

Double Issue

Membership Year 2023
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La Pintura

The Official Newsletter of the American Rock Art Research Association
Member of the International Federation of Rock Art Organizations
<https://arara.wildapricot.org>

In Person Again! 2023 Conference in Tucson, Arizona!



Above: One of Friday's field trips to a Hohokam petroglyph and bell-rock site.

Right: The March weather could not have been better for our field trips.

Both photos by Bruce Liddil.

INSIDE this special conference wrap-up issue, please find photos of the conference speakers, award recipients, and field trips (and, of course, rock art); our President's message; committee reports; a book review; a memorial; and more.

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President's Message

FIRST, thanks to all who attended the 49th Annual Conference in Tucson, as you truly made the conference a success. I enjoyed seeing you all, old friends and new ones. If we missed you, I hope that you can plan to attend the 50th in Farmington, New Mexico. Plans are beginning to make it a spectacular event. The tentative dates are May 17–20, 2024.

Second, I want to ask everyone to personally thank those who worked hard to make the annual conference in Tucson a success. It took a lot of time from many people, and they have graciously served our association. I recognize those most involved below:

- Hearty thanks to Donna Gillette, who served as the conference coordinator, sharing her expertise and experience;
- A special thanks to Aaron Wright, the local chair and his team of field trip leaders, the local Indigenous peoples, the land management organizations, the field trip organizers, the city of Tucson, and the private landowners who have granted permission for ARARA members to visit rock art in this beautiful landscape;
- Indigenous Blessing: Samuel Fayant, Tohono O'odham Nation Cultural Specialist;
- Troy Scotter, the person who does so very much behind the scenes with registration and answering the questions from attendees, in addition to the Treasurer's duties;
- Amanda Castañeda and Larry Loendorf, who put together a wonderfully inclusive program;
- Margaret Berrier, as a steady hand on the planning committee that guided our work with useful minutes, in addition to keeping Facebook active;
- Kim Jurik, who prepared the registration materials and gracefully attended to the registration;
- Ken Hedges, Amy Gilreath, and Linda Hylkema for their fine work on publications and the conference program;
- Dave Kaiser for the professional audio-visual work and his work in the Online Committee, as well as Publications;
- Evelyn Billo and the fine team who put together the auction, and all the great folks who donated items;
- Peter Anick, Anne Stoll and the Awards Committee for putting together the Awards ceremony;
- Linea Sundstrom and the Conservation Committee for representing ARARA through the public comments process;
- Margaret Berrier for organizing the vendor room;
- Tim Dodson and committee members for the Education Awards;
- Program Special Speakers: Polly Schaafsma and Julio Amador Bech;
- Volunteer Coordinator Teresa Saltzman;

- Entire ARARA Board of Directors for their help in so many supportive ways.

Many people 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!

The following ARARA committees could surely use your help as a member or a chair for the upcoming year. Become a dedicated ARARA volunteer by serving on the Archives, Awards, Conservation, Education, Membership, Publications, or Website Committee. This is a great way to get involved and help with the education and conservation of rock art. If you are interested, or just have questions about what the duties might entail, please email Linda Olson (laolson@srt.com), any board member, or use the “contact us” query from the website.

Please personally thank the people currently serving on the board and those who are leaving their board terms (but not their dedication and hard work in support of ARARA's mission): Margaret Berrier, Amy Gilreath, and David Kaiser. I am grateful for their dedication and look forward to their continuing involvement in ARARA's mission. Also make time to welcome the incoming board members and personally thank them for their willingness to serve ARARA: Kirk Astroth, Amanda Castañeda, Tim Dodson, and Teresa Rodrigues and Anne Stoll. Thank the past committee chairs and all who work to make ARARA a successful organization.

As a volunteer-based organization, our members—each of you—step forward to volunteer to keep this organization dynamic and responsive to the needs of the field. I also ask you to reach out to your rock art friends to invite them to continue to be involved in this worthy cause. Please also consider how you can serve rock art preservation. Because of you, ARARA exists. You enable us to work together to research, educate, and conserve rock art. ARARA needs and wants you to join us and bring your talents, expertise, and dedication to serve on ARARA's committees: from sharing in your joy of discovery, finding how you can take action locally, educating yourself to become a successful advocate for rock art, to taking part in ARARA activities to further rock art protection, conservation, and education for those who are only beginning their rock art journey. Thank you for helping the organization fulfill its mission “to communicate to a broad audience the significance of rock art as a non-renewable resource of enduring cultural value and an important expression of our shared cultural heritage.” ☀

Respectfully submitted,
Linda Olson, ARARA President

Board of Directors Conference Meeting, Held In Person in Tucson, March 9, 2023

Board Members Present:

Linda Olson, President
Peter Anick, Vice-President
Karen Steelman, Secretary
Troy Scotter, Treasurer
Amanda Castañeda, Member
David Kaiser, Member
Margaret Berrier, Member
Amy Gilreath, Member

I. Welcome / Roll Call / Introductions

The meeting was scheduled in-person on March 9, 2023 from 8:30 am to 4:30 pm in Tucson, Arizona with Linda Olson presiding. All board members were in attendance.

II. Approval of Agenda

Margaret motioned that we approve the agenda.
Dave seconded. No discussion.
All in favor and the agenda was approved.

III. ARARA Board Code of Conduct review

IV. Organization Chart Review

We reviewed the Organizational Chart and the Code of Conduct for Board Meetings.

V. President's Report

VI. Vice President's Report

VII. Secretary's Report

- a. Approve meeting minutes

Dave motioned that we approve the February 20, 2023 minutes with the addition of a report of awardees from the Awards Committee.

Peter seconded the motion.
No discussion. All in favor.

The motion passed unanimously as stated.

- b. Structure for future meetings.

Margaret motioned that we publish Board meeting minutes in ARARA's La Pintura newsletter.

Amy seconded the motion.

Discussion: Official minutes will contain agenda, motions, and official discussion.

All in favor.

The motion passed unanimously as stated.

VIII. Treasurer's Report

Troy Scotter gave a report that will appear in an upcoming issue of La Pintura newsletter.

IX. Standing Committees

The Board reviewed the activity of each standing and ad hoc committee. All committee reports discussed will be included in the La Pintura newsletter.

- a. Archives Committee
- b. Publications Committee
- c. Conservation Committee
- d. Membership Committee
- e. Conference Coordinator
- f. Awards Committee
- g. Education Committee
- h. American Rock Art grant stipulation discussion
Amanda will discuss with Education Committee.
- i. Nominating Committee

X. Ad Hoc Committees

- a. Marketing Committee
- b. Online Lectures Committee
- c. Website Committee

XI. Business

- a. Treasurer, Review and approve financial statements
- b. Domain name alternatives for website

Peter motions that we purchase the ARARAweb.org domain name for 1-year while we sort out the ownership of www.arara.org.

Troy seconded the motion.

Discussion: We will attempt to obtain the url of www.arara.org. If we are unsuccessful, Ken has agreed to donate rockart.us domain name. However, we would prefer to have ARARA in the url name. Also, we may need a second url for document storage.

All in favor.

The motion passed unanimously as stated.

- c. Bylaws Adjustment Discussion
 - i. AIRA digital for international members
 - ii. Discussed the future of AIRA publishing
 1. Financial implications
 2. Storage implications (old AIRAs also)
 - iii. Lifetime memberships

Linda thinks it is time for us to form a bylaws ad hoc committee to explore some of these issues.

- d. Review membership categories

Lifetime membership: We decided not to pursue, due to costs to both members and the organization. Recurring payments: We are considering how this might work.

- e. Iron Mountain rate increase

We originally paid \$199.95/month for storage of the ARARA Archives materials with the private company, Iron Mountain. These fees increased in October to \$252.97/month.

ARARA Members Business Meeting Minutes Sunday, March 12, 2023

I. Call to Order—President Linda Olson

The meeting was scheduled in-person at 8:00 AM in the Catalina Ballroom of the Sheraton Hotel & Suites in Tucson, Arizona during the 2023 ARARA Annual Conference. ARARA President Linda Olson presided.

II. Officer's Report

Each Board Officer gave a report to the membership that will be included in *La Pintura* newsletter.

- a. President, Linda Olson
- b. Vice President, Peter Anick
- c. Secretary, Karen Steelman

Robert Mark motioned that we approve the 2022 Members Business Meeting minutes published in *La Pintura*, Volume 48(2), 2022.

Linea Sundstrom seconded the motion.

No discussion.

All in favor and the motion passed as stated.

- d. Treasurer, Troy Scotter Linea

Sundstrom motioned that we approve the financial statements provided by the Treasurer. Sharon Urban seconded the motion.

No discussion.

All in favor and the motion passed as stated.

III. Committee Reports

Committee Chairs gave a report to the membership that will be included in *La Pintura* newsletter. Questions and comments from the membership are included below.

Vice President Peter Anick stated that the committees are active, but we still need more membership involvement. *Committees that especially need volunteers are: Awards, Conference, Conservation, and Membership. The Board is also seeking volunteers to serve as Chairs for the Awards and Education Committees.*

- a. Standing Committee Reports
 - i. Archives Committee, Diane Hamann
 - ii. Conservation Committee, Linea Sundstrom

Kirk Astroth mentioned a particular comment issue on a railroad construction, as well as an issue with the state of Arizona prohibiting organized archaeological field trips on state lands.

- iii. Education Committee, Tim Dodson

Ellen Martin wondered about materials for elementary students.

- iv. Membership Committee, Troy Scotter

Chris Gralaap asked about where our members are from? Troy will include this information in a future report.

Troy asked attendees about their interest in a recurring payment for membership on January 1. Many seemed interested, so Troy will investigate this process.

- v. Nominating Committee, Aaron Wright

- vi. Publications Committee, Ken Hedges

b. Ad Hoc Committees

- i. Website

Troy answered a question about the field trip registration.

Kirk Astroth volunteered to help Troy with the website.

- ii. Marketing

- iii. Online Lectures

IV. Conference Report

ARARA will be having our next annual conference in Farmington, NM where the very first conference was held to celebrate our 50th anniversary as an organization.

Evelyn Billo wanted us to think of the 50th anniversary as a beginning and celebration.

The Board thanks those who have already stepped forward to help with next year's conference, and we seek additional volunteers. Here's to the next 50 years!

V. New Business

A call was made for three volunteers from the floor to serve on next year's Nominating Committee to be voted by the members present at this Members Business Meeting.

Evelyn Billo made a motion to accept Diana Hamann, Aaron Wright, and Polly Schaafsma as members of the 2023-2024 Nominating Committee.

Monica Wadsworth-Seibel seconded the motion.

No discussion.

All in favor and the motion passed as stated.

VI. Adjourn

Amanda Castañeda motioned to adjourn the meeting.

Evelyn Billo seconded the motion.

No discussion.

All in favor and the meeting was adjourned at 9:10 a.m.

*Minutes submitted by Secretary Karen Steelman and approved by the board via email by April 17, 2023. ☼



Conservation Committee Report for 2022-2023

THE ARARA Conservation Committee last reported in May 2021. Since that time, Teddy Stickney resigned as co-chair.

Our initiatives for May 2022 through February 2023 included the following:

Backpack Tag Program:

Approximately four requests for tags were filled since last report, amounting to around 500 tags. The tag lists (with pictographic icons) do's and don'ts for visiting archaeological sites and asks site visitors to report any new damage observe by visiting the ARARA web site. A QR code on the tag brings people directly to our web site. The web site has a form to collect details and photos of the damage. A volunteer will then send the reports along to the appropriate state or federal land-management agency for further action. So far, we have not received any damage reports.

We assisted with the **ARARA** booth at the annual meetings of the Society for American Archaeology in April 2022 in Chicago and April 2023 in Portland. We developed a flier about the backpack tags, as well as a postcard with a list of other resources available for rock art site managers and visitors.

No significant changes have taken place in federal policies that affect rock art sites protection since our last report. The **Safeguard Tribal Objects of Patrimony (STOP)** Act was signed into law December 21, 2022. This law prohibits the export of objects obtained in violation of the Native American Graves Protection and Repatriation Act (NAG-PRA), which potentially include rock art removed from its original setting. The atmosphere towards preserving public lands resources remains positive; however, with Congress and President Biden at odds, changes have been limited to administrative actions, not legislation.

The committee chair submitted a **comment letter** on behalf of ARARA concerning a proposal to pave and reroute the road through Three Mile Canyon and Wells Canyon in eastern Utah to accommodate oil tanker traffic. The project is in the "scoping" phase now, so the comments requested that foreseeable threats to the rock art sites be fully addressed in planning documents. Another comment letter was written in support of restricting climbing and aerial activities in Hell Roaring and Mineral canyons in Utah.

Damage Reports:

8/26/22 A U.S. Forest Service employee is under investigation for allegedly vandalizing a rock art site in Montana. The temporary survey technician out of Missoula, Montana, is reported to have scratched her first name, last initial,

and the date into a rock art panel on a limestone cliff face in the Helena-Lewis & Clark National Forest, known as the "Canyon Mouth Site."

10/19/22 Santa Fe County sheriff's deputies arrested a man who admitted spray painting petroglyphs at The La Cieneguilla site in New Mexico. The site is on BLM land. The sheriff's department received a tip that someone was vandalizing the site and was able to confront the suspect 15 minutes later. The suspect admitted to vandalizing the petroglyphs and claimed he was drawing a Zia sun symbol over a swastika that was already painted on the rocks. The incident followed extensive vandalism to the site discovered in January 2022. That included spray painting and scratching directly over petroglyphs. The graffiti included the aforementioned swastika, a pentagram, images of male genitalia, and racial slurs. Despite the FBI and the New Mexico Wilderness Alliance each offering a \$5000 reward for information, no one has been arrested in connection with the January incident.

