Welcome to Las Cruces!
43rd Annual ARARA Conference, 2016

Welcome to Las Cruces! Another outstanding annual conference is planned for us. A whole host of volunteers contributed to planning and to making the conference a success under the able leadership of Donna Gillette, Conference Coordinator; Marglyph, Field Trip and Local Chair; and Lou Hillman, Program Chair. ARARA is lucky to have people of such energy and dedication working for us.

Last year the Board began working on a Field Trip Code of Ethics as a way to remind participants about ethical field trip behavior and the responsibilities we all have to preserve and protect rock art sites. The Board finalized this document, and anyone signed up for a field trip this year will have to sign the Field Trip Code of Ethics before embarking on a field trip.

The Board has also been discussing ARARA’s Code of Ethics (see Bylaws, Article XII, http://www.arara.org/documents/arara_bylaws.pdf) because we recognize that it has some “holes.” A discussion of the suggested changes is on the agenda of the Annual Business Meeting in Las Cruces. After incorporating feedback from that discussion, the Board will develop a formal proposal for the necessary Bylaw changes to be voted on at the 2017 Annual Business Meeting.

Why all this focus on ethics? Because we, as ARARA members, should be the ones setting a good example. I was reminded of this recently when I was told about a group of “rock art people” who trespassed on privately owned land to visit rock art sites, mightily angering the landowners. I do not want to think this group contained any ARARA members (after all, any group visiting rock art sites could be labeled “rock art people”) because I believe that ARARA members would have gotten the appropriate permissions. But it is a reminder that all of us need to be aware of who owns or manages the sites we visit and make sure we get appropriate permission ahead of time—that’s one way to help preserve and protect sites. Another way is to become a site steward. Graffiti and other negative impacts from visitation are common. Don’t just complain or wish it were otherwise. Do something positive about it: volunteer to work with your local agencies and land managers and become a site steward.

I’m happy to hear your thoughts on these or other ARARA matters; I can be reached at dianehamann@cox.net or talk to me in Las Cruces.

—Diane Hamann, ARARA President

ARARA Annual Business Meeting
Sunday, May 29, 2016, 8:30 a.m. in the Brazito Room
Agenda
I. Call to Order—President Diane Hamann
II. Officers’ Reports
a. President Diane Hamann
b. Vice President Sandy Rogers
c. Secretary Jennifer Huang

ACTION NEEDED: Approval of Minutes

d. Treasurer Jack Wedgwood

III. Committee Reports*
a. Standing Committees
Nominating Committee—Committee Chair Shurban
Election of Officers—Results
b. Ad Hoc Committees

IV. Annual Conference Report—Conference Coordinator Donna Gillette

V. New Business
a. Nominating Committee

ACTION NEEDED: 3 ARARA members to be elected to serve on the 2016-17 Nominating Committee
b. Proposed Changes to ARARA Bylaws, Article XIII, Section 1, Awards Committee (see proposal page 20)
c. Proposed Changes to Code of Ethics—DISCUSSION
d. Research Project Support—DISCUSSION

VI. Adjourn

*Additional committee reports may be added by the Board prior to the Business Meeting.

2016 ARARA Acknowledgments

Once again ARARA members have volunteered to bring your annual conference to you! On behalf of the membership, local Chair and Field Trip Chair Marglyph Berrier and Conference Coordinator Donna Gillette are pleased to acknowledge the hard work and contributions of the following individuals:

• Auction Chair: Glenda Simmons
• Auctioneer: Larry Evans
• Audiovisual: Scott Seibel, Daniel McCarthy, and Sandy Rogers
• Awards: Troy Scotter and anonymous reviewers
• Conference Program Layout: Ken Hedges
• Conference Registrar: Donna Yoder
• Education Committee Student Poster Contest: Teresa Saltzman
• Education Committee Student Presentation Coordinator: Carolyne Merrell
• Field Trip Acknowledgments: see page 12
• Field Trip Coordinator: Tania Ryan
• Conference Logo: Marglyph
• Program Chair: Louis Hillman and anonymous reviewers
• Program Editing: Anne McConnell
• Public Relations: Chris Gralapp
• Publications Sales: Ken Hedges
• T-Shirt and Program Cover Design: Scott Seibel
• Three Rivers Contact Station Grand Opening: Matthew Punke
• Vendor Room: Patti Genack
• Volunteer Coordinator: Teresa Saltzman
• Ramada Hotel and Conference Center: Ana Marie Salazar and Miranda McAllister

There are so many people who support ARARA and help with the Annual Conference—if we have inadvertently left anyone off this list, please accept our apologies along with our thanks!
ARARA 2016 Conference Program
Ramada Las Cruces Hotel and Conference Center

Thursday, May 26, 2016

9:00 a.m. – 5:00 p.m.  Board Meeting—Santa Fe Room
Noon – 7:00 p.m.  Conference Registration—San Juan Room
1:00 – 3:00 p.m.  DStretch Workshop (Beginning)—La Mesa Room
3:30 – 5:30 p.m.  DStretch Workshop (Advanced)—La Mesa Room
5:00 – 6:30 p.m.  NO-HOST BAR with Light Refreshments & Open Forum with ARARA Board—Brazito Room
6:00 – 6:30 p.m.  Field Trip Leader Meeting—Lava Lounge
6:30 – 7:00 p.m.  Field Trip Orientation for all participants —Brazito Room

Friday, May 27, 2016

All Day  Field Trips—Meeting times and places to be announced at Thursday meeting
1:00 – 5:00 p.m.  Conference Registration—San Juan Room
6:00 – 8:00 p.m.  Reception—Lava Lounge
8:00 – 9:00 p.m.  Auction items may be delivered to the Auction Committee—Doña Ana Room
8:00 – 9:00 p.m.  Vendor Room Setup—Doña Ana Room
8:00 – 9:00 p.m.  Poster Setup—Brazito Room
8:00 – 9:00 p.m.  Presenter Meeting and delivery of PowerPoint files to the A/V coordinator—Brazito Room

Saturday Morning, May 28, 2016

6:30 – 8:00 a.m.  Vendor Room Setup—Doña Ana Room
7:30 – 8:00 a.m.  Poster Setup—Brazito Room
7:30 – 8:45 a.m.  Publication Committee Meeting—San Juan Room
7:30 – 8:45 a.m.  Conservation Committee Meeting—Santa Fe Room
7:30 – 8:45 a.m.  Archives Committee Meeting—Lava Lounge
8:00 a.m. – 5:00 p.m.  Conference Registration—Brazito Room
8:00 – 9:00 a.m.  Vendor Room Open (also open during breaks, lunch, and until 6 p.m.)—Doña Ana Room
Auction items accepted at the Auction Table when the Vendor Room is open

9:00 – 10:30 a.m.  Conference Welcome and Opening Presentations—Brazito Room
Welcome and Announcements
Diane Hamann, ARARA President
Plenary Speaker
Myles Miller: Five Millennia of Settlement and Rock Art in the Jornada Mogollon Region of Southern New Mexico and West Texas

10:30 – 11:00 a.m.  BREAK
Vendor Room Open—Doña Ana Room

11:00 a.m. – Noon  Session 1—Brazito Room
Joan Price: A Large Jaguar and Related Glyphs at Three Rivers Petroglyph Site
Cesar Quijada: Las Pinturas Rupestres del Divisadero
Lawrence Loendorf and Marvin Rowe: Chihuahuan Polychrome Abstract Style Rock Paintings in the Jornada Mogollon Region

Noon – 1:30 p.m.  LUNCH
Vendor Room Open—Doña Ana Room

Noon – 1:30 p.m.  Education Committee Meeting—Santa Fe Room
Saturday Afternoon, May 28, 2016

1:30 – 3:00 p.m.  
**Session 2**—*Brazito Room*

- **Evelyn Billo and Robert Mark**: Southwest Border Parks Rock Art Documentation Project 2014-2015
- **Kimberly Sumano-Ortega, José Luis Punzo Díaz, and David Arturo Muñiz García**: Rock Art and Households in Western Mexico: The Case of Chavinda, Michoacán
- **Emiliano Gallaga, Victor Ortega León, and Tobias García Vilchis**: Preliminary Results from the Peñon del Diablo Archaeological Project, Janos, Chihuahua
- **Ana Laura Chacón and Daniel Herrera Maldonado**: Images of “Butterfly Hair Whorls” in Chalchihuites Rock Art from Durango, Mexico
- **Daniel Herrera Maldonado**: Rhythms in the Landscape: the Archaic Pictorial Tradition of Durango, Mexico
- **Benny Roberts and Roger Boren**: Archaeoastronomy at an Eastern Trans-Pecos Rock Art Site

