principles and demonstrate their applicability to rock art, using an interdisciplinary approach drawing on archival theory, rock art studies, and tribal perspectives.

George Poetschat (Oregon Archaeological Society) and James D. Keyser (Oregon Archaeological Society) (Contributed Paper)

*Bear Gulch: 50 Years Later*

The 2005 Project focused on recording the nearly pristine rock art images on the limestone cliffs of Bear Gulch, located on private land in central Montana. This site contains over 2200 images including 750 Shield Bearing Warriors. Butchered bison bones have also been found just below the valley surface. The 2007 Phase 2 Project involves use of Ground Penetrating Radar and test excavations, dating of charcoal pictographs, and recording similar rock art at nearby Atherton Canyon. Bear Gulch and Atherton Canyon contain a wealth of information that will undoubtedly lead to more specific studies about the prehistoric cultural use in this area of Montana.

Melissa M. Ray (University of Montana) (Contributed Paper)

*Shield Bearing Warriors of Bear Gulch: Statistical Relationships and Associations*

Is there an association of images and symbols inherent in prehistoric warrior rock art? I am seeking the possibility of a syntactical structured relationship between shield bearing warriors and their appendages through analysis of Bear Gulch Pictographs, located in central Montana. Association of symbols in this tradition holds the potential to reveal information about prehistoric warrior identity and places of power. Religion and warfare were integrated into many aspects of Plains Native American life and certainly influenced the production of rock art. What will statistical analysis reveal about the societies that left this rock art tradition?

Marie R. Richards (University of Iowa) and Grant S. McCall (Tulane University) (Contributed Paper)

*Exploring Spatial Variation in Rock Art Site Composition at Ndedema Gorge, South Africa*

This paper uses computer-based statistical and spatial analysis techniques to examine variation in the composition of rock art sites in the Ndedema Gorge, South Africa. We find clear patterning concerning the distribution of rock art on the landscape, and this patterning suggests three types of rock art sites: (1) Large concentrations of rock art at occupation centers, (2) large concentrations away from occupation centers, and (3) small, isolated rock art sites on riverside boulders and low-hanging rock shelters. We argue that this pattern offers important information concerning ritual use of the landscape and the social construction of religiously significant places.

E. Gene Riggs (Cochise College, Arizona) (Contributed Paper)

*Cerros de Trincheras, Hillside Terraces and Rock Art*

Rock art is often present at cerros de trincheras—hillside terrace sites. Four such sites will be examined, two in northwest Chihuahua, and one each in southeast Arizona and southwest New Mexico. The presence of rock art at a site does not imply connection to or association with the inhabitants who constructed the terraces. The makers of the rock art could have preceded, come later, been contemporaneous with, or been some of the trincheras-building people themselves. However, in certain cases the rock art elements, iconography, and style may indicate cultural affiliation with a specific prehistoric group or groups.

Lisa Ripps (Oregon Archaeological Society) and James D. Keyser (Oregon Archaeological Society) (Contributed Paper)

*Bear Gulch: Birds in Ceremonial Tradition Art*

Bear Gulch has more illustrated birds than any other Northern Plains rock art site. Of the 34 birds recorded in our 2005 fieldwork, we have identified members of five different orders and two therianthrope bird-human confections. Passerines are most common at the site, and include six corvids identified by various morphological traits. Sage Grouse and wading birds (cranes, herons) are also common, and ducks and raptors are each represented by three examples. Birds are drawn as shield heraldry four times, and another is a shield bearer's bird bundle, represented by the body tied in his hair and a beak work as his mask.

Kendra Rodgers (ICI Services, Fort Carson-DECAM) and Lawrence Loendorf (New Mexico State University) (Contributed Paper)

*Bear Dance: A Ceremonial Rock Art Site in Southeast Colorado*

The bear is a powerful figure with numerous roles among Native American groups. Constellations to puberty initiation rites are explained ethnographically as related to the bear and its actions. Bear veneration is linked to a wide-range of man's interactions or purposeful avoidance of bears. Bear Dance, a new site in Southeast Colorado, offers a complex panel hinting to the ceremonial ties of rock art, landscape, and lifeways with the bear. By using Caddoan ethnography it is possible to identify various aspects of Caddoan shamanism in the panel.

Marvin W. Rowe (Department of Chemistry, Texas A&M University, Qatar) (Contributed Paper)

*River of a Thousand Lingas*

About 15 km from Siem Riep, Cambodia, home of the world-renowned temple complex, Angkor Wat, lies a river in the mountains. For a stretch of approximately 100 meters, the river bottom is covered by about a thousand carvings of lingas (Hindu phallic symbols). In Hindu belief, water running over a linga blesses the water. This River of 1000 Lingas drops over a small waterfall before it flows out onto rice fields. In addition to lingas, there are additional carvings of Hindu deities. The river runs from about 16 meters deep down to a dry bed, depending on the season.