11/4/22 Two residents of Elko, Nevada, were sentenced to prison under the Archeological Resources Protection Act for spray painting petroglyph panels at White River Narrows, a site sacred to Paiute and Shoshone communities. Jonathan Pavon pleaded guilty in June 2022 to misdemeanor conspiracy and a felony violation of the Archeological Resources Protection Act. He was sentenced today to six months for the misdemeanor conviction, and a year and a day of imprisonment for the felony conviction. The sentences will be served concurrently. Daniel Plata pleaded guilty in July 2022 to a misdemeanor damage of archeological resources. He was sentenced today to four months of imprisonment followed by eight months of home confinement. ☼

Respectfully submitted,
Linea Sundstrom, Chair
Conservation Committee

URARA Summer Picnic

August 17–20

BEAVER, UTAH

For more information and to register, go to:

<https://urara.wildapricot.org/Field-Trips>



Highlights from the 2023 Conference



Dale Becker (L) presents the Conservation Award to Steve and Diana Acerson. Photo by Amy Gilreath.



Andy Schouten (L) presents the Frank & A. J. Bock Award for Extraordinary Achievement to Mary and Jim Gorden. Photo by Amy Gilreath.



Jeff LaFave presents the Klaus Wellman Memorial Award for Distinguished Service in the Field of Rock Art Research to Margaret (Marglyph) Berrier. Photo by Amy Gilreath.



Right: Peter Tran (L) and Fra. Steve Rehrauer (R) accepting the Keepers of the Gate Award on behalf of the Redemptorist Society of Arizona. Al Dart (C) presented the award. Photo by Bruce Liddil.



The Vendors' Room was a popular hangout during breaks from the presentations. Photo by Bruce Liddil.



Above: Kim Jurick, Jim Royle, and Sherry Mitchell (L-R) working the registration desk. Photo by Sherry Mitchell.

Highlights from the 2023 Conference



Upper left: Al Dart, as Director for the Old Pueblo Archaeology Center, receives the Education Award from Sharon Urban (Shurban). Photo by Amy Gilreath.



Upper right: Linda Olson opening the presentation portion of our conference Saturday morning. Photo by Bruce Liddil.

Left: Aaron Wright (R) introducing Dr. Julio Amador Bech (L), the banquet speaker. Photo by Amy Gilreath.



Conference attendees warming up for the Awards Banquet and Dr. Julio Amador Bech's presentation. Photo courtesy Bruce Liddil.

Field Trip Memories!!



*Ned and Edna Clem, Edna holding the parking lot field trip sign.
Photo by Sherry Mitchell.*



*Amy and Leigh Marymor, Saguaro National Park East field trip.
Photo by Sherry Mitchell.*



Above: Aaron Wright (R) with part of a Friday field trip group at Painted Rock Petroglyph Site. Let's start a GoFundMe for a new hat for Aaron. Photo by Amy Gilreath.



Right: Amy Gilreath (L) and Amanda Castañeda (R) represent the Board on a Friday field trip. Photo by Paul Keyser.



Above: Fields of globemallow and Amanda Castañeda at Gillespie Narrows Preserve on a Friday field trip. Photo by Amy Gilreath.



Above: A Monday field trip group, led by Al Dart, at Los Morteos, Pima County Conservation Area. Photo by Amy Gilreath.



Upper left: King Canyon petroglyphs at Saguaro National Park. Photo by Linda Hylkema.



Lower left: Folks at Saguaro National Park on one of the Friday field trips. Photo by Linda Hylkema.

Above right: Precarious footing at Gillespie Narrows Preserve. Photo by Amanda Castañeda.

Membership Report for the 2023 Conference

by Troy Scotter

As of March 5, 2023 we have 482 members in the following categories:

Membership Level	Active	Pending/ New	Total
Courtesy	5	-	5
Donor	10	-	10
Family	245	2	247
Individual	209	-	209
Institutional	5	-	5
Student	6	-	6
Total	480	2	482

This represents a modest increase from the report at the last conference, where we had 477 members as of June 1, 2022.

It's difficult to identify how many new members have joined in 2023 due to the conference, especially since there is such an overlap between the membership renewal period and the conference registration period this year. However, there are 65 new members as of March 5, 2023. Given that pricing for the conference was very advantageous for members, we expect that many of these new members are interested in the conference. Now it is our responsibility to welcome them and ensure that they enjoy their membership at ARARA.

We keep simple contact information from everyone who participates in our monthly Zoom lectures on rock art topics so that we can inform contacts outside of ARARA of further lectures. We don't "market" to them but inform them of ARARA events such as the lectures and the conference. Currently, our database has approximately 1500 outside contacts.

Our membership process remains the same as the last several years. Membership renewal notices are sent out on January 1 by email. This is an odd way of doing things where reminders are sent out after you technically lose your membership, but it is driven by the way that we allocate our AIRA volumes. To send out reminders before would create problems for our AIRA distributors. Membership payment can be made by credit card or by check. The Board is exploring a recurring credit card payment option where you could opt in to a system of automatic billing of your credit card on January 1. But currently the system we would have to use is a bit "clunky" and I am suggesting we not pursue it.

At this point in time we don't have any plans to change membership pricing.

Our online membership module allows us to streamline the membership renewal process. Before ARARA adopted the new website, two or three members would work almost full time in December and January with membership. Because notifications now go out by email, are automated, and allow payment by credit card, the time requirement of our volunteers is significantly reduced. I honestly spend almost no time on membership anymore with the exception of checking with the few non-members who join during the year. ☼

Awards Committee Report

by Anne Stoll, Chair

HAVING previously been chaired by super-competent Margaret Berrier who did most of the work, this committee was new at the job this year and got a bit of a late start. Notifications asking for awards nominations did not effectively reach the membership, a problem hopefully solved in the coming year. Candidates were nominated and selected for the Wellmann, Bock, Keeper of the Gate, Education, and CAP awards. The only award with multiple qualifying nominations was the Bock award. Nominations were received for the Oliver and Castleton awards, but no winner for either was approved.

The present requirements for nomination for the Castleton award as published on the ARARA website have prompted some email discussion over the past six months. In the opinion of this year's chair, the requirements need to be revisited and perhaps revised. As the amount of the prize money is significant (U.S. \$1,000), this award has generated some international interest. If it is ARARA's intent that this award be given only to U.S. citizens or only to persons working in the U.S., this could be more clearly stated in the entry rules. The requirements for this award are apparently confusing to some potential applicants. It is hoped that a re-evaluation of the Castleton award can be added to the Board's 2023 agenda.

Expense receipts for 2022-2023 awards have been submitted to the Treasurer. Committee members include Dale Becker, Laurie White, and Linda Olson. ☼

In case you weren't able to join us, the
Program and Abstracts
from the 2023 Tucson Conference
are attached to this issue of *La Pintura*

Nominating Committee Report

Aaron Wright, Chair

Prior to the COVID19 endemic, ARARA selected its five-person Nominating Committee (hereafter “Committee”) by the process outlined in the Bylaws, i.e., the election of three people from the floor by members at the Annual Business Meeting at ARARA’s annual conference, with the additional two appointed by the Board.

Since the 2022 conference was held virtually, the election process followed that of the previous year’s virtual conference. ARARA members were asked to nominate up to three persons to serve on the Committee. The Committee then verified whether those who were mentioned at least twice (equivalent to a nomination and a second) were willing to serve. The resulting list was then presented to the membership for election during the 2022 virtual Business Meeting. Members in-attendance were allowed to vote for up to three persons. The three elected were Polly Schaafsma, Aaron Wright, and Amy Marymor. The board subsequently appointed Chester Liowsz and Diane Hamann to round out the Committee.

The Committee’s first charge was to elect its Chair from among its members. Polly Schaafsma nominated Aaron Wright to serve as Chair, which was seconded by Diane Hamann. With no alternate nomination, and no opposition from the other members, Aaron Wright agreed to serve as Chair of the Nominating Committee.

The Committee’s second charge was to nominate candidates for four Directors to the ARARA Board to serve a two-year term, from July 1, 2023 to June 30, 2025. In early December 2022, the Chair drafted a “call for nominations” and circulated it among the ARARA membership via email. This resulted in two suggestions from the membership, both of whom declined to serve. The Chair also inquired with the current Directors to gauge their interest in serving again; one agreed, two declined, and one was term limited.

With just one of the four current Directors willing and able to serve a second term, the Committee met virtually on December 18, 2022, to review progress and discuss options. The Board provided a list of current ARARA members, and the Committee spent the last week of 2022 and first week of 2023 reviewing it for prospective candidates. The Committee agreed to (a) consider only members who had not yet served on the ARARA Board, (b) secure at least five nominations for the four Directors so as to provide membership with options, and (c) set February 1 as the deadline for nominations, per the Bylaws.

In the end, the Committee reached out to 10 ARARA members, and four agreed to run and serve a two-year term

as Director if successfully elected. This resulted in the Committee’s nomination of the following five candidates: Kirk Astroth, Amanda Castaneda (second term), Tim Dodson, Teresa Rodrigues, and Anne Stoll.

On February 20, 2023, the Board voted to expand the number of Directors from four to five for the term beginning on July 1, 2023. The ARARA Webmaster prepared a page on the ARARA website explaining the election process and including short biographies and photographs of the five candidates. Voting initiated on February 22, when members were emailed guidance on the election and a personal voter code to use on the election website. The voting period ended on March 5, several days prior to the Business Meeting. Of the 428 potential voters, 138 (32 percent) participated in the election. Four of the voters, however, failed to select any of the candidates, and 122 voters selected the full slate.

Of the 134 voters who selected at least one candidate, the resulting vote counts are as follows: Kirk Astroth 128 (96 percent); Amanda Castaneda 132 (99 percent); Tim Dodson 133 (99 percent), Teresa Rodrigues 131 (98 percent); and Anne Stoll 128 (96 percent). There were no write-in candidates. As a result, the Board accepted and approved the full slate of candidates to serve as the next five Directors.

The 2022-23 Nominating Committee thanks the Board and membership for the opportunity to serve ARARA, and we thank and congratulate the elected slate. ☼

Upcoming Lecture

August 21, 2023

7:00 p.m. Central Daylight Time. Free.

A Sensory Approach to Exotica, Ritual Practice, and Cosmology at Chaco Canyon

by Robert Weiner, Ph.D.

IN this talk, Robert Weiner suggests that a compelling Irreligious movement focused on water, astronomy, powerful landforms, and exotic Mesoamerican goods is the key to understanding Chaco’s monumental fervor and regional influence across the U.S. Southwest.

Sponsored by *The Aztlander*, Chicago

Go to <https://us02web.zoom.us/j/85230136439> on the event date to join the session. ☼

Website Committee Report

by Troy Scotter

There hasn't been much change to the website this year. If you have new content you would like to see, please let us know. The only big change we are contemplating is an effort to get a better URL or name for the website that will be easier to use and remember. Also, for a long time there hasn't been any competition to the type of service that we get from our current provider. But, there is a recent competitor with a very different pricing model that we will assess this summer.

I thought I might add some historical context to why we transitioned from the old website to the new one. When the Board met after the Las Cruces conference (2016), where we had over 300 registrants, we reviewed the field trip process which essentially "broke" under the weight of so many registrations. It was only saved by the last minutes heroic efforts of a bunch of members. We also knew that there was a concern among members that there was favoritism associated with the field trip assignments. There was a suspicion that ARARA leaders and people with "friends" were able to manipulate the system to get the "best" trips.

Our current Wild Apricot site has an excellent Events Module. While it doesn't do everything we want, it does bypass the cumbersome and ethically suspect manual process with an automated and transparent process.

The other advantage of Wild Apricot is that its membership module allows us to streamline the membership renewal process. Before this process, two or three members would work almost full time in December and January on membership. Because notifications now go out by email, are automated, and allow payment by credit card, the time required by our volunteers is significantly reduced. About 90% of our membership and event payments are now received via credit card and require no manual intervention. But we do lose money on credit card fees.

I would love to have someone who would be willing to help with the website. You don't need to be a programmer, the software we use does all of that technical stuff. But one of these days I am going to walk out of my front door and a coconut is going to fall on my head and kill me. And it would be nice to have someone who could say "I know how to build a field trip." ☼

Financial Report

by Troy Scotter

I am attaching the 2022 ARARA financial statement for your review.

- There is one error in the financial statements that were available at the registration table. The Board discovered that upon review, an amount of \$801 should be moved from the Student Research Awards to the Awards category. The bottom line and total expenses remain the same.

- Conference revenue was up nicely last year primarily due to conference and workshop registration along with a nice boost from T-Shirt sales.

- In 2021 the video production company we used to broadcast the conference volunteered their personal time. We used the same company in 2022 paid most of their staff a market rate. The cost of the broadcast was still significantly lower than a second bid we had received the year before.

- Credit card fees are soaring over the past as more people switch from paying by check.

- We got a little refund on our insurance last year which caused the slight drop in fees.

- I did the taxes last year so there were no professional fees.

- The big hole in the financials this year are the publication expenses. I got that bill this February. So next year we are going to have roughly \$20,000 in publication expenses.

- Student research awards continue to do well. There will be a big bump next year for student travel reimbursements on top of the awards.

- We have a small profit this year, but the reality is that if publication expenses were included we would probably have a loss in the \$6000-\$7000 range.