3:00 – 3:30 p.m.  
**BREAK**

Vendor Room Open—*Doña Ana Room*

3:30 – 5:00 p.m.  
**Session 3**—*Brazito Room*

- **Polly Schaafsma**: Power and Iconography: Continuity and Change in Pueblo Shields Through Time
- **Roger Boren**: The Rock Art of the Black Hills, Brewster County, Texas
- **Aaron Wright**: The Painted Rock Petroglyph Site: A Historical Overview with Observations on Context
- **Kevin Conti, James D. Keyser, and David A. Kaiser**: Pipe Spring: Fremont–Anasazi Interaction in Southeast Utah
- **David Sucec**: White Figures in Escalante

5:00 – 6:00 p.m.  
Vendor Room Open—*Doña Ana Room*

6:00 – 8:00 p.m.  
**SILENT AUCTION, AUCTION, and NO-HOST BAR**—*Lava Lounge*

Sunday Morning, May 29, 2016

7:30 – 8:30 a.m.  
**Website Committee Meeting**—*San Juan Room*

8:00 a.m. – 5:00 p.m.  
**Conference Registration**—*Brazito Room*

8:00 – 8:30 a.m.  
Vendor Room Open—*Doña Ana Room*

8:30 – 10:00 a.m.  
**BUSINESS MEETING**—*Brazito Room*

All members are encouraged to attend

10:00 – 10:30 a.m.  
**BREAK**

Vendor Room Open—*Doña Ana Room*

10:30 a.m. – Noon  
**Session 4**—*Brazito Room*

- **Daniel McCarthy**: Archaeological Site Recording at Coyote Hole Canyon, Joshua Tree, California: Preliminary Assessment
- **James Keyser and Stephanie Renfro**: A Horse is a Horse—and They Do Tell Us Things!
- **Leigh Marymor and Amy Marymor**: Western Message Petroglyphs: Esoterica in the Wild West
- **Livio Dobrez**: A Universalist Taxonomy for Pictures

Noon – 1:30 p.m.  
**LUNCH**

Vendor Room Open—*Doña Ana Room*

Noon – 1:30 p.m.  
**Student Lunch**—*Santa Fe Room*

Noon – 1:30 p.m.  
**Open Discussion with the Board: Possible Grants Program**—*Atrium*

Sunday Afternoon, May 29, 2016

1:30 – 2:00 p.m.  
**Session 5**—*Brazito Room*

- **Karen Steelman**: Chemical Analysis of Ancient Paintings
- **Anne Stoll and George Stoll**: Tracking Down the Past: A Search for African Rock Art in London, England
2:00 – 2:45 p.m.  
**Poster Session**

Christopher Adams, Wendy Sutton, Mark Altaha, Holly Houghten, Arden Comanche, and Mae Burnette: Spirit Canyon Apache Pictographs (LA 47826), Gila National Forest  
Michael Bilbo: Seeking to Define the Apache Style  
Diane Fox and Jim Uhrinak: Lynx Paw Petroform Alignments to Iron Mountain on Wisconsin’s Niagara Escarpment, to Neda Spring, and to a Surface Exposure of Red Ochre  
Emiliano Gallaga: Mexican Legislation for Archaeological Research Projects in Mexico  
Janet Mackenzie, Esta Gutierrez, and Judith Chaddick: Mesa Prieta Petroglyph Project  
Robert Mark and Evelyn Billo: LabStretch: An Image Color Enhancement App for the iPad  
Kerrie Neet and Ray Kenny: Do Images on Some Esplanade Style Pictographs in Western Grand Canyon Depict Early Domestication of Bighorn Sheep? A Hypothesis  
Tania Ryan: Visions in Time: Contextual Change from Rock Art and Intaglio to Textile and Tattoo

2:45 – 3:15 p.m.  
**Session 6—**Brazito Room  
Janine Hernbrode and Peter C. Boyle: Broad Distribution of Flower World Imagery in Southern Arizona Hohokam Petroglyphs  
J. Royce Cox and Marvin W. Rowe: New Cold Plasmas: Pictograph Pigment Sampling for C14 Dating

3:15 – 3:45 p.m.  
**BREAK**  
*Vendor Room Open—Doña Ana Room. Vendor Room Closes After This Break*

3:45 – 5:00 p.m.  
**Session 7—**Brazito Room  
Steven Waller: Pre-Pottery Neolithic Rock Art of Gobekli Tepe, Turkey  
Charlotte Vendome-Gardner: The Importance of the Use of Landscape-Based Approaches in Rock Art Research  
John Pitts: When Lightning Strikes Twice: Correlating Lightning Strikes and Rock Art Imagery

5:00 – 6:30 p.m.  
**NO-HOST BAR—**Atrium

6:30 p.m.  
**BANQUET—**Rio Grande Room  
Banquet Speaker  
David Soules: Organ Mountains–Desert Peaks: the Making of a Monument  
Awards

**Monday, May 30, 2016**

All Day  
**Field Trips**—Meeting times and places to be announced at Thursday meeting
Christopher Adams (Gila National Forest), Wendy Sutton (Gila National Forest), Mark Altaha (White Mountain Apache Tribe), Holly Houghten (Mescalero Apache Tribe), Arden Comanche (Mescalero Apache Tribe), and Mae Burnette (White Mountain Apache Tribe)

**Spirit Canyon Apache Pictographs (LA 47826), Gila National Forest (Poster)**

The Gila National Forest Heritage Program initiated archaeological investigations of the Spirit Canyon Apache pictographs in 2014. In the summer of 2015, the White Mountain Apache Tribe and the Mescalero Apache Tribe were invited to the Gila National Forest, Wilderness Ranger District to view and help in the interpretations of this unique Apache Spirit Dancers pictograph site. This Apache pictograph site on the Gila National Forest represents the largest known collection of “Spirit Dancers” also known as “Gahn Dancers” in the American Southwest. This collaborative approach will provide a more complete interpretation on Apache pictograph customs and rituals by working with the Tribes whose ancestors created the pictographs at Spirit Canyon. The results of this investigation will aid in new interpretive signage the Gila National Forest Heritage Program has planned for 2016/2017.

Michael Bilbo (El Paso Archaeological Society)

**Seeking to Define the Apache Style (Poster)**

Over the years we have kind of defined the Apache Style, but just what design elements and contexts define the style? Probable and potential Apache rock art, primarily pictographs, is considered from several sites in west Texas and central to southern New Mexico.

Evelyn Billo and Robert Mark (Rupestrian CyberServices)

**Southwest Border Parks Rock Art Documentation Project 2014-2015**

National Park Service archaeologists identified nine rock art sites in three southwest border parks as priorities for documentation as part of a Cooperative Ecosystem Studies Project that included training two student assistants from Mexico, Nahum Solis and Adriana Medina-Vidal. Indian Head Mountain at Big Bend National Park was endangered by vandalism, Painted Grotto and Upper Painted Grottoes at Carlsbad Caverns National Park were priority sites for the Apache, and Guadalupe Mountains National Park needed baseline documentation of its heavily weathered sites. In addition to recording forms, high-resolution photography, GigaPans, and GPS mapping, 3-D, and image enhancement techniques were used to document the rock art during three weeks of fieldwork. Both students are continuing their studies and have applied aspects of what they learned to document sites in their homeland.

Roger Boren (Center for Big Bend Studies, Sul Ross State University)

**The Rock Art of the Black Hills, Brewster County, Texas**

A comprehensive survey of the 2,800 acres that comprise the Black Hills in central Brewster County, Texas, was conducted in 2006–2007. This project led to the recordation of 64 sites, 29 of which are rock art sites. A discussion of the survey results pertaining to site distribution and the relationship between campsites and rock art sites will be presented. The majority of the rock art in the Black Hills consists of petroglyphs which exemplify a desert abstract rock art style; however a number of design elements are more representational in nature. It appears that some of the rock art may indicate affiliation with imagery found in regions adjacent to the eastern Trans-Pecos.

Ana Laura Chacón (Escuela Nacional de Antropología e Historia) and Daniel Herrera Maldonado (Universidad Nacional Autónoma de México)

**Images of “Butterfly Hair Whorls” in Chalchihuites Rock Art From Durango, Mexico**

In this paper we will analyze the various depictions of figures with “butterfly hair whorls” that have been documented in rock art in northwestern Durango state. These images are associated with the distribution of ancestral Puebloan cultures that arrived in Durango about A.D. 600, due to the strong contacts established with the Chalchihuites culture. In this context, we used an iconographical approach to the study of these female figures, as well as considering the importance of landscape features with which they are associated. This will allow us to establish the probable role of this character compared to what happens in the Southwest, with the understanding that their assimilation involves an adaptation to the context of this new culture.
Kevin Conti (New Mexico State University), James D. Keyser (Oregon Archaeological Society), and David A. Kaiser (Oregon Archaeological Society)

Pipe Spring: Fremont–Anasazi Interaction in Southeast Utah

Site 42SA27325, Pipe Spring, is a small, four-room pueblo, Anasazi farmstead in southeastern Utah. The ceramic assemblage suggests occupation between A.D. 750 and 1175. A T-shaped door is typical Mesa Verde architecture, while other attributes suggest Kayenta influence. Anthropomorphs on associated rock art panels indicate BM II-III period activity (400 B.C.—A.D. 750), but later petroglyphs share production and stylistic attributes with Fremont motifs found to the north and west. Whether these images postdate pueblo occupation or represent a mixing of cultural ideologies is undetermined, but the presence of numerous cultural identity markers at the site offer a unique research opportunity.