David Sucec (BCS Project, Utah) (Contributed Paper)

*Intimate Relations: Associations of Animal, Bird, Snake, and Plant Images with Spirit Figures in Barrier Canyon Style Rock Art*

At some Barrier Canyon style rock art sites, representations of quadrupeds, birds, snakes and plants are seen in close association with spirit figures. Whether bird, snake, or quadruped, they are seen hovering over the heads, off the shoulders, or flanking certain spirit figures. Some can also be seen moving toward and around spirit figures. In their apparent intimate association, these compositions differ significantly from the animal/anthropomorph compositions that are seen in other Utah rock art styles and exhibit a remarkable similarity to the images of some hunting/gathering cultures such as the Huichol and Inuit—with representations of shamans and associated zoomorphs identified as "spirit helpers."

Linea Sundstrom (Day Star Research, Wisconsin) (Contributed Paper)

*Buffalo Gals: Images of Women in Northern Great Plains Rock Art*

Rock art from the Black Hills and surrounding areas depicts women in several roles from hunting to seeking spiritual assistance to falling victim to enemy warriors. A careful study of rock art imagery, informed by ethnography and oral tradition, fills in many gaps in our knowledge of the activities and status of women in precontact days. An early style shows women assisting in communal game drives. Later rock art shows women in postures of prayer related to women's concerns such as fertility.

Ryan Ward Swanson (Washington State University) (Poster)

*Petroglyphs & Ginger-Snaps: Rock Art on the Briggs & Ellis Ranch in Southeastern Montana*

The Briggs & Ellis Ranch, near Custer, Montana, is a unique location to examine multiple styles and traditions of Northern Plains rock art. Located near the confluence of the Bighorn and Yellowstone Rivers, the sandstone bluffs on the ranch contain a variety of prehistoric petroglyphs that include examples of the Ceremonial and Biographic traditions. The author photographed and recorded many of these panels during annual visits to his paternal grandparents (the owners of the B&E Ranch) over the past 25 years.

Michael W. Taylor (Oregon Archaeological Society), James D. Keyser (Oregon Archaeological Society), and Phillip Cash Cash (Oregon Archaeological Society)

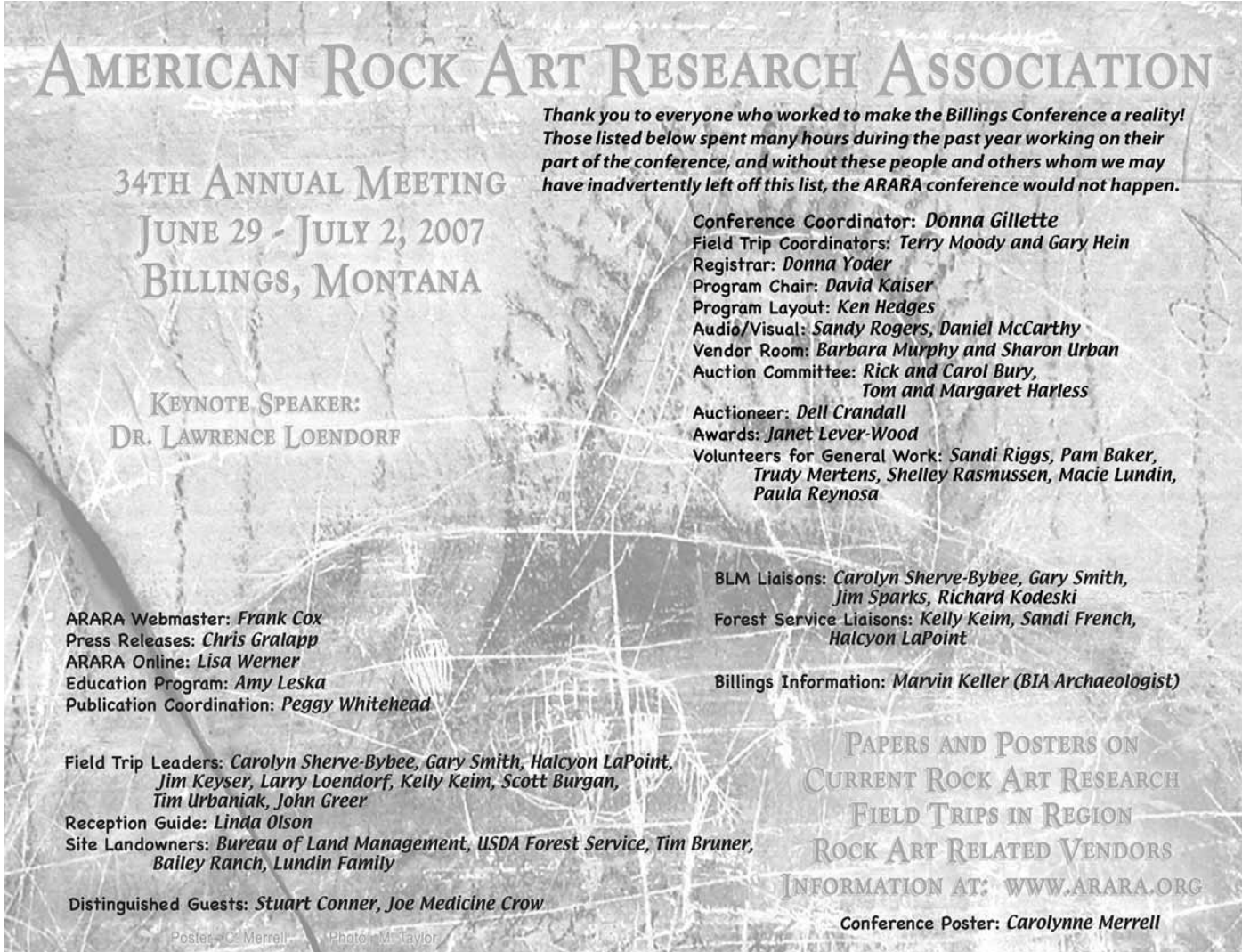
*The Roles of Women in Columbia Plateau Rock Art*