- In Las Cruces there was a discussion about ARARA drawing down its cash reserve by funding rock art research and documentation projects. We spent quite a bit of time researching that proposal and talking with non-profit organizations who had done this in the past or were doing it at the time. In the end we felt that the time and effort required to successfully pursue that course was beyond the capability of ARARA. But the student research awards might be considered an alternative way to spend down some of our reserve to benefit rock art research and support a new generation of researchers. ☼

Monthly Online Lecture Series

ARARA MEMBERS would love to hear about your new rock art discovery, recording project, conservation effort, or new idea for interpretation. Please contact us at: <https://arara.wildapricot.org/Contact> to submit your idea. You can view previous monthly lectures on our YouTube channel:

<https://www.youtube.com/c/ARARARockart/videos>

American Rock Art Research Association (ARARA)

Income Statement (Cash Basis)

Calendar Years 2022, 2021, and 2020

	Jan - Dec 2022	Jan - Dec 2021	Jan - Dec 2020
Income			
Membership dues	17,325	17,605	16,068
Conference Revenue			
Registration	6,060	5,750	-
Workshop registration	2,940	-	-
T-Shirts	2,553	1,242	-
Total Conference Revenue	11,553	6,992	-
Donations	1,130	2,500	330
Interest earned	12	18	31
Total Income	30,020	27,115	16,429
Expense			
Conference Expense			
T-Shirts	1,772	1,133	-
Workshops	570	-	-
Conference video hosting	8,091	4,290	-
Total Conference Expense	10,433	5,423	-
Archives	2,611	2,157	2,047
Awards	801	1,242	3,166
Administrative Expenses			
Bank & credit card fees	1,024	637	236
Insurance	1,450	1,596	1,431
Software	2,283	1,949	2,449
Zoom	768	768	-
January Board Meeting	-	-	7,969
Postage	-	8	-
Professional fees	-	1,594	850
Other	387	-	661
Taxes	-	20	60
Total Administrative Expenses	5,912	6,572	13,656
Publications			
American Indian Rock Art	-	8,685	11,950
La Pintura	-	663	-
Total Publications	-	9,348	11,950
Committees			
Conservation	-	2,425	-
Education (Student Awards)	5074	3,282	-
Public Relations (SAA)	1820	1,190	535
Total Committees	6,894	6,897	535
Total Expenses	26,651	31,639	31,354
Net Income	3,369	(4,523)	(14,925)

American Rock Art Research Association (ARARA)

Assets

	12/31/2022	12/31/2021	12/31/2020
Checking Account	27194.71	23,839.21	28,377.50
CDs	83472.24	83,459.11	83,444.03
Total Assets	110,666.95	107,298.32	111,821.53

Archives Committee Report

by Diane Hamann, Chair

IN October, 2022, the ARARA Board of Directors issued an extensive charge to the Archives Committee regarding the future of the ARARA Archives, which consists of Organizational Records/History, Library Materials, and Research Materials. We met by Zoom on October 2 and November 16, 2022, and on January 11 and February 8, 2023. Meetings will continue monthly via Zoom until the Committee has completed its charge. The Committee members are Michael Bies, Ann Brierty, Marilyn Fredericks, Martin Gutoski, Diane Hamann, Lanny Rubin, Walter van Roggen, Anne Whitfield, and Aaron Wright. Diane Hamann serves as Chair and Michael Bies serves as Secretary.

The Committee's deliberations have been generally structured around the charges from the Board.

This is a preliminary report of our discussions to date. A final report will be issued to the Board when the Committee has completed its deliberations. Current recommendations and comments may change depending upon future deliberations.

Charge #1: Select a Chair and a Secretary from your committee membership.

Action: Completed October 2, 2022. Diane Hamann serves as Chair; Michael Bies serves as Secretary.

Charge #2: Current state of the Archives at Iron Mountain

Background: The Archives Collection (Organizational Records, Library, and Research Materials) came into existence in the late 1990s and was initially housed at Deer Valley Rock Art Center (DVRAC), Arizona State University. Due to deteriorating storage conditions at DVRAC and some internal ASU Department of Anthropology reorganization, the Collection was moved to the Department of Anthropology's Archaeological Research Institute's (ARI) storage facilities in 2013-2014. This provided a climate and access controlled environment for the Collection and enabled the beginning of some rudimentary inventory efforts. Early in the Fall of 2019, ARARA was informed that the ARI storage facility no longer would be able to provide space to house the Collection. After consultation with the Board, the Archives Committee arranged for the collection to be stored at Iron Mountain, a nationwide, off-site storage company that provides state-of-the-art storage and security for records of all kinds.

The move took place in the Fall 2019 and the Collection is currently stored at Iron Mountain. Access is possible but extremely limited. No new material has been added to the Collection since 2018 and acceptance of new material is

currently suspended. However, the Committee is aware that there are members or families of deceased members who currently wish to donate materials to the Collection.

Charge #2A: What is the current inventory?

Answer: Currently, the collection consists of 166 boxes stored at Iron Mountain. Of these, four are large pieces of art; 32 are boxes of organizational records (including copies of AIRA volumes); 64 are boxes of library materials (books and other publications), and 62 are boxes of research materials. There are no inventories of what exactly is in each box. The Archives Committee and other volunteers had only one day to pack the Collection for the move to Iron Mountain; there was not enough time or person-power available to inventory what exactly went into each box. Box labels do indicate what the contents are generally, e.g., books, journals/articles, organization records, research materials.

Charge #2B: How much shelf space would we occupy at a facility with our current collections?

Answer: In boxes, the Collection takes up roughly 225 linear feet of shelf space. If unboxed, the shelf space needed would be larger, but that cannot be estimated at this point.

Charge #2C: Is it possible to estimate future space needs?

Answer: This question will be discussed in future meetings.

Charge #3: Develop criteria for what ARARA needs from a location for the Archives. Develop a policy on the types of materials to be included in the ARARA Archives.

Charge #3A: Organizational Records

Answer: Retention of ARARA's organizational records must be guided by California State Law since ARARA is incorporated in California. Some resources/information for non-profits can be found online at the California Attorney General's website. Additionally, the National Council of Non-Profits (NCNP) has document retention guidelines and, in recent years, the Board has used the Guidelines for Document Retention of the American Institute of Certified Public Accountants (AICPA) for determining financial document retention. Preliminarily, the Committee recommends the retention of the following documents/information: Articles of Incorporation, all versions of adopted Bylaws, correspondence/determination letter with IRS regarding non-profit status, any tax-exempt certificates issued by the state and any related correspondence, minutes of Board meetings, minutes of annual Business meetings, Committee minutes, membership information by year, tax returns, financial statements and other documents per the

AICPA guidelines, any other documents/information per the NCNP guidelines, any other documents pertinent to the history of ARARA, copies of all AIRA volumes, copies of all *La Pintura* newsletters. The Committee also recommends that conference presentations be retained, if possible, given copyright considerations. An inventory of the Organizational Records needs to be developed, as does a record of future additions/deletions to the collection. Links to the California Attorney General's website and to the NCNP and AICPA guidelines will be included in our final report to the Board.

Charges #3B & 3C: Library and Research Materials

Answer: The Committee is currently discussing these charges at length. First and foremost, however, there is a consensus that ARARA should develop a research library and materials archive using the current collection as a basis. From this position flow the questions and attendant issues the Committee is currently considering: what belongs, and what does not, in a research library and materials archive; how and when an inventory of the current collection could best be done; principles and policies for donation acceptance, accession and deaccession of materials; how materials should be stored and accessed, opportunities for digitization and use of the internet; copyright and "ownership" issues for donated images, reports, etc.; how to define and identify sensitive material, how to incorporate Tribal input into the definition and identification processes, how to restrict access to these types of materials; where the library and research materials would best be housed, what types of institutions would be appropriate, the possibility that the library and research materials could be housed in different institutions; what funding streams (including grants) might be available; expectations of, and criteria for, institutions to house the library and research materials archive.

The Committee will continue its discussions and hopes and expects to be able to address the issues raised in the previous paragraph. We know that grant resources exist for funding some aspects of the development of the library and research material archive and we hope to be able to provide the Board with some estimates of future costs at a later

point. As we remind ourselves in our meetings, you cannot have a research library without a librarian and you cannot have a research materials archive without an archivist. Once developed, the library and research archive would need to be maintained and grown—an expensive proposition. Deciding that ARARA should develop a research library and research materials archive is not a one-time event: even housed with an institution, ARARA will have an ongoing commitment in terms of time and money to the maintenance and development of the research library and research materials archive. ☉

BOARD MEETING, continued from page 3

f. President full admin privilege on Wildapricot

President has full access to Wild Apricot, our website software and membership database. We need to find additional volunteers for the website.

g. Board members in Vendor Room

h. SAA 2023 Conference Booth Volunteer

i. Conference Committee Future Structure

Amanda motions for the Conference Committee to develop a virtual component to the 2023 conference provided that the facility has the capability.

Amy seconds the motion.

Discussion: This may include virtual attendees, virtual presenters, and/or virtual workshops.

All in favor.

May 17–20 is possible weekend for Farmington, NM conference for our 50th anniversary.

j. Other

Virtual hybrid conferences

Digital AIRA

Cost/benefit analysis of \$10K for AIRA

The meeting adjourned at 2:57 p.m.

*Minutes were approved via email by April 17, 2023. ☉



Rock Art News

Archaeologists Identify Moluccan Boats That May Have Visited Australia from Indonesia in Rock Art Drawings

by Flinders University

<https://phys.org/news/2023-05-archaeologists-moluccan-boats-australia-indonesia.html>

2023 Student Award Winners & Education Committee Updates

by Tim Dodson

FIRST, I hope everyone enjoyed the Conference in Tucson, Arizona. After three years of not gathering in person, it was wonderful to see old friends and make new ones. I would like to thank everyone who assisted in organizing such an enjoyable and successful event.

This year, instead of holding a traditional educational workshop or seminar, the Education Committee (EC) assisted in organizing and sponsoring the Tohono O'odham Community College Art Show. Based on the number of comments I received and heard at the conference, it was a huge success. The EC would like to thank Dr. Aaron Wright and Mr. Gordon Hanson for their assistance in organizing the event. More importantly, the EC would like to thank Ms. Linda Chapple (Faculty & Instructor) for facilitating the event and the students at Tohono O'odham Community College for exhibiting their art during the conference. The artwork on display consisted of approximately 20 works, primarily print-making and digital photography; all of which speaks to the students' ongoing relationship and association with the Sonoran Desert landscape and their heritage to which it is inextricably connected—Himdag. As a reminder, some of the works displayed are available for purchase directly from the artists: For purchase information please email Ms. Linda Chapple at Lchappel@tocc.edu.

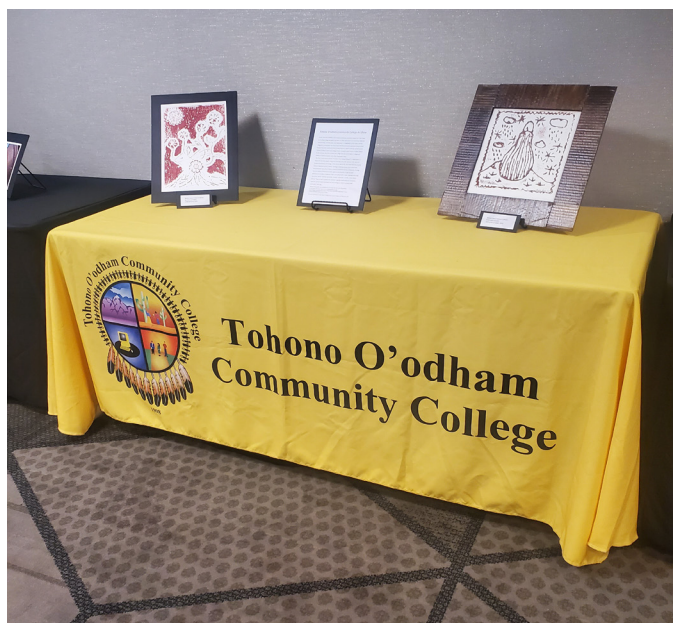
2023 marked the first year that ARARA has offered Un-



Overview of the 2023 ARARA Tohono O'odham Community College Art Show. All photos provided by Tim Dodson.

dergraduate, Masters, and Ph.D. Student Research Awards. This year, we had a total of five applications, one undergraduate student, one Masters student, and three Ph.Ds. Volunteers from the Education Committee judged each proposal and rated them using a new 2023 weighted rubric. A special thanks goes out to the volunteer reviewers for their... dedication and valuable input.

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Tohono O'odham Community College Art Show Table.



Aleko Zavrashvili, the 2023 Undergraduate Student Research Award Winner, recording rock art in western Georgia.



Mghvimevi, in western Georgia, where Aleko will be looking for the presence of rock art.

After the scores were compiled and opinions were expressed, the Education Committee determined that Aleko Zavrashvili should be awarded \$500.00 for the undergraduate award, Daniela Ramos be awarded the \$1,050.00 requested for the Masters award, and Lucia Gutierrez be awarded \$2,500.00 for the Ph.D. award.

Mr. Zavrashvili will be using the funds to produce a peer-reviewed journal article. His research will involve revisiting Upper Paleolithic caves sites in western Georgia looking for the presence of rock art. Specifically, he will be focusing on the site of Mghvimevi. He will be working with the Georgian National Museum, and has also received funding from Tbilisi State University. He hopes to place sites in the broader context of rock art sites from the Caucasus.

Ms. Ramos will be using the funds to support her Masters research project that examines the technological processes involved in the production of the Prehispanic petroglyphs located in central Colombia. Through research, lithic analysis, and experimentation, she hopes to establish an operational chain showing the lithic tool production and their use in petroglyph manufacture. This will focus on the rock art sites near the towns of El Colegio and Tamesis.

Ms. Gutierrez will be using the funds to complete her Ph.D. research project/thesis. Her project has been ongoing for the past two years and is focusing on the characteriza-



Daniela Ramos, the 2023 Masters Student Research Award Winner.



Petroglyphs in central Colombia.



Lucia Gutierrez the 2023 Ph.D. Student Research Award Winner.

tion of the pigments used in the production of pictographs in southwestern Chubut, Argentina. She intends on documenting rock art sites, refining dates of creation through Raman Spectroscopy, obtaining chemical compositions/manufacture of rock art pigments, and determining an anthropologic explanation of how and why the pictographs were made through consultation with the Tehuelche-Mapuche community, El Chalia, on rock art meaning and symbolism.

Having the first face-to-face conference in three years, I would like to again thank Mr. Robert McBride, our 2021 Undergraduate Student Award winner, and Ms. Lucia Gutierrez, the 2023 Ph.D. Student Award winner for attending and presenting at the conference.