J. Royce Cox and Marvin W. Rowe (Museum of New Mexico, Office of Archaeological Studies)

New Cold Plasmas: Pictograph Pigment Sampling for 14C Dating

The Museum of New Mexico’s Office of Archaeological Studies has established a plasma oxidation radiocarbon sampling laboratory. The system uses multiple chambers for sampling and multiple collection tubes. We can routinely prepare samples consisting of as little as 40–100 millionths of a gram of carbon, enough for a radiocarbon date at the Zürich-ETH AMS laboratory. With support from the National Center for Preservation Technology and Training, our lab is exploring how different organic materials respond to variation in plasma power, temperature, and duration. These experiments will improve the sampling of extremely low-carbon materials (such as pictograph pigment binders) as well as bone.

Livio Dobrez (Australian National University, retired)

A Universalist Taxonomy for Pictures

Over the past decade I have looked for a way of talking about pictures, i.e. for a classification system for pictures, that would cover all art, including rock art, and that would not be based on culture-specific premises. In this article I offer an overview of the investigation, which centers on analysis of the actual perception of pictures—with reference to perceptual situations in real life which might have evolutionary import. I also give consideration to ways in which cognitive psychology and neurophysiology might offer scientific support for the thesis.

Diane Fox and Jim Uhrinak (Niagara Escarpment Resource Network)

Lynx Paw Petroform Alignments to Iron Mountain on Wisconsin’s Niagara Escarpment, to Neda Spring, and to a Surface Exposure of Red Ochre (Poster)

The Lynx Paw Petroform and its bisecting stone alignment are aimed toward Iron Mountain, the highest point on Wisconsin’s Niagara Escarpment. This prominence in southern Wisconsin has strong central place characteristics at the intersection of American Indian trail routes and natural geographic features. A second alignment introduced by a boulder in the carpal pad position extends toward a perennial headwater spring feeding into Wildcat Creek at the base of Iron Mountain and a culturally significant, rare, natural surface exposure of red ochre in the Neda Ironstone deposit above the spring.

Emiliano Gallaga (Director, Escuela de Antropología e Historia del Norte de México, Chihuahua)

Mexican Legislation for Archaeological Research Projects in Mexico (Poster)

In this vast and shared region, there still a lot of rock art sites unregistered and not investigated, mostly on the Mexican side of the border. We are aware that in order to fully understand this area we need to have a more complete picture on both sides, but the way to do archaeology is not the same in the two countries. Unlike the United States, the archaeological research in Mexico is performed and regulated by one single federal institution, the Instituto Nacional de Antropología e Historia (INAH), which has its own federal laws and its own archaeological council where all national and international projects are subject to approval. In this particular case, we like to share the particularities and bureaucratic step to perform archaeological research in Mexico.

Emiliano Gallaga, Victor Ortega Leon, and Tobias García Vilchis (Escuela de Antropología e Historia del Norte de México, Chihuahua)

Preliminary Results from the Peñon del Diablo Archaeological Project, Janos, Chihuahua

In this paper we present the preliminary results of the first field season of the project at El Peñon del Diablo, a rock art site near the community of Janos, Chihuahua. This project was born from the interest of the culture department of the municipality staff of Janos to see what research can be conducted on this site so they can identify the cultural heritage of the community and, on the other hand, promote tourism. Thanks to the collaboration between the municipality and the EAHNM, we conducted systematic registration of all panels located on the rock and the total surface collection of
archaeological material in an area of 250x150 m. At first it was thought that El Peñón del Diablo was an isolated site in the valley, but the registration of 25 ovens, various stone grinding bowls, and a considerable amount of lithic material indicates a more complex occupation site, early but of long duration.

Janine Hernbrode and Peter C. Boyle (Arizona Archaeological and Historical Society)

**Broad Distribution of Flower World Imagery in Southern Arizona Hohokam Petroglyphs**

Examination of rock art at eight substantial sites in southern Arizona indicates a widespread presence of imagery associated with the Flower World, an ancient Uto-Aztec metaphor dating back thousands of years. We examined data and photographs from our recording projects at Tumamoc Hill, Sutherland Wash, and Cocoraque Butte as well as by others at five additional sites. The Flower World Complex is clearly evidenced at five of the sites. It is either not present or is equivocal at the other three sites. There are interesting differences among the sites; for example, some sites have largely representational imagery whereas others have a much stronger presence of abstract images representing the Flower World. Taken together, the data suggest a broad presence of the Flower World Complex among the Hohokam in southern Arizona, but its expression varies across the landscape and perhaps over time.

Daniel Herrera Maldonado (Universidad Nacional Autónoma de México)

**Rhythms in the Landscape: the Archaic Pictorial Tradition of Durango, Mexico**

The archaeological study I have undertaken in the Molino canyon, located in the Guatimapé plains, has led me to recognize the presence of several sites belonging to the so-called Archaic Pictorial Tradition whose distribution covers the northern part of the Sierra Madre Occidental in Durango state. In that sense this work will aim to explore the main features and variations that define this abstract tradition in terms of their particular arrangement and the symbolic construction of the landscapes. I also delve into similarities with the Chihuahuan Polychrome Abstract Style defined by Polly Schaafsma. This brings us to the possibility of conceiving a common language between the hunter-gatherer societies of the late Archaic, leading them to establish a network of relationships that would extend to the Southwest.

James Keyser (Oregon Archaeological Society) and Stephanie L. Renfro (Oregon Health Sciences University)

**A Horse is a Horse—and They Do Tell Us Things!**

Horses are a key component of Northwestern Plains biographic rock art and scholars have intuitively distinguished Crow and Blackfoot horses based on different neck form, accoutrements, and typical associations with various humans. Despite this general understanding, no one has formally defined these types of horses or developed a system to quantify their differences. To provide evidence for identifying a Crow “calling card” petroglyph we developed a system to quantify these differences and statistically tested their significance. The resultant identifications enable us to define both Crow and Blackfoot horse styles and use these to better interpret several Plains rock art sites.

Lawrence Loendorf (Sacred Sites Research, Inc.) and Marvin Rowe (Center for New Mexico Archaeology)

**Chihuahuan Polychrome Abstract Style Rock Paintings in the Jornada Mogollon Region**

Colorful rock paintings, in several shades of reds and yellows that are sometimes mixed with black and white pigments, are found across southeastern New Mexico and northwestern Texas. Polly Schaafsma identifies these paintings as the Chihuahuan Polychrome Abstract Style. Further she suggests that they are Archaic in age. A paint sample from the Doña Ana site, near Las Cruces, was radiocarbon dated through the plasma oxidation method to 1975 ± 95 B.P., an age at the very end of the Archaic Period. Other regional sites suggest the style continued to be made into the Jornada Mogollon Formative Period.

Janet Mackenzie, Esta Gutierrez, and Judith Chaddick (Mesa Prieta Petroglyph Project)

**Mesa Prieta Petroglyph Project Education Programs (Poster)**

The Mesa Prieta Petroglyph Project’s mission is to promote heritage stewardship and archaeological preservation through documentation, education, and public outreach. To this end, the project implements a number of education programs in northern New Mexico. A recent push to expand the use of our STEM-based 4th–7th grade curriculum, Discovering Mesa Prieta, in the upper Rio Grande Corridor has been very successful, with 17 schools now teaching local prehistory and history through the lens of the petroglyphs on Mesa Prieta.

Robert Mark and Evelyn Billo (Rupestrian CyberServices)

**LabStretch: An Image Color Enhancement App for the iPad (Poster)**

We have developed LabStretch, a free app for the iPad. It is intended for image color enhancement in the field of photographs acquired with the iPad. It is based upon histogram stretches of the orthogonal color channels (a and b) in the Lab color space. See http://www.rupestrian.com/labstretch.html for a description and an iTunes download link.
Leigh Marymor and Amy Marymor (Bay Area Rock Art Research Association)

**Western Message Petroglyphs: Esoterica in the Wild West**

Twenty-nine petroglyph sites found scattered across eight Western States appear to be highly associated with one another, and to date from the historic period, approximately from 1847 to 1903. Drawing on several lines of converging evidence we propose that these petroglyph sites are the result of one actor, or a small group of individuals who were all “in-the-know.” For reasons we will present here, we propose that it may be productive to search for the historic author, or authors, during the period of western expansion, among individuals with roots in Mormonism, experience with fraternal association, and a connection to quarry and mining activity.