Although the Columbia Plateau region has long been known as an area where access to the supernatural is largely egalitarian, no one has ever carefully summarized the ethnography relating to women's vision questing and shamanism-and thus ultimately their role as makers and users of rock art. The authors conducted a detailed survey of Columbia Plateau ethnography and oral tradition both to document women's shamanistic practices and to find instances where women were known to (or were likely to) have produced rock art. The results support a basically egalitarian system, albeit with differences noted for various cultural groups within the region.

Steven J. Waller (Rock Art Acoustics, California) (Contributed Paper)

*Echo Spirits Who Paint Rocks: Memegwashio Dwell Within Echoing Rock Art Site EiGf-2*

The EiGf-2 rock art site in Quebec possesses notable acoustic properties, including distinct echoes (D. Arsenault). Algonkian ethnography describes this site as a dwelling place for Memegwashio: spirit creatures held responsible for producing both echoes and rock art. Acoustic experimentation became the traditional proof of the existence and residence of Memegwashio in rocky landscapes: parents advised children to shout; the children could then hear Memegwashio shout in reply (Vincent Bacon, F. Parcoret). Memegwashio seal their magic portals with hand prints of blood, showing where they touched the rock as they "closed the door" before disappearing into their cliff dwellings...



**AMERICAN ROCK ART RESEARCH ASSOCIATION**

**34TH ANNUAL MEETING**  
**JUNE 29 - JULY 2, 2007**  
**BILLINGS, MONTANA**

**KEYNOTE SPEAKER:**  
**DR. LAWRENCE LOENDORF**

**Thank you to everyone who worked to make the Billings Conference a reality! Those listed below spent many hours during the past year working on their part of the conference, and without these people and others whom we may have inadvertently left off this list, the ARARA conference would not happen.**

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**Field Trip Coordinators:** Terry Moody and Gary Hein  
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**PAPERS AND POSTERS ON CURRENT ROCK ART RESEARCH**  
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**ROCK ART RELATED VENDORS**  
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**Site Landowners:** Bureau of Land Management, USDA Forest Service, Tim Bruner, Bailey Ranch, Lundin Family

**Distinguished Guests:** Stuart Conner, Joe Medicine Crow

**Conference Poster:** Carolynne Merrell

Poster: C. Merrell Photo: M. Taylor

## The Editor's Corner

## The Next Generation

I GOT ANOTHER LOOK at the next generation of Mexican rock art researchers in late February (February 21-23 to be exact) during the 2nd Student Conference on Rock Paintings and Carvings. Once again, the conference was held at the National School of Anthropology and History (ENAH) in Mexico City, and the organizing committee invited me to participate as session commentator and participant in the closing 'debate.'

Following a tradition established at last year's conference (reported in *La Pintura*, March 2006), this year's sessions were dedicated to another Mexican rock art pioneer, Miguel Messmacher. Although Messmacher did not pursue a career in archaeology, his study of *La Pintada*, Sonora (1962), was the first thesis about a rock art site ever presented at the National School. It opened the door for the many theses which have followed—and are currently in progress. An appreciation of his work inaugurated the conference, presented by Martin Domínguez, who participated in ARARA's 2004 meeting in Casas Grandes, Chihuahua. Unfortunately, Messmacher was hospitalized and could not attend the event in person.

The conference featured 28 papers presented by students from the ENAH, the National University of Mexico, and other institutions. The papers covered a broad geographical area within Mexico (from Nuevo Leon to Oaxaca) with the greatest coverage being in central Mexico. In particular, several papers by students of Dra. Maria Areti Hers of the Institute of Aesthetics Research of the National University discussed rock art sites in the Valle del Mesquital, Hidalgo, using Otomí ethnohistoric and ethnographic information. Papers on rock art in Panama and Nicaragua also broadened the geographical focus beyond the Mexican borders, as did a paper on the Kokopelli figures of the U.S. Southwest presented by the head of the conference organizing committee, Daniel Herrera.

The U.S. Southwest and rock art were also prominent when my student hosts took me for a lunchtime walking tour of the circular "pyramid" of Cuicuilco which adjoins the school. Although I had been to the School many times, I never had a chance to see this famous archaeological site, now engulfed on all sides by modern urbanization.

Looking at the scene today, it's hard to imagine what it looked like in 1922 when Byron Cummings and his young student Emil Haury first saw it. They were the first professional archaeologists to dig the site, invited by Manuel Gamio, the "father" of Mexican archaeology. During the next five years, they uncovered the outline and major features of the "oldest pyramid in America" buried under the lava fields of El Pedregal.

Among their discoveries was a curious structure which Cummings dubbed the "kiva" because of its similarity to the ones he knew in the U.S. Southwest. Indeed, it may be the remote

ancestor of the Southwestern kivas. It's a small circular structure right beside the main pyramid, a miniature replica perhaps 2-3 m in diameter with massive lava boulder walls and a small doorway facing west. The kiva is one of Cuicuilco's unique features, and on the interior faces of its walls, red geometrical paintings are still clearly visible from above against the black basalt. They are the only rock art found at the site.