During the banquet, past Student Award winners who

were unable to attend in person provided video updates on the research that ARARA helped fund or support. Thank you to Mr. Jordan Schaefer (2020), Ms. Lucy Gill (2021), Ms. Mairead Dorey (2022), Mr. Aleko Zavrashvili (2023), and Ms. Milena Ramirez (2023). We look forward to them completing their research and presenting at future ARARA conferences.

Finally, the EC began looking for a new Committee Chair beginning in June of 2023. Please let me know if you are interested or would like to nominate someone for this position. Also, we are always looking for motivated volunteers to join the EC and bring in new ideas. ☀

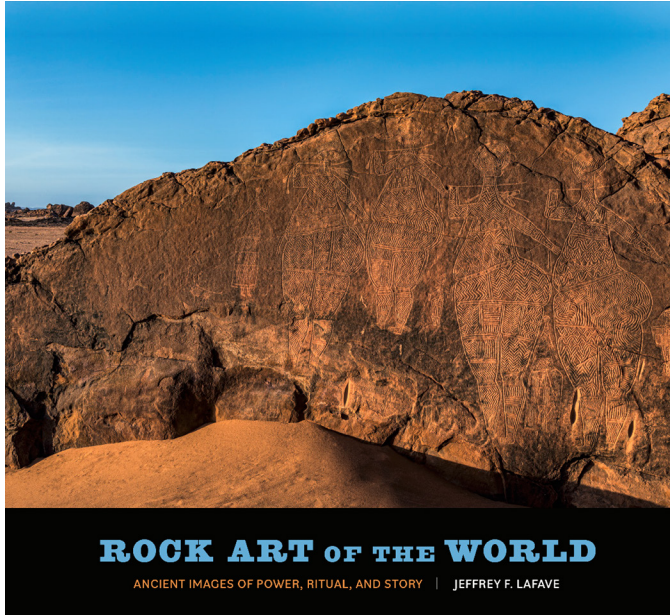


Lucia examining pictographs in southwestern Chubut, Argentina.



Book Review

Rock Art of the World



Reviewed by Chris Gralapp

Rock Art of the World

by Jeffrey LaFave

2022 Rock Art Publishing, San Diego, CA, USA

rockartpublishing@icloud.com

ISBN 979-8-218-02266-4

\$98 + tax and shipping

Rock art books abound, each with a special emphasis. Jeff LaFave has created an impressive and elegant book, taking on a tall order: an examination of the breadth of rock art on a global scale, reflecting a lifetime of research, travel, and an artist's eye.

LaFave speaks eloquently and directly about his original nascent awareness of rock art, bypassing it at first, then opening to the richness of the form—an experience that resonates with most of us who are stirred by the rock art muse, the proverbial ah-ha moment of discovery. In other hands, a book of this kind could potentially slide into the realm of eye candy, but LaFave moves far beyond the surface in his descriptive and informative mission.

He deftly uses a thoughtful, articulate approach, and imparts ideas using clear and vivid language, which allows the reader to share in his enthusiasm for this immense topic, and learn the practical and deeper theoretical elements at the same time. This book strikes a balance for both the scholar and the avocationalist.

Divided into two main sections, the book's first part sup-



Wanjina face, Molcott site, Kimberly, Australia

plies an overview of important concepts in rock art, which divide logically into chapters that answer common questions. The what, who, when, how, and why of rock art is discussed, and LaFave takes a deeper look into the importance of context in rock art study—the context of the landscape and how the images are placed; and the context of culture, and how the images are lenses into the creative minds of earlier cultures in ways that material artifacts often are not. He emphasizes that these images are sophisticated visual descriptions of cultural lifeways and belief systems to which we are not necessarily privy, but can appreciate nonetheless. The functions of rock art are explored, and help us to understand the creative impetus of the makers. Also included are popular theories about rock art making, discussions about dating, and several very helpful tables and maps.

The second part is a photographic survey of world rock art by geographic region, revealing the scale and wonder of rock art expression on the six continents where rock art is found. (If rock art exists on Antarctica, Jeff LaFave will find it!) The 300+ photographs are superb, sensitively and expertly captured, many including the landscape context and vistas that surround the figures. LaFave's sense of composition and his exceptional ability to get the best lighting con-

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Portion of the “Cave of the Beasts”—humans apparently floating in air, Gilf Kebir, Egypt

Below, right: Portion of the huge panel at Archei, the “Grand Riparo,” Ennedi Plateau, Chad



Above: Alta, Norway

ditions vaults his work squarely into the realm of fine art. These pictures are sublimely beautiful, conveying the magnificence and mystery of rock art that so attracts us.

The author chose to self-publish this work, thereby maintaining aesthetic control over the book design, which is sumptuous and monumental at 10.5” x 12”, in a wide format. Over 100 spot illustrations by David Lee grace the lavish white space in the margins, and the text is supported by hundreds of scholarly citations. The deep dive that this book provides is inspirational for anyone’s journey of discovery into the vast world of rock art. ☼



In Memoriam

Jack W. Brink 1949–2023

by Jim Keyser

ARARA lost an esteemed colleague when Jack Brink passed away in Edmonton, Alberta, on January 30, 2023 from complications due to a respiratory virus. Jack was a member of ARARA but he contributed to our organization primarily from a distance. He served as a manuscript reviewer and was our keynote speaker at the 2022 conference via Zoom. He had been scheduled to present a history of research at Writing-on-Stone for our February 2023 monthly Zoom lecture series but that was pre-empted by his last illness.

Jack was way more than a rock art scholar, although his contributions in that field made him the preeminent Alberta rock art expert. He was, first and foremost, my friend for more than 40 years, and he was the most likeable archaeologist I have known. Greatly respected by all of his colleagues, Jack was also widely known and respected by the First Nations people of Alberta with whom he worked tirelessly to preserve their Native cultures.

During his career with the Archaeological Survey of Alberta and as curator at the Royal Alberta Museum, Jack published about twenty rock art articles, ranging from his initial excavations at Writing-on-Stone where he searched for petroglyph manufacturing tools below several panels, to basic descriptions of other key Alberta sites (Williams Coulee, Zephyr Creek, Rattlesnake Cave, and the Glenwood and Airdrie erratics), to issues of vandalism and conservation at Writing-on-Stone and Okotoks Rock. Jack was particularly proud of his efforts to establish conservation studies at Writing-on-Stone. But Jack also published extensively on several other archaeological topics including the communal procurement of bison, antelope, and caribou, and the general archaeology of Alberta. In all, he published nearly 100 articles, monographs, and books over his 40-year career. His premier publication is the book “Imagining Head-Smashed-In” which discusses Alberta’s biggest buffalo jump—a UNESCO World Heritage Site. “Imagining” is the best book on archaeology I have ever read, and obviously others thought so too, since it won numerous awards including “best book” awards from the Archaeological Institute of America, the Canadian Archaeological Association, and the Society for American Archaeology.

In addition to these awards, Jack was also awarded an Honorary Doctorate of Laws from Athabasca University in 2012, and in 2020 he received his country’s highest civilian award,



Jack Brink (at left) at Writing-on-Stone Interpretive Center, with David Kaiser, Jim Keyser, and George Poetschat

the Order of Canada. Both meant a lot to Jack and both were well deserved. Both awards recognize Jack’s enormous contributions to the pre-contact archaeology of Alberta.

In addition to writing, Jack was also a masterful lecturer on various archaeological topics. As a lecturer for the Archaeological Institute of America he traveled around the world leading chartered tours of such sites as Easter Island and Xian, China, with its army of clay soldiers. I spoke several times with Jack about that work and his enthusiasm for those tours came through clearly. He once said to me, “Keyser, can you believe they PAY ME to fly around the world in this chartered jet to talk to a group of rich folks interested in archaeology?”

Evidencing the respect of his peers and his natural talent as a “politician,” Jack was also elected to serve as Vice-President and President of the Plains Anthropological Society and the Canadian Archaeological Association, and both of those organizations recognized Jack with their lifetime Distinguished Service awards. He was also the driving force in having the province of Alberta nominate both Head-Smashed-In and Writing-on-Stone as properties on the World Heritage List. For me, Jack’s political acumen was personal, since it was he who arranged a 1993 meeting between Michael Klassen and me at Writing-on-Stone specifically for the purpose of encouraging us to collaborate on a book about northern Plains rock art.

But a mere recitation of Jack’s voluminous accomplishments in the fields of archaeology and rock art study cannot do justice to who he really was. Those who really knew Jack, knew well his wry wit—sometimes acerbic but always unpretentious. Jack was a treasure trove of data on Alberta rock art, always willing to share information he had and to help others. And right up until the end he maintained his enthusiasm about doing rock art research. Here’s a quote

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from a series of e-mails I exchanged with Jack asking for his opinion on a site I was studying in Montana, just south of Writing-on-Stone, and enquiring about his work on the newly discovered Vertical Series tradition art at Writing-on-Stone's site DgOv-2:

What strikes me immediately, Jim, is that there is so much we *don't* know about Plains rock art. There was stuff going on in people's heads, and how they laid that stuff down in paint on rock surfaces, that we are totally ignorant of. And though it may be frustrating to our need for order and explanation, there is a certain beauty to knowing that the world was, and is, way more complicated than we ever thought, that people have been as endlessly fascinating in the past as we hope we will seem to future generations. Thanks for reassuring my faith in the endless inventiveness of the human mind.

As for the new stuff at DgOv-2, so far just at Panel 21 we have art representing the Plains Ceremonial, Plains Biographic, Foothills Abstract, and Vertical Series traditions plus a number of images—representational figures—that don't fit any of those. Man, this sure is fun!

I had the pleasure of knowing Jack for more than 40 years and working with him on several field projects at Writing-on-Stone. I am proud to have called him my friend. He will be missed by many, but his contributions to rock art and archaeological research will last as long as anyone still studies the subjects. ☼

Jack W. Brink

References: Rock Art 1979–2022

Compiled by Leigh Marymor

Retrieved from the Rock Art Studies Bibliographic Database:

Andrews, Thomas D., and Jack W. Brink

2022 Using retroReveal as a Complement to DStretch for Enhancing Red Ochre Pictographs. *Canadian Journal of Archaeology* 46:1–15. Canadian Archaeological Association. Electronic document, https://www.researchgate.net/profile/Thomas-Andrews-8/publication/362952514_Using_retroReveal_as_a_Complement_to_DStretch_for_Enhancing_Red_Ochre_Pictographs/links/630b8b531ddd447021162e98/Using-retroReveal-as-a-Complement-to-DStretch-for-Enhancing-Red-Ochre-Pictographs.pdf, accessed 9/14/2022.

Keywords: Alberta, Canada. North America. Documentation. Digital color enhancement. DStretch. retroReveal. Red ochre pigment.

Abstract. The web-based program retroReveal has been used primarily for providing improved visibility of documents with faint text, including stamps, currency, music, and so forth. It has yet to be used to its full potential by archaeologists interested in rock art. The plugin DStretch, used on the ImageJ platform, has been the

standard for enhancement of faint red ochre rock art images. We introduce retroReveal as a supplement to photographic investigation through comparison of images from four rock art sites in Alberta, Canada. Processing photographs with the two techniques typically yields comparable results, but often with slight differences. In a few cases, retroReveal makes certain features more apparent than is the case with DStretch; in other instances, the opposite is true. Other positive and negative aspects of the two techniques are discussed. Experiments with black pictographs indicate that retroReveal does not perform satisfactorily with these images. Overall, our results indicate that retroReveal should be added to the toolkit for illuminating painted rock art images.

Brink, Jack W.

2014 Managing Chaos: Vandalism and Rock-Art at the Okotoks Erratic, Alberta, Canada. In *Open-Air Rock-Art Conservation and Management: State of the Art and Future Perspectives*, edited by Timothy Darvill and Antonio Pedro Batarda Fernandes, pp. 174–188. Routledge Studies in Archaeology. Routledge, Taylor & Francis Group, New York and London.

Keywords: Okotoks Erratic, Alberta, Canada. North America. Cultural resource management. Conservation and preservation. Open air sites. Vandalism. Graffiti removal.

Brink, Jack W.

2016 DStretch and New Discoveries in Alberta Rock Art. *La Pintura* 42(3):9–13. American Rock Art Research Association, San Jose, California.

Keywords: Alberta, Canada. North America. Documentation. DStretch digital photo enhancement.

Brink, Jack W.

2018 New Vertical Series Rock Art at the Glenwood Erratic, DiPi-42, Alberta. In *The Swing of Things: Contributions to Archaeological Research in Alberta, 2018*, edited by Eric R. Damkjar, pp. 34–52. Archaeological Survey of Alberta Occasional Paper 38. Edmonton.

Keywords: Glenwood Erratic, DiPi-42, Alberta, Canada. North America. Vertical series motif(s).

Brink, Jack W.

2018 A New Look at the Aridrie Erratic Rock Art Site, EhPI-2. *Alberta Archaeological Review* (66/67):6–14. Archaeological Society of Alberta. Electronic document, <https://digital.library.uleth.ca/digital/collection/aar/id/1761/>, accessed 10/11/2021.

Keywords: Aridrie Erratic Rock Art Site, EhPI-2, Canada. North America. Buffalo stone. Ribstone.

Brink, Jack W.

2020 The Rock Art of the Williams Coulee Site, EcPI-16, Southwestern Alberta. In *Archaeological Discoveries and Syntheses in Western Canada, 2020*, edited by Jack W. Brink, pp. 33–50. Archaeological Survey of Alberta Occasional Paper 40. Edmonton.

Keywords: Williams Coulee Site, EcPI-16, Porcupine Hills, Southwestern Alberta, Canada. North America. Pictographs, Shield-

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bearing warrior motif(s). Plains Ceremonial. Plains Biographical.