Daniel McCarthy (Riverside, California)

**Archaeological Site Recording at Coyote Hole Canyon, Joshua Tree, California: Preliminary Assessment**

An abundance of petroglyphs occur at this site but because it is divided among numerous private property owners it has never been recorded, let alone documented. A grass-roots effort began three years ago to protect the site. Property owners, one of them being the San Bernardino County Flood Control District, were interested in aiding in site protection and were willing to transfer their parcels to a non-profit organization. Because of the location of petroglyphs on high, steep cliffs, a drone was used to aid in photography. There is an abundance of petroglyph panels and two pictograph panels along with much other evidence of prehistoric use over the last 1,500 years. Methods of recording and management issues will be discussed.

Myles Miller (Plenary Speaker) (Versar, Inc.)

**Five Millennia of Settlement and Rock Art in the Jornada Mogollon Region of Southern New Mexico and West Texas**

During the past decade, archaeological and iconographic studies have revealed a rich record of prehistoric ritual and belief in the Jornada region of west Texas and southern New Mexico. Evidence of ritual behavior has been found in icons inscribed or painted on rock art panels, in ritual features in pueblo rooms, in the construction of shrines, and even at large agave baking pits. Studies of Archaic and Jornada-style rock art have provided insights into complex and sophisticated beliefs. For much of the prehistoric sequence of the past 5,000 years, we can now link broad patterns of prehistoric settlement adaptations and social change to the iconography inscribed and painted on rock faces, ceramics, and other items. The plenary address will review these discoveries to place the rock art traditions of the Jornada region in context. It is hoped that the rock art sites and panels observed during the field trips will be viewed within these new perspectives.

A graduate of Texas Tech, Myles Miller has been professionally involved with the prehistory of the Jornada Mogollon and Trans-Pecos regions since completing his graduate studies and returning to El Paso in 1983. He has conducted research and has participated in numerous excavations of prehistoric and historic Native American settlements in west Texas, southern New Mexico, and southeastern Arizona. His current research interests involve the relationships in the Jornada region among social organization, ritual, place marking on the landscape, and ceramic and rock art iconography. He is also the author of numerous publications and professional reports on these topics. Mr. Miller presently serves as a Principal Investigator with Versar (formerly Geo-Marine, Inc.) and supervises archeological consulting work at Fort Bliss, Texas.

Kerrie Neet (Durango, Colorado) and Ray Kenny (Fort Lewis College, Geosciences Department)

**Do Images on Some Esplanade Style Pictographs in Western Grand Canyon Depict Early Domestication of Bighorn Sheep? A Hypothesis (Poster)**

Indigenous people have domesticated and semi-domesticated large mammals for centuries. Asiatic Mouflon sheep (Zagros Mountains, Iran) were first domesticated ca. 5000 years ago. Based on an analysis of Esplanade Style pictographs in western Grand Canyon, we hypothesize that during the Archaic Period bighorn sheep were domesticated or semi-domesticated. One bighorn, enhanced by DStretch, appears to have a yoke or harness around the neck. Another painting depicts a staff-like object that may have been used as a herding tool. A third pictograph has a row of parallel lines, suggestive of barriers used to herd animals. All panel objects are associated with linear bighorn processions.

John Pitts (Santa Fe, New Mexico)

**When Lightning Strikes Twice: Correlating Lightning Strikes and Rock Art Imagery**

Lightning strikes are one of the most visual elements found in nature and it is not surprising that Native Americans have been captivated for eons by the power of lightning. Evidence of that is seen in the frequent depictions of lightning in rock art images. I have studied the phenomenon of lightning bolt tracks on rock/cliff surfaces, called rock fulgurites, for years. My research has raised a number of questions pertaining to the frequency of those strikes, the dating of them, and the possible connection to the associated rock art. Since little has been established scientifically in relation to lightning bolt strikes to
date, the field is wide open. I will present certain theories concerning the relationship between the rock fulgurites and rock art imagery portraying nature and human survival.

Joan Price (Jornada Research Institute)

A Large Jaguar and Related Glyphs at Three Rivers Petroglyph Site

Kay Sutherland, a cultural anthropologist and co-founder of ARARA, identified several petroglyphic images in the Jornada Mogollon cultural landscape that she traced back into prehistoric Mesoamerican origin. She was among a number of researchers including Theodore Frisbie (1986) and George Kubler (1967) who consider clusters of images to be meaningful. Among her findings, Sutherland identified jaguar glyphs and associated icons at the Three Rivers petroglyph site based on the work of Mexican anthropologist Román Piña Chan (1989). This presentation describes and documents an important site at Three Rivers featuring a very large jaguar that Sutherland investigated, the associated icons identified by Piña Chan, and several other related glyphs that enrich the iconographic context of this jaguar, including a remarkable symbolic anthropomorphic figure pierced by a “dagger” of light that may have served as a ritual timing event.

Cesar Quijada (Centro INAH Sonora)

Las Pinturas Rupestres del Divisadero

This archaeological site is located in the municipality of La Colorada in the Sonora River basin, which is one of the regions in my proposed regionalization of the rock art in the State of Sonora. In this cave there is only one concentration of rock paintings, which consists of anthropomorphic forms. The main character is black. At his sides are two human figures in red. They draw our attention because they look like paintings observed in the region of the La Pintada site in the Sierra Libre, located south of the city of Hermosillo. These two paintings can be considered as part of the style of La Pintada.

Benny Roberts (Byram, Mississippi) and Roger Boren (Center for Big Bend Studies, Sul Ross State University)

Archaeoastronomy at an Eastern Trans-Pecos Rock Art Site

In 2006, 29 rock art sites were recorded in the Black Hills of central Brewster County, Texas, by the Center for Big Bend Studies at Sul Ross State University. Among all of these sites only one cupule and grooved rock art site was recorded and it is located on top of a large horizontal sandstone spall. On a subsequent visit to the site it was noted that 7 of the 23 cupules appeared very similar to a portion of the Scorpius constellation while 5 other cupules closely resembled the Pleiades star cluster. As viewed from the site, Scorpius rises just prior to and at the same azimuth as the sun on the winter solstice while the Pleiades rise at the same azimuth as the sun on the summer solstice.

Tania Ryan (Novato, California)

Visions in Time: Contextual Change from Rock Art and Intaglio to Textile and Tattoo (Poster)

There is much work being done in the field of rock art all over the world and especially in the South Pacific. Raivavae, however, does not appear to have had any work done upon its rich history in this aspect. There have been expeditions to Raivavae in the past, and a team was in the field in 2006 examining colonization and settlement patterns, Marae architecture, interaction zones, and human impact on the island ecosystem. This research design proposes a thorough study and analysis of the rock art and intaglio on the island of Raivavae, exploring the contextual changes of selected enduring figures from rock art through the forms of ceramic and textile onto skin (tattoo) while examining the potential of the question of status in contrast to power in group interaction and marriage relations as an impetus for the change. This research would help further understanding of the Marae aspects of their expedition while adding to the present body of the work done in the Austral Islands and French Polynesia, as well as inform and enhance the work in the South Pacific as a whole.

Polly Schaafsma (Museum of New Mexico)

Power and Iconography: Continuity and Change in Pueblo Shields Through Time

On a world-wide basis, supernatural properties are ascribed to shields, investing them with powers that promote their defensive roles. Shields are a distinctive component of Pueblo rock art beginning in the thirteenth century and continuing into early Post-contact times. This paper addresses the symbolic significance of Pueblo shields and the function of shield imagery in landscape contexts. While the interpretation of shield iconography during Pueblo IV (ca. A.D. 1325–1600) is well-served via the ethnographic record, following the Pueblo Revolt in 1680 significant changes impacted shield iconography as the Pueblos incorporated Plains-style layouts and elements. The significance of these changes will be considered. On a general front the adoption of foreign ideas provides an avenue to understanding Pueblo assimilation of outside influences while maintaining their Pueblo identity.
David Soules (Banquet Speaker)

Organ Mountains–Desert Peaks: the Making of a Monument

A description of a number of the cultural and historic features that led to creation of the Organ Mountains–Desert Peaks National Monument. The presentation will cover the Butterfield Trail, caves that sheltered prehistoric people and fauna, Native American rock art, the Bartlett-García Conde International Boundary Survey, Billy the Kid's hideout at Outlaw Rock, and more—with current and historic photos.