My student hosts recently re-surveyed these paintings as part of an ongoing research project under the direction of Arq'lgo. Mario Pérez Campa and gave me the latest interpretation. Their work confirmed and corrected earlier drawings of the figures as well as developing some interesting new insights.

Unfortunately, Cummings's original notes were lost, so key information about the archaeological context of the "kiva" and its possible use is missing. The students still have their interpretive doubts, but thanks to their efforts, the rock art evidence is secure. Except for the elaborate "Olmec" paintings in nearby Guerrero state, the Cuicuilco "kiva" paintings must be the earliest rock art in central Mexico in some kind of datable context.

Work at Cuicuilco continues. New discoveries could be literally just around the corner on the side of the structure still buried in basalt, but the next generation of Mexican archaeologists find themselves working on a different terrain. Apparently, due to public budgetary limitations, excavation is now called "rock removal" and is contracted to selected local dealers in lava stone building materials. A unique business opportunity indeed for the would-be archaeological investor!

—William Breen Murray, Editor

## Bluff Foundation Seeks Donations

**THE SOUTHWEST HERITAGE FOUNDATION** is asking for donations to purchase and preserve an ancient Pueblo village located within the town of Bluff, Utah. The site is located just west of the prominent landmark known as the Navajo Twin Rocks.

The Southwest Heritage Foundation is a non-profit organization based in Bluff. The land is being offered for sale to the foundation by the Utah School and Institutional Trust Lands Administration (SITLA). "Purchasing this parcel will benefit the entire community," said Bill Davis, president of the Southwest Heritage Foundation. "By preserving this valuable cultural site, we also preserve the surrounding 16 acres as undeveloped open space."

The village dates to the Pueblo I period, A.D. 700-900, and is one of the largest sites of its kind in the area. Origin of the ceramic type known as "Bluff Black-on-red," the site was first recorded by the Museum of Northern Arizona in the mid-1930s. "We think the site provides a perfect venue for educating the public about the value of our local cultural resources," said

—continued on page 12

## Bluff Foundation

Continued from page 13

Davis. Rare primroses bloom each spring along the seeps in the rocks. With a backdrop of colorful cliffs and a foreground of historic pioneer homes, these first foundations of Bluff remain largely intact, in an atmosphere of scenic solitude.

The Southwest Heritage Foundation has a respected track record for preserving local historic and prehistoric sites, including the Bluff Great House and the Bluff Pioneer Cemetery. Donations may be sent to P.O. Box 47, Bluff, UT 84512. More information is available by calling (435) 672-2272. For more information, contact Tamara Desrosiers, Secretary of the Southwest Heritage Foundation at the address above.

### Book Review

## The Ethnography of Rock Art

*Talking with the Past: The Ethnography of Rock Art*, edited by James D. Keyser, George Poetschat, and Michael W. Taylor, 380+ pages, photos, drawings, color plates. Oregon Archaeological Society, 2006. Price \$30 paperback (ISBN 978-0-976480-42-6), \$40 hardcover (978-0-976480-43-3), plus \$4 shipping/handling. Available from Oregon Archaeological Society, [www.oregonarchaeological.org](http://www.oregonarchaeological.org), P.O. Box 13293, Portland, OR 97213.

Reviewed by Sara A. Scott, Archaeologist, USFS, Helena and Lewis and Clark National Forests, Montana.

This meaty and compelling new book pushes the envelope in its all-inclusive approach. The book includes the proceedings of a symposium held in Portland, Oregon in 2002. The symposium brought together rock art scholars from around the world to discuss the role of ethnography in rock art analysis and interpretation and the issues surrounding it. Participants included well-known scholars Jean Clottes, David Whitley, James Keyser, Linea Sundstrom, Johannes Loubser and many others. Although David Lewis-Williams was not physically present, he contributed a paper to the symposium and his research forms the springboard for, and is woven throughout, many of the papers presented. A unique aspect of this book is that each paper is followed by a discussion among the symposium participants and a small group of elders and traditionalists from the Yakima, Warm Springs, and Nez Perce Tribes. Prior to the paper presentations, tribal traditionalists accompanied researchers to various rock art sites to provide both perspective and interpretation of the sites visited. The book includes the ensuing discussion in the field as part of Chapter 2 and the information presented offers new insight into “seeing” rock art.

Highlights of this 14-chapter book are many. Geographic areas covered in the book include Europe (France and Italy),

South Africa, the Great Basin, the Columbia Plateau, California, and the American Southwest. The papers begin in Chapter Three with J. David Lewis-Williams questioning the concept of using ethnography to “explain” rock art and stressing the importance of understanding tribal rituals such as the all-night dance in the African Kalahari in order to conceptualize how these rituals might be painted on a rock face. He further emphasizes the concept of “synecdoche” where only a part of a ritual is painted but represents the entire event. Lewis-Williams’s article includes illustrations of rock art panels from South African sites that show how this concept applies to a variety of images.