Abstract: The Williams Coulee site (EcPl-16), in southwestern Alberta, is an important and strikingly visual rock art site. Perched on a high, rocky cliff in the Porcupine Hills, the main portion of the site lies within the protective cover of a small rockshelter. Thus, the red ochre pictographs within the shelter have been spared from most of the ravages of weathering and are among the best preserved in Alberta. At least ten anthropomorphic figures are present, six of which are shield-bearing warriors. A number of the anthropomorphs are engaged in combat, but others are simply stoically posed or stand-alone figures. Several non-shield figures are of unusual form, and one may represent a therianthrope—combining human and animal features. One faint figure has a greatly swollen belly and holds a rattle, possibly depicting a pregnant woman—an unusual motif in Plains rock art. Weapons displayed include lances, a bow and arrow, and a spike mace. Also found at the site are many carefully placed groups of finger lines, solid red circles, a black circle, and one very large open circle. Outside of the Writing-on-Stone region, Williams Coulee offers some of the most complete and most complex narrative scenes that are typical of Plains Biographical tradition art, but also features scenes with static anthropomorphs that bespeak of the Plains Ceremonial tradition. There is no definitive age for the artwork, but converging lines of evidence suggest an approximate date of A.D. 1500.

Brink, Jack W., Ian A. Campbell, and Arthur E. Peterson

2003 Experiments in Rock Art Preservation at Writing-on-Stone Provincial Park, Alberta Canada. *INORA, International Newsletter on Rock Art* (36):17–23. Comité International d'Art Rupestre (CAR-ICOMOS), Foix, France.

Keywords: Writing-on-Stone Provincial Park, Alberta, Canada. North America. Cultural resource management. Conservation and preservation. Reviews the results of five years of research aimed at extending the life of rock art through developments in stone (sandstone) strengthening treatments. Weathering. “Conservare OH.”

Keyser, James D., David A. Kaiser, and Jack W. Brink

2014 Red is the Colour of Blood: Polychrome Rock Art at Rattlesnake Cave, Alberta, Canada. *Canadian Journal of Archaeology* 38(1):27–75. Canadian Archaeological Association.

Keywords: Rattlesnake Cave, (DgOw-20), Rocky Coulee just outside the west boundary of Writing-on-Stone Provincial Park, south-central Alberta, Canada. North America Red pigment. Blood motif(s).

Abstract: Rattlesnake Cave (DgOw-20) is a small rockshelter located within Rocky Coulee just outside the west boundary of Writing-on-Stone Provincial Park in south-central Alberta. Approximately 40 faint pictographs are found inside the shelter, all drawn in black but a few also showing traces of red pigment. Close examination of the pictographs using colour enhancement indicates that the red was used to show blood from wounds to humans and horses as well as bloody tracks marking the travel of these wounded individuals. This is the first report from a Great Plains rock art site of the use of the colour red to show blood on black drawings. Humans, animals and material culture are described, and 9 narrative compositions—primarily involving combat and horse stealing—are proposed to account for the action depicted at DgOw-20. Rock art at DgOw-20 dates to the Post-contact Period and quite certainly is of Blackfoot origin. Rocky Coulee is interpreted as a focal point in the region for the creation of Biographic style rock art, while the nearby site of DgOv-2 is interpreted as the focus of Ceremonial art.

Turney, Michael, Landon Bendiak, and Jack W. Brink

2021 New Discoveries of Vertical Series and Foothills Abstract Rock Art at Writing-on-Stone, DgOv-2, Southern Alberta. *Plains Anthropologist* 66(259):179–216. Plains Anthropological Society. Lincoln. Electronic document, <https://doi.org/10.1080/00320447.2021.1875315>, accessed 4/17/2021.

Keywords: Writing-on-Stone, DgOv-2, southern Alberta, Canada. North America. Vertical Series. Foothills Abstract.

Abstract: “Writing-on-Stone Provincial Park and the surrounding region is home to one of the largest collections of rock art on the Great Plains. The painted and carved rock art images have been classified as overwhelmingly belonging to the established Plains Biographic and Plains Ceremonial traditions. Images associated with two lesser known Plains traditions, Vertical Series and Foothills Abstract, have not been previously reported anywhere within the greater Writing-on-Stone region. This paper reports on the discovery of several unambiguous instances of Vertical Series and Foothills Abstract rock art at a site located in the heart of the Writing-on-Stone rock art complex. These panels are illustrated and described, possible age and affiliation are discussed, and the placement of this discovery within the Vertical Series and Foothills Abstract traditions is addressed. It is argued that more instances of these poorly known rock art traditions exist within the Writing-on-Stone region but have previously defied recognition.”



Mark Your Calendars (in pencil!)
for ARARA's 50th Anniversary Meeting in 2024!

Farmington, New Mexico

Stay tuned for more details, but the dates are currently projected to be May 17–20, 2024. Planning for this special event is underway!

La Pintura Information/Submissions

La Pintura is the quarterly newsletter published by the American Rock Art Research Association. Subscription to this publication is a benefit of membership in ARARA. Beginning with Volume 47-1, *La Pintura* is being produced digitally only. Back issues of *La Pintura* are available electronically on the ARARA website: arara.wildapricot.org.

ARARA members love to read about your new rock art discovery, recording project, or new idea for interpretation. For that to happen, *La Pintura* needs you to submit articles on current research or fieldwork. Doing so will make *La Pintura* a better journal.

Editorial deadlines insure timely publication of each issue. Deadlines for submissions are:

February 15 (March)

May 1 (June)

August 15 (September)

November 15 (December)

La Pintura is edited by Linda Hylkema, araraeditor@rockart.us

The editor extends an open invitation to members to submit articles, news, letters to the editor, book reviews, and other items of interest to ARARA members.

Letters to the Editor: No special format necessary.

News Items: Please provide pertinent information such as the event, time, place, cost (if any), group or person in charge, who to contact, address, and deadline.

Articles: Manuscripts of original research are welcome. They should embrace sound principles of investigation and present data in a clear and concise manner. Consult the ARARA Style Guide at: <https://arara.wildapricot.org/AIRA>

Current Events: Current events and news of items of interest to our members that need public notice prior to the next issue of *La Pintura* should be submitted to ararawebmaster@rockart.us.

American Rock Art Research Association

Mission Statement: ARARA is a diverse community of members with wide-ranging interests who are dedicated to rock art preservation, research, and education in order to communicate to a broad audience the significance of rock art as a non-renewable resource of enduring cultural value and an important expression of our shared cultural heritage.

About ARARA: ARARA is a 501(c)(3) 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.

Code of Ethics: ARARA subscribes to a formal [Code of Ethics](#) and enjoins its members, as a condition of membership, to abide by the standards of conduct stated therein.

ARARA on Facebook: Content for consideration should be submitted to Scott Seibel, scottseibel@cox.net

ARARA's Official Website: arara.wildapricot.org. Considerable information about our organization is provided at our official website.

Additional Contacts and Information: contact Conference Chairs via <https://arara.wildapricot.org/Contact>

Annual Meeting, 2024:

- Conference Chair, Monica Scott-Seibel
- Local Committee, TBD

All Other Correspondence: The official mailing address is: ARARA c/o Troy Scotter, 569 East 320 North, Orem, UT 84097-4817.

ARARA Membership

For all Membership matters contact: Membership annual fees are:

ARARA Membership	Donor	\$120.00
Troy Scotter	Family	\$50.00
569 East 320 North	Individual	\$45.00
Orem, UT 84097-4817	Society/Institution	\$60.00
	Student*	\$35.00

*Requires photocopy of current student ID.

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 membership year, reduced conference fees, and current news in the field of rock art.

Officers & Board

Officers, Board Members, and Committee Chairs contact: <https://arara.wildapricot.org/Contact>

President: Linda Olson

Vice-President: Peter Anick

Secretary: Karen Steelman

Treasurer: Troy Scotter

Board Members:

- Kirk Astroth
- Amanda Castañeda
- Tim Dodson
- Teresa Rodrigues
- Anne Stoll



Program and Abstracts

ARARA 2023 Conference

March 9–13, 2023



Welcome to Tucson!

49th Annual ARARA Conference, 2023

Welcome to Tucson, Arizona! It gives me great pleasure to greet all in attendance at what is sure to be a memorable event, with long-anticipated joy of old and new friends and lots of rock art. Special thanks to many: to Aaron Wright for his leadership, to the local Indigenous peoples, to the land management organizations, the field trip organizers, the city of Tucson, and the private landowners who have granted permission for ARARA members to visit rock art in this beautiful landscape. Your willingness to coordinate and assist ARARA with the 2023 Annual Conference is commendable. Thank you for helping the organization fulfill its mission “to communicate to a broad audience the significance of rock art as a non-renewable resource of enduring cultural value and an important expression of our shared cultural heritage.”

As a volunteer-based organization, our members—each of you—step forward to volunteer to keep this organization dynamic and responsive to the needs of the field. Because of you we offer these conferences in various regions to learn about their rock art traditions. You enable us to work together to research, educate, and conserve rock art. Please thank the many volunteers for their dedication and contributions to ARARA. Please personally honor the board members going off the board: Margaret Berrier, Amy Gilreath, and David Kaiser. I am grateful for their dedication and look forward to their continuing involvement in ARARA’s business. Also make time to welcome the incoming board members and personally thank them for their willingness to serve ARARA. Thank the committee chairs and all who make ARARA a successful organization.

ARARA needs and wants *you* to join us and bring your talents, expertise, and dedication to serve on ARARA’s committees. Please attend the committee lunch meetings and reach out to Board Members or me to learn more about how you can be involved.

Safe travels to all, good health, and great enjoyment as we embark on our latest ARARA adventure.

Respectfully submitted,

Linda Olson, ARARA President

2023 ARARA Conference Acknowledgments

- Auction: Evelyn Billo, many helpers and donors
- Audiovisual coordinator: David Kaiser
- Awards: Anne Stoll and committee members
- Conference Coordinator: Donna Gillette
- Conference Logo: Janine Hernbrode
- Conference Registration Coordination: Troy Scotter

- Conference Program Layout: Ken Hedges
 - Education Awards: Tim Dodson and committee members
 - Field Trip Leaders are Acknowledged on page 12
 - Indigenous Blessing: Samuel Fayant, Tohono O’odham Nation Cultural Specialist
 - Local Chair: Aaron Wright
 - Publicity and Planning Committee: Margaret Berrier
 - Program Co-chairs: Lawrence Loendorf and Amanda Castañeda
 - Program Special Speakers: Polly Schaafsma and Julio Amador Bech
 - Editor of *La Pintura*: Linda Hylkema
 - Registrar: Kim Jurik
 - Vendor Room: Margaret Berrier
 - Volunteer Coordinator: Teresa Saltzman
 - ARARA Board of Directors for their help in many ways
- Many people 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 Annual Business Meeting

Sunday, March 12, 2023, 8:00 a.m., Catalina Ballroom

Agenda

- I. Call to Order—President Linda Olson
- II. Officers’ Reports
 - a. President, Linda Olson
 - b. Vice President, Peter Anick
 - c. Secretary, Karen Steelman
 - Minutes, 2022 Annual Meeting, Virtual Conference (published in *La Pintura*, Vol. 48(2), 2022)
 - MOTION NEEDED*: Approval of Minutes
 - d. Treasurer, Troy Scotter
- III. Committee Reports
 - a. Standing Committee Reports
 - i. Archives Committee, Diane Hamann
 - ii. Conservation Committee, Linea Sundstrom
 - iii. Education Committee, Tim Dodson
 - iv. Membership Committee, Troy Scotter
 - v. Nominating Committee, Aaron Wright
 - Introduction of new board members
 - vi. Publications Committee, Ken Hedges
 - b. Ad Hoc Committees
- IV. Conference Report
- V. New Business
 - ACTION NEEDED*: Elect 3 ARARA members to serve on the 2022-2023 Nominating Committee
- VI. Adjourn



ARARA 2023 Conference Program

Sheraton Tucson Hotel and Suites
March 9-13, 2023

Thursday, March 9, 2023

- 8:30 a.m. – 4:30 p.m. Board of Directors Meeting, *Sage Room*
3:00 – 7:00 p.m. Conference Registration, *Sabino Foyer*

Friday, March 10, 2023

- 7:30 a.m. Field Trip Troubleshooting, *Sabino Foyer*
All Day Field Trips

*Field trip meeting times and places included in your registration information.
Be sure to have your information with you.*

- 4:30 – 8:30 p.m. Conference Registration, *Sabino Foyer*
5:00 – 8:00 p.m. Vendor Room Setup, *Pima Room A & B*
5:30 – 7:30 p.m. **Reception, Sabino Ballroom**

No-Host Bar with Light Refreshments and Conversation with friends and ARARA Board Members. Tohono O'odham Community College Art Exhibition

- 8:00 – 9:00 p.m. Presenter Meeting and delivery of PowerPoint files, *Catalina Ballroom, Mesa Room alternative*
Poster Setup, *Catalina Ballroom*

Saturday, March 11, 2023

- 7:30 – 8:00 a.m. Vendor Room Setup, *Pima Room A & B*
7:30 – 8:30 a.m. Poster Setup, *Catalina Ballroom*
Auction items may be delivered to the Auction Committee, *Sabino Ballroom*
8:00 – 8:30 a.m. Coffee and Light Refreshments, *Catalina Foyer*
Vendor Room Open, *Pima Room A & B*
Vendor Room open during breaks, lunch, and Saturday after last session until 6 p.m.
8:00 – 10:00 a.m. Conference Registration, *Catalina Foyer*
8:30 – 9:50 a.m. **Conference Welcome and Opening Presentations, Catalina Ballroom**
8:30 Welcome and Announcements, *Linda Olson, ARARA President*
8:40 Land Acknowledgement, *Linda Olson, ARARA President*
8:40 Indigenous Blessing, *Samuel Fayant, Tohono O'odham Nation Cultural Specialist*
8:50 Welcome from the AZ SHPO
9:00 Plenary Speaker, **Dr. Polly Schaafsma**
“What Is Perceived Is What is Believed: Experiencing Rock Art”
9:50 – 10:20 a.m. Break
Vendor Room Open, *Pima Room A & B*