Karen Steelman (University of Central Arkansas)

Chemical Analysis of Ancient Paintings

Our laboratory collaborates with archaeologists to study ancient rock paintings. We specialize in using a glow discharge for radiocarbon dating sample preparation. Prior to low-temperature plasma oxidation of organic binders in the paint, we pretreat red and black paint samples with sodium hydroxide solution to remove humic acids. Extracted carbon is analyzed using accelerator mass spectrometry. Radiocarbon results are calibrated using the OxCal computer program. We also conduct mineral analyses on samples using portable X-ray fluorescence and X-ray diffraction to identify mineral pigments used by ancient artists. These types of chemical results can aid in the study of ancient cultures.

Anne Stoll and George Stoll (Claremont, California)


The late archaeologist Peter Garlake insisted that direct tracing by hand onto clear film was the best technique for recording Zimbabwe's painted rock art. In the chaos that followed the country's independence, the tracings made and commissioned by Garlake disappeared. A lurid tale of the scholar's demise on the streets of London prompted a search for the truth and the missing tracings. What we found reaffirms the value of world class archives but also points to a reassessment of pictograph tracing as a preservation strategy.

David Sucec (BCS Project)

White Figures In Escalante

For several years, the BCS PROJECT has been working to create an inventory of Barrier Canyon style (BCS) images in what we call the Escalante Study Area (ESA). Throughout our study areas, we have found that most painted prehistoric figures are red in hue but, in the ESA, I've been impressed by the comparatively large number of white painted figures. I have seen these figures in the Barrier Canyon and Fremont styles and a good number are in a mixed style, which is almost always a mixture of Barrier Canyon and Fremont motifs. This presentation will show a selection of the white figures and discuss their temporal affiliation and the relationship between the Barrier Canyon and Fremont image-makers.

Kimberly Sumano-Ortega, José Luis Punzo Díaz, and David Arturo Muñiz García (INAH–Michoacán)

Rock Art and Households in Western Mexico: The Case of Chavinda, Michoacán.

Most of the times, rock art is found in sacred places, as a mark on landscape that could be accessible to some members of a certain society, and mostly related to specific rituals or, perhaps as a discourse readable only by knowing the specific code. Nevertheless, we present a case where rock art seems to be directly related to some mark as part of household prestige, more like a social discourse instead of a ritual/sacred one. Chavinda, a small site located in an interchange zone in north/central Michoacán, western México, has been dated to around A.D 425-600 and could be a case in which rock art represents household narratives in daily life as part of canonical strategies of built environment, a public appropriation of landscape.

Charlotte Vendome-Gardner (University of Exeter, England)

The Importance of the Use of Landscape-Based Approaches in Rock Art Research.

In many studies a solely Shamanistic approach to rock art has been used, creating a discourse which fails to acknowledge the context created by the cultural and natural features which surround it. Purely symbolic interpretations which arise from the use of this approach often propose open ended and continuous answers. In short, there is, and will be, no clear answer. By using a landscape-based approach and re-siting the image back into its original context we can begin to establish factual evidence regarding its cultural environment over periods of time. This will allow us to see the many instances in which rock art can be found, and how it may have interacted with past peoples in a variety of situations and ways. This presentation seeks to discuss the importance of the use of a landscape-based approach in rock art research, using the Fluteplayer as an example of its application.
Steven Waller (Rock Art Acoustics)

*Pre-Pottery Neolithic Rock Art of Gobekli Tepe, Turkey*

The monumental megalithic temple at Gobekli Tepe in southern Turkey is decorated with rock art ranging from shallow engravings to bas-relief, high relief, and three-dimensional stone sculptures. There are also numerous cupules in the megaliths as well as the surrounding bedrock. This complex is called “the world’s oldest temple” and has been dated to 8,000–10,000 B.P.E. The rock art images—including anthropomorphs, zoomorphs, and abstract designs—suggest a ceremonial function of the site and sophisticated symbolic thought. The art and its cultural context will be compared and contrasted with other global rock art.

Aaron Wright (Archaeology Southwest)

*The Painted Rock Petroglyph Site: A Historical Overview with Observations on Context*

The Painted Rock Petroglyph Site is the most publically accessible rock art locality along the lower Gila River, and debatably in the entire state of Arizona. A listing on the National Register of Historic Places in 1977 canonized the site’s significance as a place of remarkable cultural heritage value and great scientific potential. Surprisingly, however, a comprehensive site recording of Painted Rock has never been published, and consequently little is actually known about the archaeological context in general and the rock art specifically. This paper addresses the dearth of information in two respects. It first reviews the history of research at Painted Rock to synthesize the information that is currently available. It then takes a closer look at the locality’s landscape setting and feature assemblage in order to examine the rock art’s relevance to surrounding prehispanic communities.

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We wish to thank the following Organizations and Individuals for their support of the 2016 ARARA Conference and for their invaluable assistance in providing field trips for conference participants

**Bureau of Land Management—Las Cruces District**
Bill Childress, Regional Director
Matthew Punke, Three Rivers Contact Station
BLM Volunteers

**Friends of the Organ Mountains–Desert Peaks**

**Chihuahuan Desert Rangeland Research Center,**
Department of Animal and Range Sciences, New Mexico State University
Derek W. Bailey, Professor and Director
Kris Havstad, Jornada Experimental Range
Mary Brown, Graduate Assistant, NMSU

**White Sands Missile Range**
Cammy Montoya, Public Affairs Specialist
Stan Berryman, Archaeologist

**Field Trip leaders:** ALL 42 of them!

Field Trip Assistants
Along the Way

By Margaret Berrier (Marglyph)

One of the best parts of planning for ARARA has been meeting new people in the process. For the last report from Donna Yoder, our terrific registration chair, there were almost 40 first-time conference registrants. This year we are starting something new by giving first-timers a special ribbon on their name tag. I hope you will join me in welcoming them and introducing yourselves. No doubt you will meet some of them at the pre-field trip meeting on Thursday, May 26, at 6:30 p.m. at the Ramada Las Cruces Hotel and Conference Center. A new feature that will take place at that time also will be book signing where two of our long-time ARARA members will be featured with their latest publication.

One of those first-timers will be our banquet speaker David Soules. For you first-timers, the banquet is on Sunday evening and includes a talk, as well as announcements of our ARARA awards for conservation, education, etc. David is a conservationist and a proponent of our Organ Mountains-Desert Peaks National Monument, and was one of the many hardworking folks who helped get the monument designation. David’s talk will be on the making of the monument, and will include descriptions and photos of some of the Native American rock art, as well as other features of the monument including the Butterfield Trail, caves that sheltered prehistoric people and fauna, Billy the Kid’s hideout at Outlaw Rock, and much more. David is a hard-core hiker who completed the John Muir Trail with his wife, has extensively hiked the surrounding areas, and even found small new sites that he is helping us record. On top of that, he is a terrific speaker. Join us for that talk and award announcements. I know that Troy Scotter and a team of others have been reviewing some tough choices for awards this year.

Tania Ryan has been working on the incredibly difficult job of sorting out field trip participants. If you don’t believe me, volunteer to help with this at one of the next ARARA conferences. Luckily for ARARA, we have had many members step up for field trip leader duties this year. Over half of our field trip leaders are from out of state, and that doesn’t just include those from El Paso, Texas. URARA regulars Diane Orr and Glenn and Margaret Stone all traveled from Utah to Las Cruces in February so that they would be able to lead folks on adventures. While the Stones were here, we conducted field trip training with first-time field trip leaders Mark Wille, an El Paso art teacher, and Brian Halstead, a Lincoln National Forest archaeologist. Hiking up the two-mile trek thru Lucero Canyon, Mark found a small area of glyphs we didn’t know about. Mark and Brian have helped me in recording new rock art sites using the state standards. Hoping to find additional victims—er, I mean recruits—for future projects.

One of our field trip leaders for Broad and Valles canyons really fell in love with the two canyons, and has returned to study the archaeology and ecology of the area. He has traveled with his botanist wife more than 2,100 miles already. Besides showing the rock art, they hope to engage their field trip participants in a discussion of the prehistoric environment, how humans adapted to this environment, and also how humans adapted to climate change. I am hoping that they love the area enough to help with the long-term recording of the archaeological treasures of our monument.

The Las Cruces Bureau of Land Management continues to be supportive of the conference. Some of their employees and volunteers will be field trip leaders, and they decided to plan the opening of the new Visitors Center right before the conference. Helen Crotty, who was one of the main leaders of the complete recording of Three Rivers, will be traveling to Las Cruces for that event as well as the conference. We hope some of you, especially those who helped with this recording, join us!

I wish I had time and space to thank all of the great people who are helping. Please take the time to thank your field trip leaders and everyone else involved. The conference would be boring without them.

If you are able to dally a little at the end of the conference, take a hike at Dripping Springs to La Cueva and use DStretch to clarify the giant atlatl thrower pictograph, or head over the mountains to White Sands.
In Memoriam
William Breen Murray
1940-2016

By Ken Hedges

It was with shock and great sadness that we learned recently of the death of William Breen Murray, long-time member of ARARA, Editor of La Pintura, and esteemed scholar of northeast Mexican rock art. Death came on the evening of March 30 as the result of a stroke suffered the night before. Breen was a close friend and valued colleague, and he will be sorely missed.