In Chapter Four, Linea Sundstrom warns against the pitfalls of using ethnographic information recorded or interpreted from those outside the culture and stresses that basic symbols such as a four-legged ungulate may represent “deer” in many cultures, but that more abstract symbolism would likely not transfer between cultures. Sundstrom discusses in depth the symbolism of the Lakota spirit being, “Double Woman,” who represents both the good and evil aspects of womanhood and how that symbolism is manifested at various rock art sites, including Ludlow Cave.

Philip Cash Cash, a Nez Perce traditionalist who speaks Sahaptin-Nez Perce provides his paper in English as well as in his native language. Philip first presented this paper at the Society for American Archaeology (SAA) meetings in Denver in 2002 in a format that included a PowerPoint in English but the spoken text was presented in Sahaptin-Nez Perce. The presentation was quite moving, to say the least and was the first of its kind at the SAA meetings. Cash uses 1930s field notes from a Cayuse elder, Gilbert Minthorn, to interpret a group of Biographic tradition battle scene paintings from the Steiwer Ranch in north-central Oregon.

James Keyser’s and Michael Taylor’s article draws on ethnographic data collected by missionaries and ethnographers who observed body gashing as part of the ritual behavior of Columbia Plateau tribes. They use this information as a means to potentially “explicate” (from Binford 1962) the many human created scalloped and nicked edges found along rock faces in the Columbia Plateau, commonly classified as the Columbia Plateau Scratched Style. Keyser and Taylor note that Cash Cash directed them to previously unknown ethnographic sources that reported ritual cutting associated with a particularly impressive form of shamanism among Columbia Plateau groups.

In the final chapter, David Whitley discusses how rites of passage and puberty rituals are represented in rock art of the Takic of southern California and northern Baja California on the basis of ethnographic information gathered from a number of sources. Whitley provides detailed descriptions of the rituals and subsequent paintings resulting from these rites of passage. The paper also includes a discussion of the Cupule Tradition of California and the Great Basin and the Yuman Puberty Art

Tradition of the lower Colorado River Valley. Whitley concludes that the creation of rock art during these puberty ceremonies is fairly typical and helps explain the abundance of these images in the far west. Further, he notes that the presence of handprints, particularly with the Takic results from our “inherently tactile nature and impulses” and that handprints reflect the belief that the rock face was a permeable barrier between the natural and supernatural worlds and by touching the rock face, it was possible to interact within the supernatural realm

All the papers in this book are excellent, extremely detailed, and well written. The book’s one identifiable shortcoming is that more context and background for the tribal elders and traditionalists included in the symposium is needed. I find it interesting that several papers (i.e. Sundstrom and Lewis-Williams) focused on the importance of context for ethnographic data and cultural practices and traits, yet background information provided for Yakima and Warm Springs participants by the editors was minimal. Information about Philip Cash Cash, the Nez Perce traditionalist, was supplied, but the role of the other six tribal traditionalists within their specific tribes is unclear. This information would strengthen the book all the more, especially since a central theme is that a better understanding of the context of tribal information and rituals allows for more meaningful application of this data to rock art interpretation

The inclusiveness of the book and how the symposium was orchestrated including the field trip with elders and traditionalists, paper presentations and subsequent discussions sets a new standard for rock art research and how it can and should be approached. The symposium obviously engendered a positive interchange between tribal members and archaeologists and for that, I applaud all the participants. My hat is off to Jim Keyser and his colleagues, Phillip Cash Cash, George Poetschat and Michael Taylor, for conceptualizing this event and for the vastly helpful information generated by it. This book belongs on the shelf of anyone with an interest in rock art and with a quest for its cultural context and meaning.

## Rocks of Ages:

### The Spectacular Diversity of Rock Art in California

THE BAY AREA ROCK ART RESEARCH ASSOCIATION presents an exhibit of rock art photography highlighting the richness and amazing variety of California’s Native rock art traditions, from painted mazes in the south to volcanic tuff inscriptions near the Oregon border in the north.

The abundant photographic talents of ARARA members were tapped to help create this show. Gratitude goes out to Evelyn Billo, Rick Bury, Frank Cox, Paul Freeman, Chris Gralapp, Donna Gillette, Garry Gillette, Jon Harman, Bill Hyder, Janet Lever-Wood, Amy Leska, Robert Mark, Leigh Marymor and Carolyn Toner for sharing their photographic works. The show opened on April 28 at the Marin Museum of the American Indian, a small but very active museum in Novato, about 40 minutes north of San Francisco. Please visit when you next find yourself in Northern California!



Rock Art researcher Elyssa Figari studies the *Rocks of Ages* exhibit.

*Rocks of Ages* is on view through October 2007, Marin Museum of the American Indian, 2200 Novato Blvd., Novato, CA, (415) 897-4064, [www.marinindian.com](http://www.marinindian.com). Hours are Tues.–Fri. 10 a.m.–3 p.m. and Weekends 12 noon–4 p.m.

## Membership Renewal Reminder

### Membership Payments Are Due July 1

Dues for the 2007-2008 Membership Year are payable now. Membership forms are available on the ARARA web site, [www.arara.org](http://www.arara.org). Please send renewal payments by mail to the ARARA address:

ARARA Membership  
Box 210026  
Tucson, AZ 85721-0026

For those attending the 2007 Billings Conference, look for the self-service Dues Payment Station (checks only, please) near the Registration area.