- 10:20 – 11:15 a.m. Session 1 | Rock Art of Southern Arizona, Catalina Ballroom**
- 10:20 Southern Phoenix Basin Rock Art – *Chris Loendorf*
- 10:35 Acoustic Effects and Associated Emergence Imagery at Three Rock Art Sites in Southern Arizona – *Janine Hernbrode*
- 10:55 Charlie Bell Canyon: A Rock Art Site in the Western Papaguería – *Richard Martynec and Sandra Martynec*
- 11:15 – Noon Session 2 | Recent Efforts and Resources for Conservation, Catalina Ballroom**
- 11:15 Save History: A Campaign to End Archaeological Resource Crime – *Ashleigh Thompson and Shannon Cowell*
- 11:30 Gila River Indian Community Rock Art Conservation – *Emery Manuel*
- 11:45 Archeological Resource Conservation at the Indian Head Site in Big Bend National Park, Texas – *Tom Alex*
- Noon – 1:30 p.m. Lunch on your own**
- Vendor Room Open, *Pima A & B*
- Committee Meetings with pizza:
- Publications Committee Meeting, *Catalina Ballroom*
- Conference Committee Meeting, *Sage Room*
- Education Committee Meeting, *Catalina Ballroom*
- 1:30 – 3:05 p.m. Session 3 | Rock Art from the Landscape View, Catalina Ballroom**
- 1:30 The Petroglyphs of the Ridge Ruin Archaeological District – *Richard Rogers*
- 1:45 Researching Painted Petroglyphs at Willow Creek/Belfast (CA-LAS-32) on the California-Great Basin Periphery – *Eric Ritter, Jon Harman, Mary K. Bobbitt, Amy Marymor, Elisa Correa, Jake Martin, Sheila Harman, and Adam M. Crowther*
- 2:05 Northern Rio Grande, U.S.A., Archaic Petroglyphs: Views from the Ridgetops – *Robin Gay Wakeland*
- 2:25 Between “Rock Art Landscape” and Lindosa Panels: Archaeological Analysis of the Construction of the “Rock Art Landscape” of Serranía La Lindosa and the Spatial Distribution of the Panels of Cerro Azul and Nuevo Tolima – *Cristian Camilo Sánchez*
- 2:45 San Francisco Wash: A Landscape Study – *Peter Pilles*
- 3:05 – 3:45 p.m. Poster Session & Break, Catalina Ballroom**
- Light Refreshments, *Catalina Foyer*
- Vendor Room Open, *Pima A & B*
- Poster Presentations**
- Rock Art from the Canyons of the Ancients National Monument, Colorado (U.S.A.) – *Radosław Palonka, Katarzyna Ciomek, Bolesław Zych, Polly Schaafsma, Vincent M. MacMillan, Robert Słaboński, and Jakub Śliwa*
- The Mystery of Site 144 – *Lawrence Loendorf*
- Traditions Set in Stone: Exploring Apsáalooke Connections to Rock Art on the Middle Fork of the Powder River – *Amanda Castañeda, Aaron Brien, Lawrence Loendorf, and Julie Francis*

- 3:45 – 5:10 p.m. **Session 4 | In Depth Motif Analyses, Catalina Ballroom**
- 3:45 It's About the Trees: A Unique Marker of Ritual Narrative in the Rock Imagery at Serra da Capivara National Park, Piauí State, Brazil – Anne Stoll and George Stoll
- 4:00 Comparative Analysis of Pecos River Style and Teotihuacan Felines – Diana Rolón
- 4:20 Swastikas as Spacetime – Angeline Duran
- 4:40 Awanyu, the Horned Serpent – Richard Jenkinson
- 4:55 The Symbolism of Swirls and Serpentine Lines in Pre-Dynastic Times on Some Scenes of Rock Art in Egypt – Samah Gohar

5:10 – 6:00 p.m. Vendor Room Open, *Pima A & B*

6:00 – 7:30 p.m. Auction, *Sabino Ballroom*

Sunday, March 12, 2023

8:00 – 9:00 a.m. **Business Meeting, Catalina Ballroom**

Members please attend

8:30 – 10:00 a.m. Conference Registration, *Catalina Ballroom*

9:00 – 9:15 a.m. Break

Vendor Room Open, *Pima Room A & B*

Coffee and Light Refreshments, *Catalina Foyer*

9:15 – 11:55 a.m. **Session 5 | Recording and Analytical Methods of Rock Art, Catalina Ballroom**

9:15 Indian Rock House Report – Robert McBride

9:30 Stable Confusion: Using Artificial Intelligence to Help Understand Rock Art – Mark Willis

9:50 The IFRAO Color Card Revisited: Blinded by the Light? – Kirk Astroth

10:05 The Advantages of Mid-Level Recording: Examples from Pictograph Sites in Southwestern Montana – Mavis Greer and John Greer

10:25 – 10:40 a.m. Break

Vendor Room Open, *Pima Room A & B*

Coffee and Light Refreshments, *Catalina Foyer*

10:40 – 11:55 a.m. **Session 6 | Recording and Analytical Methods of Rock Art, Continued**

10:40 Reading Between the Petroglyphs: Incised Art on Maine's Kennebec River – Peter Anick, Walter Van Roggen, and Melanie Mayhew

11:00 The Hearthstone Project: Radiocarbon Dates for Pecos River Style Pictographs – Karen Steelman

11:15 Hunter-gatherer Use of Space Through Rock Art Technology: A Physio-chemical Approach from Argentinian Patagonia – Lucía Gutiérrez, Analía Castrol Esnal, and María Ana Castro

11:35 Western Message Petroglyphs: Syntax, Themes, and Voice – Leigh Marymor

Noon – 1:30 p.m. Lunch

Vendor Room Open, *Pima A & B*

- Noon – 1:30 p.m. Committee Meetings with pizza:
 Conservation Committee Meeting, *Catalina Ballroom*
 Archives Committee Meeting, *Sage Room*
 Website Committee Meeting, *Catalina Ballroom*
- 1:30 – 3:05 p.m. **Session 7 | Rock Art in Arid North America—Mexico and the American Southwest, *Catalina Ballroom***
- 1:30 The Rock Art in Cucurpe, Sonora, Continues to Surprise Us: La Simona, an Example – César Quijada and Beatriz Menéndez
- 1:50 Distribution of the Rock Art Sites of Cucurpe: What Could it Suggest? – Beatriz Menéndez Iglesias
- 2:10 The Little Great Murals – Jon Harman
- 2:30 Birds, Anthropomorphs, and Sandals: Recent Research by the Polish Archaeological Project in Sandstone Canyon, Southwestern Colorado – Katarzyna Ciomek, Radosław Palonka, and Jakub Śliwa
- 2:45 p.m. – 3:30 p.m. Break
 Vendor Room Open, *Pima Room A & B*
Vendor Room Closes After this Break. Support ARARA's Vendors and ARARA through their donations
- 3:30 – 4:30 p.m. **Session 8 | Rock Art on the Great Plains, *Catalina Ballroom***
- 3:30 A Girl Can Dream: Recognizing Women's Vision Quest Sites in the Great Plains – Linea Sundstrom
- 3:50 Twins on the Wall: Spring Boy and Lodge Boy Images – David Kaiser and James Keyser
- 4:10 Ben2 Rockshelter: A New Vertical Series Tradition Site in Wyoming – James Keyser and David Kaiser
- 5:00 – 6:30 p.m. **BANQUET**
 No-Host Bar, *Sabino Ballroom*
Banquet Speaker, Dr. Julio Amador Bech
 “Animal Symbolism in the Rock Art of the Sonoran Desert”
 Awards – following speaker
 Education Awards Presentation – following awards
- Monday, March 13, 2023**
- 7:30 a.m. Field Trip Troubleshooting, *Hotel Lobby (if assistance is needed)*
- All Day Field Trips
Field trip meeting times and places included in your registration information. Be sure to have your information with you.

2023 ARARA Conference Abstracts

Alphabetical by primary author

Program Chairs – Amanda Castañeda and Lawrence Loendorf

Tom Alex (National Park Service)

Archeological Resource Conservation at the Indian Head Site in Big Bend National Park, Texas (Report)

Relatively obscure and protected by its anonymity, the Indian Head Site has succumbed to the impacts from increased public visitation during the past decade. Although people have known about the site for the past 100 years, modern social media has brought increased attention to this complex site that is held in reverence by affiliated American Indian people. The number of people now visiting the site brings an increasing proportion of unscrupulous humans that damage the rock imagery panels and other important archeological features. Vandalism and graffiti are increasing, incidents of illegal artifact collecting are increasing, and the foot traffic over fragile and highly erodible soils is increasing the rate of soil erosion. The entrance to the site is unfortunately difficult to control or to monitor. There is currently no publicly available NPS educational information about the site. This paper discusses these problems and the current approach to protecting this important cultural heritage site.

Peter Anick (Brandeis University), Walter van Roggen (Northwoods Software Company), and Melanie Mayhew (The State Museum of Pennsylvania)

Reading Between the Petroglyphs: Incised Art on Maine's Kennebec River (Regular Paper)

Indian Rock, a bedrock ledge projecting into Maine's Kennebec River, contains over a hundred pecked figures, including anthropomorphs, canoes, moose, and "thunderbirds". Based on style and subject matter, these are thought to date to the Late Woodland period. Last year, while taking close-up photographs of the peck marks, we found evidence of very faint, finely incised imagery that appears to predate the pecked petroglyphs. Natural scratches, modern graffiti, and the pecked figures themselves obscure much of the earlier imagery. However, small surviving sections reveal long, flowing parallel lines, delicate rectilinear patterns suggestive of basket weaves, and other abstract motifs that bear little resemblance to pecked and incised imagery found elsewhere in Maine. We describe our efforts to document the faint and incomplete images and compare the designs to portable and non-portable incised art in the Northeast. They may represent an early style not previously observed in the region.

Kirk Astroth (ARARA member)

The IFRAO Color Card Revisited: Blinded by the Light? (Report)

Over 30 years ago, Bednarik proposed the adoption of the IFRAO (International Federation of Rock Art Organizations) color card for photographing and documenting petroglyphs and pictographs against a standard set of colors. Bednarik suggested that the results of correcting the images based on this internationally used scale can then be used to assess the darkness of varnish formation on petroglyphs, thus contributing to efforts to develop a relative chronology of images. These comparisons can be useful in trying to provide a relative dating for rock imagery. However, the IFRAO card suffers from a glossy coating that reflects sunlight, even in cloudy settings. My own research in 2020 using the IFRAO scale revealed some of the problems and limitations of using this scale in rock art research. This presentation summarizes the experiences of several researchers using the IFRAO card in rock imagery research as well as other color cards such as the DGK and X-Rite cards. This presentation proposes that it is time for the field of archaeology to develop a new standard method for color and varnish analysis in archaeological research that is more up-to-date, easier to analyze and provides more consistent results. Newer methods are proposed.

Amanda Castañeda (Wyoming State Historic Preservation Office), Aaron Brien (Crow Tribal Historic Preservation Office), Lawrence Loendorf (Sacred Sites Research), and Julie Francis (Independent Researcher)

Traditions Set in Stone: Exploring Apsáalooke Connections to Rock Art on the Middle Fork of the Powder River (Poster)

The Wold Rock Art District consists of four rock art sites along the Middle Fork of the Powder River in Central Wyoming. Recent work conducted by Sacred Sites Research and the Wyoming State Historic Preservation Office focused on a full documentation of the rock art and during these investigations, some of the imagery was recognized for its connection with the Apsáalooke (Crow) culture. In particular, an incised scene at one of the sites depicts a well-known Apsáalooke story of Spring Boy trapped on top of the sun dance lodge after he was captured by an adversary. Here we summarize several additional aspects of the rock art and surrounding landscape that can be strongly associated with Apsáalooke stories and traditions. This includes an identifiable ceremony, ties with vertical series rock art, other Spring Boy and Lodge Boy adventures, and cultural stories associated with the red sandstone cliffs of the Chugwater Formation. This paper highlights the benefits of using oral traditions and Indigenous knowledge for better understanding rock art.

Katarzyna Ciomek (Jagiellonian University), Radosław Palonka (Jagiellonian University and Crow Canyon Research Institute), and Jakub Śliwa (Independent Researcher)

Birds, Anthropomorphs, and Sandals: Recent Research by the Polish Archaeological Project in Sandstone Canyon, Southwestern Colorado (Report)

Sandstone Canyon, located in the Canyons of the Ancients National Monument, southwestern Colorado within the central Mesa Verde region, contains large rock art panels with depictions from different time periods. Ancestral Pueblo and historic Ute petroglyphs as well as historic inscriptions are the main evidence of the human presence in this area. They include anthropomorphic and zoomorphic depictions, narrative scenes, and numerous geometric motifs. This paper presents the latest discoveries made in the one large alcove site (5MT22208) in Sandstone Canyon during the 2022 field season and discusses the results of the documentation and preliminary analysis of the newly discovered petroglyphs in the context of previously known depictions from this and other sites from the area. In addition, some digital methods used during the process of rock art documentation and subsequent analysis and visualization will be presented, as they allow for a more detailed analysis of details of faint or poorly visible rock art images.