Breen was born on March 1, 1940, to John and Evangeline Murray of Chicago, Illinois, and grew up in the Chicago suburb of Oak Park. In 1954 he began studying Spanish as his second language, and in 1960 he went to Chile as an exchange student. Breen graduated from Carlton College with a History major in 1962. In 1972 Breen received his Master’s Degree, followed in 1980 by his PhD, both in Anthropology from McGill University in Montreal.

In 1973 Breen went to the University of Monterrey in Nuevo León as a visiting professor, returning to McGill in 1975 to begin his doctoral work as a researcher in the Osler Library. In 1976 he joined the faculty of the University of Monterrey as Professor of Anthropology, serving as the head of the Department of Social Sciences from 1978 to 1992. In 2014 Breen was named Professor Emeritus of the university with commendation “for his exceptional career, dedication, and tireless work as a professor.” Breen is well known in Mexico and the U.S. as a mentor of students beginning their research careers in rock art. In 2009 he was honored by students of the Escuela Nacional de Antropología and the Universidad Nacional Autónoma de México in Mexico City.

Breen joined ARARA in 1978. He published his first rock art article in 1979 and his first paper in American Indian Rock Art in 1982. In 1987 he was awarded the Capitán Alonso de León medal of Historic Merit, and in 1988 he received the Castleton Award for Excellence in Rock Art Research for his paper “Antlers and Counting in Northeast Mexican Rock Art.” Breen is the editor of Arte Rupestre del Noreste (1987), co-editor of several volumes, and author of nearly 100 papers on rock art, archaeology, general anthropology, and ethnology. He has been participant and organizer for numerous international conferences, most recently the IFRAO Congress in Cáceres, Spain, in September 2015, and the III Coloquio de Arqueología, Paleontología y Antropología del Noreste de México in October 2015, where he was honored for his work as an investigator of national rock art patrimony.

Breen took on the role of Editor of La Pintura in 2005, using his broad network of rock art contacts to provide stimulating content for his readers. He served on the ARARA Board from 2005 to 2008, and as a member of the board of advisory editors for Archaeoastronomy since 1998.

Rock art and archaeoastronomy represent a small portion of Breen’s interests. He began his anthropological career with fieldwork among the Inuit of northern Canada in 1972 and has conducted research in the areas of medical anthropology, archaeoastronomy, rock art, archaeology of northeast Mexico, and ethnography of the Rarámuri (Tarahumara). He was also a dedicated stamp collector, focusing on postage stamps featuring rock art around the world. Those interested in his life and the many facets of his career and personality can visit the online blog at http://williambreenmurray.blogspot.com/.

We are saddened by his death, but Breen’s presence will be with us for many years to come, and his influence will remain strong, both in the fields of his research and in the lives of those touched by his kindness, dedication, and support.
Letters to the Editor


It was with great satisfaction that I read the review on the book I co-edited with Tim Darvill that La Pintura kindly published. It is a fair and balanced piece of work by Jannie Loubser.

However, there are some issues in the review, with reference to Chapter 1, which I co-wrote with Tim Darvill.

1. It is stated in the review: "Furthermore, what constitutes an open-air rock art site is not spelled-out, on odd oversight considering that the editorial volume contains examples (...)" (p. 12, 2nd paragraph).

However, we did spell out what constitutes an open-air rock art site: "By definition, open-air sites comprise all rock-art that exists outside of caves or the enclosed spaces within constructed monuments, which possess very specific conservation and management issues related mainly to the disruption of the delicate environmental equilibrium associated with opening sites to the public. In general, open-air rock-art sites comprise panels that exist on exposed rock surfaces that are open to the sky, including natural cliff faces, exposed rock outcrops, earthfast boulders, and glacial erratics. A case can also be made for including decorated rocks incorporated into built structures where these were originally or have become exposed to the sky such as with the rock-art panels found on some of Europe's well-known megalithic tombs or the carved faces of stelae and standing stones. Not included in this book or elsewhere in the literature on open-air rock-art is a discussion of the wealth of inscriptions, dedications, and ornamentation cut into the walls of monumental structures associated with classical civilizations the world over, although it is recognized that these do share some conservation and management issues with what is traditionally defined as rock-art" (Darvill and Fernandes, p. 3).

I believe we have sufficiently covered in this paragraph what we think constitutes such a site, thus not an 'odd oversight.'

2. It is stated in the review: "they do not mention, for example, useful earlier publications on open-air sites in Australia and beyond (e.g., Pearson and Pretty 1973, Thorn and Brunet 1995, Ward and Ward 1995)" (p. 12, 2nd paragraph). However, we did reference Ward and Ward's (1995) Management of Rock Art Imagery (Darvill and Fernandes, p. 16), and if not the Pearson and Pretty 1973 publication, another edited by Pearson (1978), Conservation of Rock Art (Darvill and Fernandes, p. 15), which we believe to be more significant to the scope of this volume than Pearson and Pretty (1973, Proceedings of the National Seminar on the Conservation of Cultural Material). Comprising some 100 references, we believe that the bibliography section of Chapter 1 has sufficiently covered all major references on the topic.

3. Ensuing from the last point, the main idea in paragraph one of the review is stated in a misleading fashion: "Co-editors Darvill and Fernandes claim in the Preface (page 1) that the conservation and management of open-air rock art sites are less studied and published than rock art found within dark zone caves and rockshelters. According to them, the aim of their edited volume is to redress this perceived imbalance by presenting recently completed work at open-air rock art sites. Though it is admittedly difficult to thoroughly evaluate their claim that more conservation and management work has been published for dark zone caves than for rock art in open settings, they do not mention..." (p. 12, 1st and 2nd paragraph).

Indeed, the reviewer has not been able to establish that what he perceives to be our "claim" is claimable or not, mostly because the following assertion that we "do not mention, for example, useful earlier publications on open-air sites in Australia and beyond" is, as I noted in 2, not quite accurate. I believe I have demonstrated these are issues that deserve a reply or corrections, although as I said above, the review is a fair and balanced piece of work.

António Batarda Fernandes, Received February 25, 2016

Response to Fernandes' Comment

My comment on the definition of "open" sites really revolves around the presence/absence of driplines. In terms of rock weathering and conservation it makes quite a difference if pictograph and/or petroglyph surfaces are protected by a dripline, such as found above rockshelters and/or created by slightly overhanging rock faces. Basically, rock surfaces exposed to direct rain tend to suffer more from water erosion than those experiencing infrequent water flow and/or water splatter. Also, graffiti removal discoloration of surfaces without driplines are more difficult to permanently camouflage with earth pigments than those protected by driplines. Yet, there are remarkable exceptions where "open" pictographs and petroglyphs have survived the destructive power of direct rain and other forms of frequent surface water flow. Whatever the erosional (exterior destruction caused by surface water and wind) and weathering (internal chemical and physical deterioration caused by water and salts) forces might be, rock art sites with driplines seem to have better chances of survival than those without. Also, human movement and the channeling of visitor movements tend to be different at "open" sites than at those with driplines.

Jannie Loubser, Received February 29, 2016
THE Hensler petroglyph site (47DO461) in Dodge County, Wisconsin, was discovered on a quartzite formation in 1985 by geologists searching for materials to reinforce the shoreline of Lake Michigan. It came to the attention of archaeologists soon after and was initially reported in 1987 (Steinbring and Farvour 1987). In 2005 an intact archaeological component was discovered immediately adjacent to the engravings, and excavations have continued since that time. Projectile point typology from the excavations made it clear that the site was occupied at least 9,000 years ago (Steinbring 2015). In 2014, a 3.5-m-long trench (Figure 1) in the western zone of the site yielded a large circular pattern of spalling (Figure 2) beneath a mantle of aeolian sediment (loess). This would appear to be the result of an ancient campfire.

Numerous evidences of engraving activity have been discovered on the bedrock beneath the excavations over the years (Steinbring 2014:34). However, the eastern zone of the site is shallow and susceptible to perturbation. Several attempts at radiocarbon dating had failed because the site had been used for pasture for many decades.

Consequently, it was determined that optically stimulated thermoluminescence (OSL) might be an appropriate alternative dating technique. This is because it is not dependent upon organics. Samples were taken in May 2015, and submitted to the Luminescence and Geochronology Laboratory at the University of Nebraska. Results of these tests were obtained in December 2015.