Photos by Jon Harmon illustrate the amazing ability of his DStretch program to bring out weathered, almost invisible rock art images.



## SAA 2007: Rock Art at 20 is Rapidly Coming of Age

Linea Sundstrom

ROCK ART WAS THE FOCUS of two symposia at the 2007 Society for American Archaeology meeting in Austin, Texas, April 25–29. The SAA Rock Art Interest Group sponsored “Structuring Rock Art ‘Site’ Studies,” moderated by Maria Cruz Berrocal and organized by her and Sven Ouszman. Unfortunately, Sven was unable to attend as he is recovering from an accident. Meg Conkey chaired the session. Researchers from around the world explored the meaning of patterns in rock art form and spatial distribution.

The session opened with two Spanish scholars. Manuel Santos Estévez discussed the Late Prehistoric Atlantic rock art style of the west coast of Europe, noting that representations of deer hunting show two different phases of the hunt: a communal drive and killing of individual stags. These pictures seem to be placed within the landscape at the locations where those phases of the hunt likely occurred. Juan Vicent Garcia looked at Levantine rock art systems as reflecting economic activities, noting that a single cultural group may produce more than one kind of rock art: for example complex hunting scenes in one context and abstract designs in another.

Donna Gillette continued her study of rock art boulders in the coastal mountain ranges of California, noting that the boulders are correlated with probable locations of ancient trails. Deeply ground rock art on talc boulders may have been produced in a ceremonial context, in which both the design and the powdered talc produced in creating it were used in fertility rituals.

Marit Munson presented a complex analysis of Rio Grande Valley rock art, focusing on various types of accessibility and visibility. She considered physical access, visibility, both on-site and from a distance, and audibility of activities at a site (whether people in the village can hear the sounds of others making or using the rock art). Marit argued persuasively that some rock art was deliberately placed to limit public access, visibility and audibility, while other rock art was made to be experienced by a wide audience.

Jo McDonald and Peter Veth took a “big picture” look at the rock art of the Western Desert of Australia. They found that distribution of rock art styles sometimes corresponds to linguistic boundaries and sometimes crosses them. They hypothesize that various groups shared graphic traditions over very large territories, perhaps to signal each other when they could not meet face to face. They suggest that rock art was a means of creating, maintaining, and renegotiating social identities and territories.

Chris Chippendale used radiocarbon dates on beeswax glyphs in northern Australia to show that particular “manners of depiction” can persist over several hundred years. Sites that date

to the same period have manners of depiction distinct from each other. This continuity of forms may be later artists’ response to the art of earlier ones and may reflect social cohesion, territories, or activities particular to the site.

In the final presentation Maria Cruz Berrocal noted that rock art of the Iberian Peninsula occurs as sets of large and small sites linked to each other in distance and visibility. Distinctive site clusters occur along trails and drainage systems. She asserted that rock art in this region was used to create social landscapes.

To sum up the session, Dave Whitley pointed out that rock art sessions have been part of the SAAs for 20 years now. Even better, rock art studies are now being presented outside of the dedicated rock art session(s). Dave urged rock art researchers toward bigger and better things. To progress, rock art researchers need to (1) pay attention to the existing rock art literature and to ethnography, (2) interpret the past, not just the rock art, (3) keep trying to develop good dating methods, (4) never forget context: consider both where sites are and where they are not, (5) and think in terms of site management, as most archaeology today is done as part of cultural resource management. Oh, and did he mention the need to build on earlier rock art studies and ethnographic work? It bears repeating.

The other symposium presented recent research from the Southwest, High Plains, and Midwest. Organizers were Elton Prewitt and Lenville Stelle and the chair was Dave Whitley.

In an ongoing study, Barbara Bane hypothesizes that variability and similarity in Chaco Canyon rock art reflects the degree of centralized control of communities and relationships between villages. She also explored whether the presence of rock art at “great house” sites such as Pueblo Bonito reflects ritual activity there.

Tina Carpenter looked at Hohokam rock art in the Phoenix vicinity in terms of landscape use. She identified sites to which trails lead as pilgrimage sites and those in small rockshelters as places of individual prayer, such as vision quest stations. She raised the interesting possibility that pecking is a ritual activity in itself, sometimes producing nondescript pecked areas rather than recognizable designs.

Len Stelle and Tonie Sadler linked a rock art site in Illinois to female themes. A waterfall and grotto complex contains pools and streams of water that turn red from bacteria, especially around the time of winter solstice. They further note that a fern that grows in the unique environment was used as a remedy for “female disorders.” The site thus is a lady place in terms of plants, physical form (springs and rockshelter), water properties, and the rock art itself, which includes depictions of hands and vulvas among other things.

Bonita Newman and Larry Loendorf confirmed that some pictographs in Wyoming and southern Montana are actually places where sheep rubbed against cliffs and rockshelter walls. They used a portable spectrometer to determine that the



composition of amorphous blue and green “pictographs” is the same as that of paints used to mark sheep before they are taken to pasture. The animals are feeling very sheepish about the confusion they caused archaeologists.