Angeline Duran (ARARA member)

Swastikas as Spacetime (Regular Paper)

Swastikas and intersected s-curves are petroglyph motifs appearing throughout the North American Southwest and Mexico. This paper proposes that these symbols are synonymous with quincunxes and quadripartite flowers with distinct central axes that are painted on the interior surfaces of hemispherical bowls from the Late Sedentary Hohokam, Late Pithouse Mogollon, and Classic West Mexican periods. This paper further describes how these symbols, in both rock art and ceramic media, can be interpreted through the symbolic lexicon of Teotihuacan to represent the concept: “a cosmos that is made of space-time”; which was likely a core pan-Southwestern/pan-Mesoamerican cosmological concept that was documented and proliferated by Quezalcoatl cult culture centers such as Teotihuacan and Tula. The interpretation of the quincunx and quadripartite flower as “space time” does not preclude other metaphors for these symbols that have been suggested by other scholars, such as “Quezalcoatl as the planet Venus,” “movement in four directions,” and “generative forces,” but instead describes the foundation from which these and other additional, more concrete, worldly, and context specific metaphors are extrapolated.

Samah Gohar (Institute of Near Eastern Civilizations, Zagazig University)

The Symbolism of Swirls and Serpentine Lines in Predynastic Times on Some Scenes of Rock Art in Egypt (Report)

The value of balance, expressed as symmetry, infused Egyptian art from the earliest times. The rock art from the Predynastic Period establishes this value, The labyrinth decoration (swirls) and serpentine lines were the most important artistic styles known to the ancient done according to certain rituals, stemming from his spiritual beliefs or perhaps for motives psychological and philosophical. Religious rituals were an important stage. In the life of the ancient Egyptian since prehistoric times, the spiral decoration and some lines (serpentine, dots, straight, zigzag) abounded in several locations on the rock art in Egypt, and also appeared on the decoration of the pottery vessels and some statues, and this decoration developed in the dynastic era, where some symbolism gods represented in spiral like Mehen (mḥn). This research will discuss this art in Egypt and will follow its emergence and development, by reviewing examples of it on rock art, decoration of the pottery vessels and other archaeological evidence, and trying to explain it and clarify the reason for its spread, and knowing its psychological, artistic and ideological purpose.

Mavis Greer and John Greer (Greer Archaeology)

The Advantages of Mid-Level Recording: Examples from Pictograph Sites in Southwestern Montana (Regular Paper)

How to record rock art and to what level is a popular topic. Most procedural manuals focus on detailed recording, and all recording projects, including government contracts, are increasingly oriented toward a detailed, complete, and final site record. This level of recording generally should not be the first stage, but the final stage (equivalent to complete excavation) because it is time consuming and costly and is not possible or reasonable for many sites, due several variables. Therefore, we advocate mid-level recording and evaluation for further work, not just for sites with only a few images or limited access, but initially for most sites. Mid-level recording involves gathering enough information to complete a site form: GPS legal location and map plotting; description, photographs, and field sketches of site attributes and images; and evaluation regarding future detailed recording and analysis. This level of recording should apply to sites with no previous site record and also those with old forms containing nothing but a general location and a statement like “rock art present.” The benefits of mid-level recording are discussed relative to four pictograph sites in southwestern Montana we visited in 2022.

Lucía Gutiérrez, Analía Castro Esnal, and María Ana Castro (University of Buenos Aires)

Hunter-gatherer Use of Space Through Rock Art Technology: A Physico-chemical Approach from Argentinian Patagonia (Regular Paper)

Casa de Piedra de Roselló is an archaeological site that has drawn attention in the Patagonia region because of its early dates (9000 cal. years BP). This site is located in a geographical zone (southwestern Chubut) that has not received enough attention, if compared to other areas of this arid landscape. In this context, archaeological research carried out so far, particularly studies in lithic technology, has proven that the peopling of this area is strongly related to that of the neighboring Santa Cruz Province and Chilean Aysén Region. This idea has been reinforced by morphological analysis carried out in rock art depicted in the caves and shelters of this important site. However, as every technology, rock art requires an instance of production, which is usually put aside in rock art studies. This research presents the advances of the first technological analysis carried out in this Patagonian area, mainly by physico-chemical approaches (particularly Raman spectroscopy). Addressing the technological side of rock art is expected to deeply contribute to the understanding of the peopling of this region and to the comprehension of the importance that this materiality had for human groups during the Holocene.

Jon Harman (DStretch.com)

The Little Great Murals (Regular Paper)

The Great Murals of Baja California and Baja California Sur are a rock art tradition featuring large paintings of humans and animals. Not often mentioned are the smaller paintings that accompany the large ones. In this talk I will consider these small paintings and show examples from several Great Mural sites including Flechas, Monos de San Juan, and Cueva Murciélago. I think it is probable that many of these paintings were made by children learning the Great Mural style. I will also discuss what this means for theories about the art. It seems to me that the shamanism explanation has a problem if these paintings were a family affair.

Janine Hernbrode (Independent Researcher)

Acoustic Effects and Associated Emergence Imagery at Three Rock Art Sites in Southern Arizona (Regular Paper)

Acoustic effects are familiar components of rock art sites where generated sounds interact with the landscape enabling echoes, resonance, and reverberations. I have studied two petroglyph sites and one pictograph cave in Southern Arizona that utilize natural landscape structures to amplify and direct sound waves and enable voice or bell rock chiming and/or abrading to focus over a distance. Two sites have areas where sound diversification can create an immersive experience with sound seeming to swirl and come from many directions. Some societies may attribute acoustic properties to transcendence and other spiritual or supernatural beliefs and thus overlay an additional mysteriousness and significance to the site. Each of the points where the megaphone originates at these sites have petroglyph or pictograph panels with barbell related imagery. This imagery has been found to be associated with emergence and thus transcendence sites for the Ancestral Tohono O'odham.

Richard Jenkinson (ARARA member)

Awanyu, the Horned Serpent: Tracing a Motif Through Time (Report)

The horned or feathered serpent has appeared in the rock art of the Southwest for at least the last three thousand years. This presentation will examine this motif as it has appeared from Archaic times up until the present. The serpent appeared in the Barrier Canyon Style rock art of southern Utah as well as in the art of the Mayan and Aztec cultures of Central Mexico. It is very prominent in the Native American cultures associated with the kachina religion in New Mexico and Arizona, and it is still commonly seen in artwork from these groups today.

David Kaiser and Jim Keyser (Oregon Archaeological Society)

Twins on the Wall: Spring Boy and Lodge Boy Images (Regular Paper)

Just outside Billings, Montana the Hayes pictograph site shows three painted anthropomorphs, two of which are identified as the twins Spring Boy and Lodge Boy. These figures are prominent culture heroes in the tales and traditions of the Crow Indians and other Plains tribes. Similar Spring Boy/Lodge Boy images have been identified at around twenty rock art sites on the northern Plains as well as on shields and other artifacts. The authors analyze the figures at the Hayes site alongside these other images to determine what constellation of elements were used to denote Spring Boy/Lodge Boy figures and their associated images.

James Keyser and David Kaiser (Oregon Archaeological Society)

Ben2 Rockshelter: A New Vertical Series Tradition Site in Wyoming (Regular Paper)

The Ben2 rockshelter (48JO4557), located in the eastern Bighorn Mountains foothills, contains a complex horizontal sequence of red-painted Vertical Series tradition images and other charcoal-drawn images that do not appear to be related to the red pictographs. Identified Vertical Series tradition imagery at the site is a mix of local and regional motifs. Local motifs include bear paws related to those found at several other sites in this area of the Plains and tipi images so far found only here. More widespread images include a distinctive stick-figure human found only at one other northern Montana site, and line-dot sequences found from north to south in the regional distribution of the tradition. Comparisons are made with the known corpus of Vertical Series tradition imagery.

Chris Loendorf (Gila River Indian Community)

Southern Phoenix Basin Rock Art (Report)

The Akimel O'Odham have lived along the middle Gila River in the southern portion of the Phoenix Basin since Euroamericans first visited the region in the late 1600s. The Gila River Indian Community (GRIC) was established to encompass their villages by an act of the US Congress in 1859. As a result, this large portion of the basin was never settled by non-indigenous populations, and the archaeological remains including petroglyphs within the community are consequently comparatively unknown. Importantly, the Akimel O'Odham still continue to produce rock art, and to perform traditional religious practices associated with petroglyph sites. Thus, the GRIC has an unbroken and largely unknown record of petroglyphs, pictographs, and geoglyphs that spans at least the last several thousand years. Some of the stylistic motifs that typify the region have received little attention from researchers, and this presentation explores these designs and their associated traditions.

Lawrence Loendorf (Sacred Sites Research)

The Mystery of Site 144 (Poster)

A recently discovered site, 24CB144, in the Pryor Mountains, Montana appears to have been identified with a site tag at some point in the past but never recorded. This is unfortunate because the site is an important addition to understanding regional rock art. It contains two linear body anthropomorphs associated with a stenciled hand and a possible atlatl or atlatl dart. The best sites for comparison are at the Wold Rock Art District near Barnum, Wyoming where there are numerous stenciled handprints. A geoarchaeological study at the Wold sites indicates that some of these handprints were probably made while standing on the Kaycee Terrace, now no longer found in the immediate area, but found upstream and downstream of the sites. This means the stenciled handprints likely date somewhere between 4000 and 1800 RCYBP. These ages allow us to estimate an Archaic age for Site 144.

Emery Manuel (Gila River Indian Community)

Gila River Indian Community Rock Art Conservation (Report)

For over a decade, the Gila River Indian Community Cultural Research Management Program (GRIC-CRMP) has been actively involved in the protection and management of the many rock art sites within the community. These sacred locations play an important role in ongoing traditions of the modern community, and they are therefore of considerable significance to member of the GRIC. Because of the sacred and sensitive nature of the extensive rock images in the community, GRIC-CRMP efforts have focused stopping the destruction of rock art, mitigating impacts to the Community caused by the damage. These efforts include the removal of painted graffiti from rock surfaces, cleaning trash, dispersal of camp fire rings, documentation of rock art, as well as placing warning signs in the vicinity of sites. GRIC-CRMP also actively monitors rock art sites both through regular field checks, and with game cameras that transmit photographs of trespassers in real time. As a result of these efforts, GRIC-CRMP has now cleaned all of the painted graffiti from the rock art sites within the GRIC.

Richard Martynec and Sandra Martynec (Independent Researchers)

Charlie Bell Canyon: A Rock Art Site in the Western Papaguería (Regular Paper)

Charlie Bell Canyon, which is in one of the most xeric regions in the southwestern Papaguería, witnesses eight inches of annual rainfall, whereas areas to the west average less than three inches. Because of this water is a critical concern for anyone traveling through this part of the Southwest, especially on foot. The likely presence of a reliable seep and that it offers traveler's fairly easy passage through the rugged Growler Mountains has made Charlie Bell Canyon an attractive location for millennia resulting in numerous archaeological sites, scattered artifacts, petroglyphs, trails and features. Among the 3,504 petroglyphs in the canyon, 2,461 are on a ridge north of the well. The remainder is along trails and in concentrations. The Archaic-appearing petroglyphs, which comprise more than 50 percent and perhaps as much as 75 percent of the images in the canyon, fit comfortably into the Great Basin Abstract style and the Western Archaic Rock Art tradition. Several petroglyphs can be assigned to the Ceramic period Hohokam and Patayan and still others to historical and modern visitors. This presentation will describe the petroglyphs, discuss their locations and orientations and explore possibilities about who created them and attempt to place their creators in time.

Leigh Marymor (Museum of Northern Arizona)

Western Message Petroglyphs: Syntax, Themes and Voice (Regular Paper)

Disseminated among eight western states, Western Message Petroglyphs are at their core messaging texts that date to the latter part of the 19th Century and opening years of the 20th. In previous publications I have described defining attributes of Western Message Petroglyphs based on patterned landscape contexts, image content, source material, and common authorship. The present work takes a fine grained look at the formal structure of classic WMP texts. The investigation involves categorization of formal structures, syntax, narrator points of view, common themes, picture-word choice, and “voice.” The analysis leads to the proposal that the WMPs can be read as picture-written prose poems whose vocabulary relies on culturally appropriated imagery to express the author’s sometimes poignant, sometimes ironic, views on the human condition.

Robert McBride (ARARA member)

Indian Rock House Report (Report)

Since receiving the 2021 Undergraduate Student Research Award, I have been working on learning and refining the techniques used in digital illustration as it pertains to documenting Rock Art. For this project, my goal is to provide detailed high-quality renderings of the images at the Indian Rock House site. I have decided to also provide a stratigraphic analysis using a technique for data organization called the “Harris-Matrix” to demonstrate the layering of carvings (Harris 1989). This assessment will help provide a context for a singular image in association with others present at the site and has been shown to be an effective method of analysis (Simek 2021). In my presentation, I will demonstrate the importance of the complex stratigraphy with a small section of the image panel and how I have been documenting this data. Using the Harris technique, I will highlight the intricate nature of the images and describe some of the difficulties I have encountered through this process. Turning complex three-dimensional dynamic images into a flat and static state is a challenge, but it is a very rewarding way to produce hard data that can be used by all.

Beatriz Menéndez Iglesias (Gerda Henkel Foundation)

Distribution of the Rock Art Sites of Cucurpe: What Could It Suggest? (Regular Paper)

Cucurpe valley, in northeastern Sonora, is characterized by a high concentration of rock art. In the 1970s, Professor Armando Quijada Hernández cataloged more than 23 sites with rock art in the region. At the same time, Dr. Beatriz Braniff also reported these sites, establishing the Pima-Opata border in this territory. The high concentration of these rock art manifestations, both in painting (the most abundant technique) and in engraving, and the scarce number of investigations in the region, led to the proposal of the project Rock Art in Northern Sonora. Between stones and pigments, which is a continuation of the one that began to be developed in 2020. Considering the iconography present and the location of the sites, we questioned what could be the relationship between them. The first observations on their distribution in shelters or small caves or on rock ledges and around rivers are presented here, linking it with the iconography present in them. What could be the hypothesis about their functionality?