Two samples were submitted (Figures 3 and 4), one from Level 13 and another from Level 22 in unit W7S3. The date for Level 13 is 5730 B.P., and the date for Level 22 is 9500 B.P. Both dates are from the aeolian sediments which contain cultural levels yielding Early to Middle Archaic materials. Since there are two more levels below the Level 22 date, it is estimated that the level of the surface of the underlying bedrock will be approximately 10,340 B.P. This provides a minimum date for the petroglyphs pecked into the bedrock beneath the aeolian sediments.

Most of the large circular pattern of spalls has been exposed, sufficient at least to convey a good idea of its nature. It is approximately 37.0 cm in maximum diameter. Field microscopy will be undertaken during the 2016 season to determine whether the spalling is the result of human intervention. Angular detachments similar to this spalling are known for petroglyphs in Siberia where they represent an animal coat (Devlet 2012:119).

There are other evidences of substantial antiquity for the engravings at Hensler. Among newly discovered petroglyphs on the main panel, one appears to be camelid (Figure 5); others are more eroded. Ancestors of the guanaco, which survived the Pleistocene in South America, are reported to have become extinct in North America as late as 9000 B.P.
There are also several projectile point images on the main panel which could be interpreted as Clovis-like or Page-Ladson (Anderson et al. 2015:8). Present also may be Early Triangular and Miller Lanceolate forms, presumably dating to before 13,250 cal B.P. Since petroglyphs are only two-dimensional, details like flutes, thickness, flaking patterns, etc. are not determinable. Point styles from the excavations do include re-worked early types, but none that would convincingly represent these very early types.

A date of 10,340 B.P. for the campfire in unit W8S3 is unexpected, but the thermoluminescence dates from positions above it are entirely consistent with the archaeology and stratigraphy of the site. In fact, the aeolian deposits probably started to accumulate as early as 15,000 B.P. at this location in Wisconsin (Syverson and Colgan 2011). This windblown material is associated with glacial recession. It can be blown away, and re-deposited extensively. The dates from it at Hensler may only reflect the remains of an early re-deposition. Hopefully, further excavation will illuminate this issue.

References Cited


## Treasurer’s Report
Respectfully submitted, Jack Wedgwood, Treasurer  
May 5, 2016

### Income and Expense Statements

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| <strong>Total Awards</strong>     | <strong>$2,445.12</strong>        |                      |
| Bank Fees            |                      |                      |
| PayPal Fees          | 128.79               |                      |
| Bank Fees - Other    | 39.16                |                      |
| <strong>Total Bank Fees</strong>  | <strong>$167.95</strong>          |                      |
| Conference Expenses  |                      |                      |
| Accommodations       | 3,385.80             | 2,623.67             |
| Auction              | 75.00                | 0.00                 |
| Banquet Entertainment | 2,800.00             | 0.00                 |
| Conference Food      | 7,714.70             | 13,526.70            |
| Copying &amp; Printing   | 0.00                 | 886.72               |
| Field Trips          | 74.00                | 0.00                 |
| Honoraria            | 1,000.00             | 0.00                 |
| Meeting Room         | 350.00               | 0.00                 |</p>
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<th>536.50</th>
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<td>Total Conference Expenses</td>
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<td>$17,894.79</td>
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<td>Deposit Refunds</td>
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<td>Directors &amp; Officers</td>
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<td>Total Insurance</td>
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<tr>
<td>Office &amp; Administrative</td>
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<td>Mid-Year Board Meeting</td>
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<td>Accommodations</td>
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<td>1,295.84</td>
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<td>290.04</td>
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<td>Other</td>
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<td>Refreshments &amp; Food</td>
<td>651.53</td>
<td>385.13</td>
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<td>Transportation</td>
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<td>1,437.99</td>
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<td>Total Mid-Year Board Meeting</td>
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<td>Gifts and Memorials</td>
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<td>Total Office &amp; Administrative</td>
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<td>Other (Misc.)</td>
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<td>Conservation</td>
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<td>Education</td>
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<td>Transfer from IFRAO account</td>
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<td><strong>TOTAL EXPENSES</strong></td>
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**Net Gain / (Loss)**

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<th></th>
<th>As of December 31, 2014</th>
<th>As of December 31, 2015</th>
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<tbody>
<tr>
<td><strong>Net Gain</strong></td>
<td>$5,802.42</td>
<td>$8,950.50</td>
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**Balance Sheets**

**ASSETS**

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<th>As of December 31, 2014</th>
<th>As of December 31, 2015</th>
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</thead>
<tbody>
<tr>
<td>Current Assets</td>
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</tr>
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<td>Checking Account</td>
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<tr>
<td>Certificates of Deposit</td>
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<td>88,494.39</td>
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<tr>
<td><strong>Total Current Assets</strong></td>
<td>$144,650.63</td>
<td>$153,601.13</td>
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</tbody>
</table>

**LIABILITIES & EQUITY**

<table>
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<tr>
<th></th>
<th>As of December 31, 2014</th>
<th>As of December 31, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
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<tr>
<td>Opening Balance Equity</td>
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<td>144,650.63</td>
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<tr>
<td>Net Income</td>
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<td>8,950.50</td>
</tr>
<tr>
<td><strong>Total Equity</strong></td>
<td>$144,650.63</td>
<td>$153,601.13</td>
</tr>
</tbody>
</table>
AMERICAN ROCK ART RESEARCH ASSOCIATION BYLAWS

Proposed Changes to Article XIII, Section 1: Awards Committee

The Awards Committee has proposed changes to its governing Bylaw, Article XIII, Section 1. The Board of Directors endorses and supports the proposal. The purpose of the proposed changes is twofold:

1. To acknowledge two awards, the Oliver Rock Art Photography Award and the Keepers of the Gate Award, which have been duly established by ARARA.
2. To separate operational information (such as the details of the nomination process for each award) from the governance function (such as the charge to the committee and the purpose of each award) in the Bylaws. In conjunction with this proposal, the Awards Committee developed an operational document with more detailed process information; this will be maintained on the ARARA website.

This proposal will be considered and voted on at the annual Business Meeting in Las Cruces, New Mexico, on Sunday, May 29, 2016.

Only the Article and Section of the Bylaws with proposed changes are shown below; all other Articles and Sections remain unchanged. Additions are shown with underline; deletions are shown with strike out. A version of Article XIII, Section 1 showing the full text as proposed follows the underline/strike out version.

ARTICLE XIII: Committees

Section 1. Awards Committee

The Awards Committee shall consist of Chair and at least two (2) voting members in good standing in ARARA. The Committee shall issue a call for nominations for the Castleton, Wellman, Conservation, Education, Rock Extraordinary Achievement awards, and any other awards duly established by the organization, to the membership of ARARA in La Pintura, on ARARA Online, or in another manner deemed appropriate by the Awards Committee with permission of the Board. The Committee will determine, in accordance with the awards determination process, which Awards, if any, will be presented at the Annual Meeting of ARARA. The Board will approve all awards, the process for determination of a recipient, and the recipients. The Committee shall choose, with Board consent, appropriate prizes for each category of approved Awards. The Committee shall make a report of the Awards at the Annual meeting and in a subsequent issue of La Pintura. The Awards Committee shall prepare a budget request for committee expenses to be presented to the Board at the time the President calls for Committee Budget reports.

The Awards Committee shall review candidates and recommend for Board approval recipients for the following awards and any other awards duly established by the organization:

(a) Klaus Wellman Award — This award is for distinguished service in the field of Rock Art research, conservation, and education. No less than five voting members in good standing in ARARA shall sign the nomination for this Award. The nominations will be accepted any time prior to an established and published deadline before the Annual Meeting. The Awards Committee shall decide if the Award is to be presented at the Annual Meeting. The Board will affirm the nominee selected by the Awards Committee.

(b) Castleton Award — This competitive award shall be for excellence in an original essay in heretofore unfunded Rock Art research. The recipient shall make a thirty (30) minute presentation on the research at a time selected by the Board in conjunction with the Annual Meeting. A letter of application and five copies of the presentation shall be received by an established and published deadline before the Annual Meeting. The Awards Committee shall decide if the Award is to be presented at the Annual Meeting. The Board will affirm the nominee selected by the Awards Committee.

(c) Conservation and Preservation Award — The Conservation and Preservation Award nomination shall be for to a professional or vocational individual (professional or vocational), group, organization, or agency that has taken a leadership role in significantly contributing to the promotion of Rock Art conservation or protection. Candidates for this award are reviewed jointly by the Conservation Committee. The nomination shall include a detailed description of the work that qualifies the nominee for the award. The nominations will be accepted any time prior to an established and published deadline before the Annual Meeting. The Awards Committee shall decide if the Award is to be presented at the Annual Meeting. The Board will affirm the nominee selected by the Awards Committee.