Larry Loendorf then turned to much older art and animals in asserting that hunting scenes in the Piñon Canyon Maneuver Site in Colorado date to the Early Archaic period (ca. 7800-5000 radiocarbon years before present). In this area, the pecked hunting scenes are older than the interconnected abstract figures typical of Middle Archaic period rock art. And even older than the pecked hunting scenes are recently discovered lightly incised designs, in the form of arrows, parallel lines, and the like. Although very early lightly incised rock art has not been reported from other parts of the west, Larry notes that similar incised designs show up on incised sandstone tablets from the Barton Gulch and Gault sites of Paleoindian age.

Dave Whitley hypothesized that ritual activity intensified in the far West during the dry, hot Altithermal climatic period. This pattern is evident in Pecos River, Barrier Canyon, Sierra de San Francisco, and Carrizo Plain areas.

Robert Mark, Evelyn Billo, and Margaret Berrier presented a set of very small, finely painted pictures of a deer, people butchering a deer, and a rabbit drive from a rockshelter in New Mexico. This appears to be a western extension of the Red Linear style of the Lower Pecos River.

Mark and Billo then presented a study done with Tim Roberts on rock art site management in the Texas Parks system, noting the need for a database of current and archival photographs of the rock art so that changes to the panels can be assessed.

Tim Roberts followed with a discussion of old and deliberate damage to Pecos River pictographs. He found that some scratching, abrading, and picking off bits of pigment occurred in pre-contact times. Interestingly, this deliberate obliteration was focused on skeletal anthropomorphs and animals, suggesting a possible link to shamanic ritual. More Pecos River rock art was presented in Carolyn Boyd’s and Elton Prewitt’s paper. They described the field methods they teach at their Shumla School field school, and emphasized the need for a research design before starting any field work.

Marvin Rowe presented a series of radiocarbon dates on Texas rock art, including the Pecos River, Red Monochrome, and Red Linear styles, and various panels at Hueco Tanks, Painted Indian Cave, and Tall Rockshelter. Dates range from 4000 to 750 radiocarbon years before present. These employed a plasma technique developed at Texas A&M. He called for interlaboratory studies to confirm the accuracy of the method.

In addition to the two rock art sessions, the conference included four—count ‘em—four symposiums on ritual cave use in the Americas. Many of these included discussions of rock art. To all appearances, rock art research is rapidly moving from the fringes to the mainstream of American archaeology.

## Book Review

### Great Basin Rock Art

*Great Basin Rock Art: Archaeological Perspectives*, edited by Angus R. Quinlan, 184+xii pages, including index, 21 figures. University of Nevada Press, 2007, [www.nvbooks.nevada.edu](http://www.nvbooks.nevada.edu), ISBN 978-0-87417-696-4. Price \$39.95 (hardcover).

Reviewed by Ken Hedges

*Great Basin Rock Art*, derived from papers presented at a 2002 Great Basin Anthropological Conference, presents 10 papers exploring rock art from archaeological and contemporary ethnographic perspectives. Two essays look at rock art as viewed by contemporary native peoples in the context of their expressions of myth, worldview, and cultural identity. Five papers look at rock art in archaeological context, from considerations of gender bias in rock art studies to the interpretive implications of landscape, settlement patterns, and site-specific archaeological context. One paper deals with dating methodologies, and Quinlan’s essays set the tone for the book at the beginning, and examine the past and present social contexts of rock art, including the commodification, appropriation, and consumption of rock art in contemporary Western contexts. Despite the book’s generalist title, the focus is on rock art in the northwest corner of the Great Basin with one excursion into neighboring Mountain Maidu country.

There is much to like in this book, with new data and emphasis on archaeological context that serves as good cautionary advice on rock art interpretation. There is also the agenda expressed by Bill Hyder’s endorsing quote on the dust jacket: “This book moves rock art research forward from its current stalled state arguing about shamanic theory and rock art interpretation.” What is not stated here, and in many other similar arguments, is that the shamanic theory in question is essentially a single interpretive model with a false sense of importance imparted by repetitive republication on the part of a small number of researchers. If you filter out this subset of rock art publications and look at the rest of rock art research—in the pages of *American Indian Rock Art* or *Rock Art Papers*, for example—it looks very much like the approaches espoused in this volume. This is not to say that the agenda is all bad: heaven knows I’ve fought some of those battles myself, but it is also important to realize that placing rock art “in the kitchens and livingrooms” does not necessarily make us more informed about meaning and function, that there is no factual dichotomy between between ritual and domestic activities, and that shamanism has value as part of the interpretive context for rock art. This book makes a good jumping-off point for further discussions of the rich data contained therein and the present limitations of all of our interpretive frameworks. We need to embrace the themes of this book to get ready for the next round.

## Call for Papers for *La Pintura*

**ARARA members would love to read** about your new rock art discovery, recording project, or new idea for interpretation. *La Pintura* needs members to submit articles on current research or fieldwork. Doing so will make *La Pintura* a better journal. Editorial guidelines can be found on the inside back cover of every issue.