Radosław Palonka (Jagiellonian University and Crow Canyon Research Institute, Katarzyna Ciomek (Jagiellonian University), Bolesław Zych (Jagiellonian University), Polly Schaafsma (Museum of New Mexico), Vincent M. MacMillan (Canyon of the Ancients National Monument/U.S. Bureau of Land Management), Robert Słaboński (Independent Researcher), and Jakub Śliwa (Independent Researcher)

Rock Art from the Canyons of the Ancients National Monument, Colorado (U.S.A.): Digital Documentation, Analysis, Visualization, and Publication (Poster)

This poster presents the application of digital methods in archaeology for detailed documentation and subsequent visualization and publication of Ancestral Pueblo, historic Ute petroglyphs and paintings/pictographs as well as historical inscriptions from two areas investigated by Polish Archaeological Project in southwestern Colorado, Montezuma County: Lower Sand Canyon locality and Sandstone Canyon. Various digital methods were applied: terrestrial laser scanning (TLS), close-range photogrammetry and other advanced digital photography techniques including RTI/Reflectance Transformation Imaging; the last one was used especially for detailed documentation and interpretation of details of poorly preserved rock art panels. The interpretation and analysis were supported with extensive consultations with rock art scholars and members of the Hopi tribe; all together serve as a real help for the heritage management and future protection of the sites.

Peter Pilles (Coconino National Forest)

San Francisco Wash Rock Art: A Landscape Study (Regular Paper)

In the past, researchers have commented on the apparent lack of rock art in the Flagstaff area compared to other parts of the Southwest. However, it is now known that rather than a diffuse distribution, rock art is concentrated in the rocky canyons that cut through the region. Although several rock art documentation projects have been conducted in these areas, they have typically focused solely on the rock art, with little to no attention paid to other site types. San Francisco Wash has one of the

densest concentrations of rock art in the Flagstaff area. However, how does that rock art fit into the overall land use and social organization of Sinagua society? The San Francisco Wash Project seeks to address these questions with a long-term study of not only rock art within the canyon, but also the place of rock art in the larger Sinagua community of the San Francisco Wash locality. This report presents initial results suggested by 77 sites, 31 of which contain rock art, recorded within a 1 by 3 mi. study area centered on a portion of the San Francisco Wash canyon.

César Quijada (Instituto Nacional de Antropología e Historia, Centro INAH Sonora) and Beatriz Menéndez (Gerda Henkel Foundation)

The Rock Art in Cucurpe, Sonora, Continues to Surprise Us: La Simona, an Example (Regular Paper)

In October 2022, during the fieldwork, in Dr. Menéndez project there was news about a place existing with petroglyphs, at the north of Cucurpe population. This is close to Saracachi creek where there are sites with rock art, some of them already presented, in different ARARA Conferences. The site La Simona is a rocky shelter at the top of a hill with an unfortunate state of conservation, because of the loss of a layer where the engravings were done. Surprisingly checking the exterior and its upper part of that place, we found a series of little holes on the rock's edge forming a geometric figure. La Simona is the second site that presents this type of figure, looking up at the sky, in the Cucurpe region and the third in the state of Sonora. This work is presented to know if other investigators have found figures as the previous one located, or if it is something particular from Sonora.

Eric Ritter (BLM), Jon Harman (DStretch.com), Mary K. Bobbitt (BLM), Amy Marymor (Independent Researcher), Elisa Correa (BLM), Jake Martin (USFS), Sheila Harman (Independent Researcher), and Adam M. Crowther (BLM)

Researching Painted Petroglyphs at Willow Creek/Belfast (CA-LAS-32) on the California-Great Basin Periphery (Regular Paper)

The well-known, multi-motif complex Willow Creek/Belfast petroglyph site (CA-LAS-32) in northeast California at the edge of the Great Basin discloses painted petroglyph images providing expressive insights into past and contemporary indigenous peoples' behavior. The selective application of red paint or pigment on petroglyphs through careful study, including DStretch application, shows possible pigment preparation, a variety of painting techniques, and likely long-term periodic painting episodes. Some petroglyphs were produced to contrast with natural reddish rock coatings. The archaeological associations, offerings, paint application variations, ethnography, and informant testimony infer a principally ritual and cosmological association. Painting of certain petroglyphs likely emphasized the location and greater landscape, its place in the spiritual world of the local present-day and ancestral tribal members and visitors. The process of visitation, offerings, and painting was seemingly done to provide economic and ethnic continuity.

Richard Rogers (Northern Arizona University)

The Petroglyphs of the Ridge Ruin Archaeological District (Report)

Originally documented by the Coconino National Forest c. 1988 in preparation for submitting the Ridge Ruin Archaeological District for the National Register of Historic Places, the petroglyphs of the RRAD have received little attention. Two sites with a total of four petroglyphs on four panels are understandably unimpressive. Even taking into account four recently-identified petroglyph sites within the district, the concentration of petroglyphs is far lower than at the nearby Angell Petroglyph Complex, Rattlesnake Petroglyphs, Turkey Tanks, and Lizard Man Village. However, some of these petroglyphs, presumably produced by the Northern Sinagua residing in the vicinity of or visiting Ridge Pueblo, are distinctive when compared to other documented Northern Sinagua petroglyph sites. Ridge Pueblo itself is not a typical Northern Sinagua site, as evidenced by its two-story pueblo with finely-crafted Chacoan-like walls at its core, the "richest" excavated burial in the Southwest, the remains of macaws, and ceremonial architecture including two ballcourts (indicating Hohokam influence). This report will describe the inventory of petroglyphs documented thus far within the district and identify images that are relatively atypical in the context of published inventories of Northern Sinagua petroglyph sites.

Diana Rolón (Shumla Archaeological Research and Education Center)

Comparative Analysis of Pecos River Style and Teotihuacan Felines (Regular Paper)

Hunter-gatherer artists in the Lower Pecos Canyonlands of southwest Texas and northern Mexico produced complex, polychromatic murals. Radiocarbon ages for these Pecos River style (PRS) paintings range from 1400 to 3500 years BP. Felines are a dominant zoomorphic figure in the murals. Our analysis of 19 feline figures across 11 sites revealed distinctive, recurring physical attributes. These include lines and dots emanating from mouths and noses, a motif previously interpreted as breath or speech. Other physical attributes include short lines running along the feline's body, long lines extending from the nape and underside of the neck, and lines protruding from behind the top of the feline's front legs. In Mesoamerica, artists used similar

graphic devices to denote action, sounds, scents, and energies in motion linked to spiritual substances and ritual calendar events. In this paper, we present a comparative analysis between PRS felines and those portrayed in pictorial narratives dating to the Teotihuacan Classic period (300-900 AD), including the Tetitla, and Atetelco murals, and those on display in the mythological animals' mural. We propose that these PRS and Teotihuacan graphic devices represent sensory signs and are part of the núcleo duro (hard core) of Mesoamerican religious traditions.

Cristian Camilo Sánchez (Universidad Externado de Colombia)

Between “Rock Art Landscape” and Lindosa Panels: Archaeological Analysis of the Construction of the “Rock Art Landscape” of Serranía La Lindosa and the Spatial Distribution of the Panels of Cerro Azul and Nuevo Tolima (Regular Paper)

The Serranía La Lindosa is one of the most representative archaeological sites of rock art in Colombia, standing out as well in the international context, composed by a diverse and enormous repertoire of motifs making it one of the densest “canvases” of rock art built over 12,000 years ago. The site is located in a transitional zone between the Amazon rainforest and the Orinoco region, within the department of Guaviare. Understanding the implications of developing such unique rock art in this distinctive biogeographical landscape can give us important data in the archaeological study of the northwest Colombian Amazon and its indigenous settlers. The following research focuses on analyzing the relationship between the qualitative/quantitative elements that make up the “rock art landscape” of the Serranía La Lindosa and the spatial distribution of the panels from the sites of Cerro Azul and Nuevo Tolima. Using a “landscape archaeology” approach, and the community perceptions of the inhabitants of the area, this paper presents the results of the panels documentation of Cerro Azul and Nuevo Tolima and the spatial analysis developed, identifying different patterns between the geographical data of the sites, their visual aspects, and the pictographs characteristics.

Karen Steelman (Shumla Archaeological Research and Education Center)

The Hearthstone Project: Radiocarbon Dates for Pecos River Style Pictographs (Report)

The Shumla Archaeological Chemistry Laboratory has employed a novel approach to overcome challenges associated with dating ancient rock paintings. Using two independent methods, we have obtained reliable ages for many rock art provinces around the world. The first method employs plasma oxidation to isolate organic carbon directly from the paint layer for accelerator mass spectrometry C-14 measurement. The second method treats mineral accretion layers with phosphoric acid to isolate calcium oxalate for plasma oxidation cleaning, combustion, and C-14 measurement to obtain minimum and maximum ages for the paintings. We will provide examples of this methodology from research at multiple pictograph sites in southwest Texas, with a specific focus on new field work at Eagle Cave. Preliminary results demonstrate that Pecos River Style painting persisted for thousands of years during the Middle and Late Archaic Periods (5500 to 1300 cal BP). With accurate and reliable dating methods, rock paintings around the world can now be studied alongside excavated cultural deposits to provide a more complete understanding of past cultures.

Anne Stoll and George Stoll (Independent Researchers)

It’s About the Trees: A Unique Marker of Ritual Narrative in the Rock Imagery at Serra da Capivara National Park, Piauí State, Brazil (Report)

In the stark, isolated, *caatinga* landscape of Serra da Capivara National Park, Brazil, is found arguably the greatest concentration of rock imagery in the Americas. In over 14,000 recorded painted sites, those panels that depict a tree or branch held aloft and surrounded by dynamic figures suggest a powerful ritual that animated the lives of the Park’s ancient inhabitants. Why did people venture to this remote place so long ago, why did they stay and paint so much on the walls there, and where did they go when they left thousands of years ago? Over 50 years of archaeological study by FUMDHAM has established a series of signposts that lean toward answers. Rock imagery is often thought to indicate ritual practice; these tree-human interactions are strikingly formulaic and appear to be found only within the Park boundaries.

Linea Sundstrom (Independent Researcher)

A Girl Can Dream: Recognizing Women’s Vision Quest Sites in the Great Plains (Regular Paper)

The Great Plains region contains numerous rock art sites with abraded grooves and cupules, vision-related imagery, and representations of women in postures of prayer. These sites likely were modified and used by women seeking visions or more general supernatural assistance. Artifact assemblages from several such sites tend to confirm their production and use as women’s places of prayer. Rock art at such sites can be best understood in light of ethnographic accounts of women seeking and receiving visions and accounts of girls’ puberty rituals. The pictorial content of the rock art, besides images of vulvas and ungulate tracks, may illustrate specific spirit-helpers related to women’s concerns, such as bears and bison.

Ashleigh Thompson and Shannon Cowell (Archaeology Southwest)

Save History: A Campaign to End Archaeological Resource Crime (Report)

Arizona Site Stewards (AZSS) is a corps of the Arizona State Parks volunteers, who systematically monitor 2,400 sites located on state and federal lands in Arizona. According to AZSS data, at least 2,157 looting and vandalism incidents occurred in Arizona from January 2009–July 2021. Because the AZSS monitors only a small percentage of Arizona heritage sites, the data underrepresents the extent and severity of looting and vandalism in the state. In order to address these crimes, SaveHistory.org was created under the Bureau of Indian Affairs and Archaeology Southwest Archaeological Resources Protection Act Cooperative Ecosystems Study Unit as an outreach campaign that brings together archaeologists, Tribal Historic Preservation Officers (THPOs), land managers, and law enforcement to bring looters and vandals to justice and return artifacts to their rightful owners. Save History raises awareness of the educational, spiritual, and scientific importance of archaeological sites and cultural landscapes and also provides avenues for the public to report looting and vandalism. In this presentation report, we will discuss data about these crimes, as well share resources Save History can provide to THPOs, land managers, and others who are interested in stopping looting and vandalism.

Robin Gay Wakeland (Independent Researcher)

Northern Rio Grande, U.S.A., Archaic Petroglyphs: Views from the Ridgetops (Regular Paper)

The Archaic era in northern New Mexico, U.S.A., dates from 6,000 B.C.E. – 400 C.E. This overlaps somewhat with Basketmaker, 1-700 C.E. Indeed, some archaeological sites contain both. Data is based on hearths, surface lithic scatters, and excavations, of which some sites are found buried. Cultural context includes trade in obsidian, propensity and significance of ridgetop locations, heirloom Clovis type points, hunter-gatherer economy, and seasonal migration to higher elevations to facilitate hunting large game. The preceramic tradition in this geography is defined initially by Renaud in 1942 and 1947 and extends into southern Colorado. Within this setting, petroglyphs are also attributed to Archaic based on patina, and share iconography. Images from Renaud, the Bureau of Land Management Taos Field Office, New Mexico Archaeological Records Management Section, and the author illustrate this style. Heavy patina, used to determine age, obscures designs, which remain via pecked lines. Designs encompass a series of dots, a ladder, an undulating curving line, and a rayed circle. These petroglyphs provide depth and visual perspective to contemporary understanding of this preagricultural human occupation in the Southwest.

Mark Willis (Sacred Sites Research and Flinders University)

Stable Confusion: Using Artificial Intelligence to Help Understand Rock Art (Regular Paper)

Recently, Artificial Intelligence (AI) and Neural Radiance Fields (NeRF) have made news with their abilities to create stunningly artistic images and generate complex writing from seemingly nothing more than short text-based prompts. These technologies are now available to people without powerful computers or technical backgrounds. How might these tools be used to understand and document rock art? Can non-human intelligence see patterns in styles that humans cannot, or might it independently verify characteristics of styles? This paper will provide a broad overview of the potential uses of these tools through the training of an AI to recognize and recreate different styles of rock art. Moral and ethical considerations of these technologies will be discussed.

Thank you!

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Notes

COMING SOON!



**American Indian Rock Art
Volume 49**

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American Indian Rock Art,
Volume 49,
is at the printer and will be
delivered soon to those who
were active ARARA members
during 2022.

For recent members,
the new volume will be
available for a special
Member's discount price
from our distributor,
Sunbelt Publications
in Chula Vista, California.

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