(d) Education Award — The Education Award nomination shall be for to a professional or vocational individual, group, organization, or agency that has made a scientific or an artistic contribution through lesson plans or programs that include the visual arts and/or creative writing or creates educational materials (e.g., films, handouts, or books). Candidates for this award are reviewed jointly by the Education Committee. Nominations will be accepted any time prior to an established and published deadline before the Annual
Meeting. The Education Committee in cooperation with the Awards Committee will review nominations for the Education Award and make a recommendation to the Awards Committee. The Board will affirm the nominee selected by the Awards Committee. This award is privately funded, and if donated funds are not available, ARARA may choose not to make the award that year.

(e) Frank and A.J. Bock Extraordinary Achievement Award – The ARARA Board may present the Frank & A.J. Bock Award for Extraordinary Achievement from time to time to candidates with to an individual for extraordinary achievements over their his/her lifetime in the fields of rock art studies, documentation, education, conservation, and outreach. Nominations will be accepted any time prior to an established and published deadline before the Annual Meeting. The Board will affirm the nominee selected by the Award Committee.

(f) Oliver Rock Art Photography Award for excellence in the art and science of photography in the service of the study and appreciation of rock art.

(g) Keepers of the Gate Award to recognize private landowners who have protected rock art sites on their property or that require access through their property. Nominations are handled by the Awards Committee in consultation with the Local Chair for each annual conference.

Version of Article XIII, Section 1 showing the full text as proposed. This is how Article XIII, Section 1 will read if this proposal is approved at the Business Meeting on May 29, 2016.

ARTICLE XIII: Committees

Section 1. Awards Committee
The Awards Committee shall consist of Chair and at least two (2) voting members in good standing in ARARA. The Committee shall issue a call for nominations for awards duly established by the organization, to the membership of ARARA in La Pintura, on ARARA Online, or in another manner deemed appropriate by the Awards Committee with permission of the Board. The Committee will determine, in accordance with the awards determination process, which Awards, if any, will be presented at the Annual Meeting of ARARA. The Board will approve all awards, the process for determination of a recipient, and the recipients. The Committee shall choose, with Board consent, appropriate prizes for each category of approved Awards. The Committee shall make a report of the Awards at the Annual meeting and in a subsequent issue of La Pintura. The Awards Committee shall prepare a budget request for committee expenses to be presented to the Board at the time the President calls for Committee Budget reports.

The Awards Committee shall review candidates and recommend for Board approval recipients for the following awards and any other awards duly established by the organization:

(a) Klaus Wellman Award for distinguished service in the field of rock art research, conservation, and education.

(b) Castleton Award for excellence in heretofore unfunded rock art research.

(c) Conservation and Preservation Award to a professional or vocational individual, group, organization, or agency that has taken a leadership role in significantly contributing to the promotion of rock art conservation or protection. Candidates for this award are reviewed jointly by the Conservation Committee.

(d) Education Award to a professional or vocational individual, group, organization, or agency that has made a scientific or artistic contribution through lesson plans or programs that include the visual arts and/or creative writing or creates educational materials (e.g., films, handouts, or books). Candidates for this award are reviewed jointly by the Education Committee.

(e) Frank and A.J. Bock Extraordinary Achievement to an individual for extraordinary achievements over his/her lifetime in the fields of rock art studies, documentation, education, conservation, and outreach.

(f) Oliver Rock Art Photography Award for excellence in the art and science of photography in the service of the study and appreciation of rock art.

(g) Keepers of the Gate Award to recognize private landowners who have protected rock art sites on their property or that require access through their property. Nominations are handled by the Awards Committee in consultation with the Local Chair for each annual conference.
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:

- 2016 Issue 3: July 15, 2016
- 2016 Issue 4: October 15, 2016
- 2017 Issue 1: January 15, 2017
- 2017 Issue 2: April 15, 2017

Send all materials for inclusion in La Pintura to:
Amy Gilreath, Interim Editor
ajgwinters@yahoo.com

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 $25 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 $25 made out to ARARA to:
Donna Gillette
1147 Vaquero Way
Nipomo, CA 93444-6657
donna@dgillette.com

La Pintura is the official newsletter of the American Rock Art Research Association. Subscription to this publication is a benefit of membership in ARARA. Back issues of La Pintura are available electronically on the ARARA website, http://www.arara.org.

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

Membership
For all Membership matters, including new and renewal memberships (see full membership information on inside back cover), replacement of undelivered issues of La Pintura, and corrections or changes in membership information and addresses, contact:

ARARA Membership
Donna Yoder
2533 W. Calle Genova
Tucson, AZ 85745-2526
donnayoder@cox.net

La Pintura Editorial Matters
For editorial matters relating to La Pintura, including letters and articles for publication (see guidelines on inside back cover), preferred contact is by e-mail:

Amy Gilreath, Interim Editor
ajgwinters@yahoo.com

If necessary, postal mail for the La Pintura Editor may be sent to:

ARARA
Attn: Interim Editor, La Pintura
Amy Gilreath
456 Russell Street
Winters, CA 95694

For matters regarding production of La Pintura, contact:

Amy Gilreath
ajgwinters@yahoo.com

For All Other Correspondence
The official mailing address for ARARA is:

ARARA
c/o Jack Wedgwood
1884 The Alameda
San Jose, CA 95126-1733
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 January 1 through December 31 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. Send memberships to:

ARARA Membership
Donna Yoder
2533 W. Calle Genova
Tucson, AZ 85745-2526

e-mail: donnayoder@cox.net

http://www.arara.org

La Pintura is published by the American Rock Art Research Association. All Editorial material for La Pintura should be sent via e-mail to the Interim Editor, Amy Gilreath, at ajgwinters@yahoo.com. Opinions expressed in signed articles are those of the authors and do not necessarily represent the views of the American Rock Art Research Association. La Pintura solicits articles, news, letters to the editor, and other items of interest to its readers. Please observe the following criteria for all manuscripts submitted. Letter to the Editor: No special format necessary. News Items: Please indicate all pertinent information such as the event, time, place, cost (if any), group or person in charge, who to contact, addresses, and deadlines. Articles: Manuscripts of original research are always welcome. They should embrace sound principles of investigation and present data in a clear and concise manner. Consult the ARARA Style Guide at arara.org/documents/arara_style_guide.pdf for proper formats for body copy, citations, and References Cited. Articles are subject to editing for length. Please submit all materials intended for publication via e-mail (ajgwinters@yahoo.com). Please include author's name, title or profession, affiliation, city, state, and return e-mail address. Send illustrations as e-mail attachments. Submit line drawings as 1200dpi bitmap.tif files and black-and-white or color photographs as 300dpi high-quality-level.jpg images. Materials that cannot be e-mailed may be sent to the mailing address: ARARA, Attn: Amy Gilreath, 456 Russell St., Winters, CA 95694. Current Events: Current events and news items of interest to our members that need public notice prior to the next issue of La Pintura should be submitted to araraonline@googlegroups.com for inclusion in ARARA's monthly electronic newsletter “ARARA Online.”

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 archaeological 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.

ARARA Officers & Board

President: Diane Hamann
Vice-President: Sandy Rogers
Secretary: Jennifer Huang
Treasurer: Jack Wedgwood
Conference Planner: Donna Gillette
Board Members: Ann Brierty; Troy Scotter; Scott Seibel; Karen Steelman

e-mail: ARARABoard@gmail.com

ARARA Style Guide

ARARA, American Rock Art Research Association, subscribes to 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.

http://www.arara.org

La Pintura is published by the American Rock Art Research Association. All Editorial material for La Pintura should be sent via e-mail to the Interim Editor, Amy Gilreath, at ajgwinters@yahoo.com. Opinions expressed in signed articles are those of the authors and do not necessarily represent the views of the American Rock Art Research Association. La Pintura solicits articles, news, letters to the editor, and other items of interest to its readers. Please observe the following criteria for all manuscripts submitted. Letter to the Editor: No special format necessary. News Items: Please indicate all pertinent information such as the event, time, place, cost (if any), group or person in charge, who to contact, addresses, and deadlines. Articles: Manuscripts of original research are always welcome. They should embrace sound principles of investigation and present data in a clear and concise manner. Consult the ARARA Style Guide at arara.org/documents/arara_style_guide.pdf for proper formats for body copy, citations, and References Cited. Articles are subject to editing for length. Please submit all materials intended for publication via e-mail (ajgwinters@yahoo.com). Please include author's name, title or profession, affiliation, city, state, and return e-mail address. Send illustrations as e-mail attachments. Submit line drawings as 1200dpi bitmap.tif files and black-and-white or color photographs as 300dpi high-quality-level.jpg images. Materials that cannot be e-mailed may be sent to the mailing address: ARARA, Attn: Amy Gilreath, 456 Russell St., Winters, CA 95694. Current Events: Current events and news items of interest to our members that need public notice prior to the next issue of La Pintura should be submitted to araraonline@googlegroups.com for inclusion in ARARA's monthly electronic newsletter “ARARA Online.”

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