### Editorial Deadlines for *La Pintura*

To insure timely publication of each issue of *La Pintura*, please follow the following schedule of deadlines for all Editorial copy and other submissions:

Issue 1: August 1

Issue 2: November 1

Issue 3: February 1

Issue 4: May 1

(Note: Issue 4 is the Annual Conference Program Issue, but includes additional Editorial matter as in any other issue)

Send all materials for inclusion in *La Pintura* to the Editor, William Breen Murray, via e-mail:  
wmurray@udem.edu.mx

### International Newsletter on Rock Art

**INORA**—*The International Newsletter on Rock Art*, edited by Jean Clottes and published in French and English three times a year (February, June, November)—is available to ARARA members for \$20 a year. Subscribe through ARARA and save the \$10 French bank charge. The 32-page newsletter contains the latest international rock art news. To subscribe, send a check for \$20 **made out to ARARA** to:

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**La Pintura** is the official newsletter of the American Rock Art Research Association. ARARA is not affiliated with the University of Arizona or the Arizona State Museum, which provides mailing facilities as a courtesy to the Association. Subscription to this publication is a benefit of membership in ARARA.

## ARARA Addresses

ARARA has several addresses. To get the most timely response, please send your inquiry to the right place.

### Membership

Membership is now accepted by mail order only with payment accompanying the official Membership Form, available on the ARARA web site or by sending a request for form to the Secretary at the address below. For **all Membership matters**, including new and renewal memberships (see full membership information on inside back cover) and corrections or changes in membership information and addresses, contact:

ARARA Membership  
Box 210026  
Tucson, AZ 85721-0026

### *La Pintura* Editorial Matters

For **editorial matters relating to *La Pintura***, including letters and articles for publication (see guidelines on inside back cover), contact:

*La Pintura*  
William Breen Murray, Editor  
e-mail: wmurray@udem.edu.mx

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8153 Cinderella Place  
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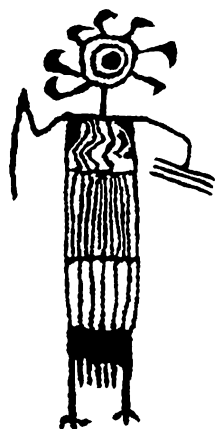
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ARARA Archive  
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Phoenix, AZ 85080-1998  
Phone (623) 582-8007  
e-mail: dvrac@asu.edu

### Web Site

For current information on **ARARA** and its events, officers, bylaws, publications, and membership, visit:

**www.arara.org**



The **American Rock Art Research Association** is a non-profit organization dedicated to encourage and to advance research in the field of rock art. Association members work for the protection and preservation of rock art sites through cooperative action with private landowners and appropriate state and federal agencies.

The **Association** strives to promote non-destructive utilization of rock art for scientific, educational, and artistic purposes. This is accomplished through a wide-ranging program to inform and educate the members as well as the general public regarding the rock art heritage of the United States as well as

worldwide. These goals are communicated through the quarterly newsletter, *La Pintura*. Annual three-day conferences give both members and others interested in rock art the opportunity to share professional papers, slide presentations, and informal discussions.

Membership in the **American Rock Art Research Association** is open to all with an active interest in research, non-destructive use, and preservation of rock art, regardless of their nationality or country of residence. Membership fees are:

Donor	\$120.00
Family	\$50.00
Individual	\$45.00
Society/Institution	\$60.00
Student*	\$35.00

\*Student rate requires photocopy of current student ID. Foreign members please add \$5.00 for Canada/Mexico, \$10 for other countries.

Membership runs from July 1 through June 30 of each year. The Association is concerned primarily with American rock art, but membership is international in scope. Benefits include *La Pintura*, one copy of *American Indian Rock Art* for the year, reduced conference fees, and current news in the field of rock art. More importantly, membership means a shared concern for the ongoing conservation and preservation of one of the most significant elements of our heritage. Membership information and application forms are available at [www.arara.org](http://www.arara.org). Send memberships to:

ARARA Membership  
Box 210026  
Tucson, AZ 85721-0026

[www.arara.org](http://www.arara.org)

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## ARARA Code of Ethics

The **American Rock Art Research Association** subscribes to the following Code of Ethics and enjoins its members, as a condition of membership, to abide by the standards of conduct stated herein.

1. All local, state, and national antiquities laws will be strictly adhered to by the membership of **ARARA**. Rock art research shall be subject to appropriate regulations and property access requirements.

2. All rock art recording shall be non-destructive with regard to the rock art itself and the associated archaeological remains which may be present. No artifacts shall be collected unless the work is done as part of a legally constituted program of archaeological survey or excavation.

3. No excavation shall be conducted unless the work is done as part of a legally constituted excavation project. Removal of soil shall not be undertaken for the sole purpose of exposing sub-surface rock art.

4. Potentially destructive recording and research procedures shall be undertaken only after careful consideration of any potential damage to the rock art site.

5. Using the name of the **American Rock Art Research Association**, the initials of **ARARA**, and/or the logos adopted by the **Association** and the identification of an individual as a member of **ARARA** are allowed only in conjunction with rock art projects undertaken in full accordance with accepted professional archeological standards. The name **ARARA** may not be used for commercial purposes. While members may use their affiliation with **ARARA** for identification purposes, research projects may not be represented as having the sponsorship of **ARARA** without express approval of the Executive Committee.

The **ARARA** Code of Ethics, points 1 through 5, was adopted at the annual business meeting on May 24, 1987. The Code of Ethics was amended with the addition of the opening paragraph at the annual business meeting, May 28, 1988.

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## ARARA 2007 Conference Program

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