



Pictures From The Past



NEWSLETTER OF THE
COLORADO ROCK ART ASSOCIATION (CRAA)
A Chapter of the Colorado Archaeological Society

<http://coloradorockart.org/>

October 2019

Volume 10, Issue 7

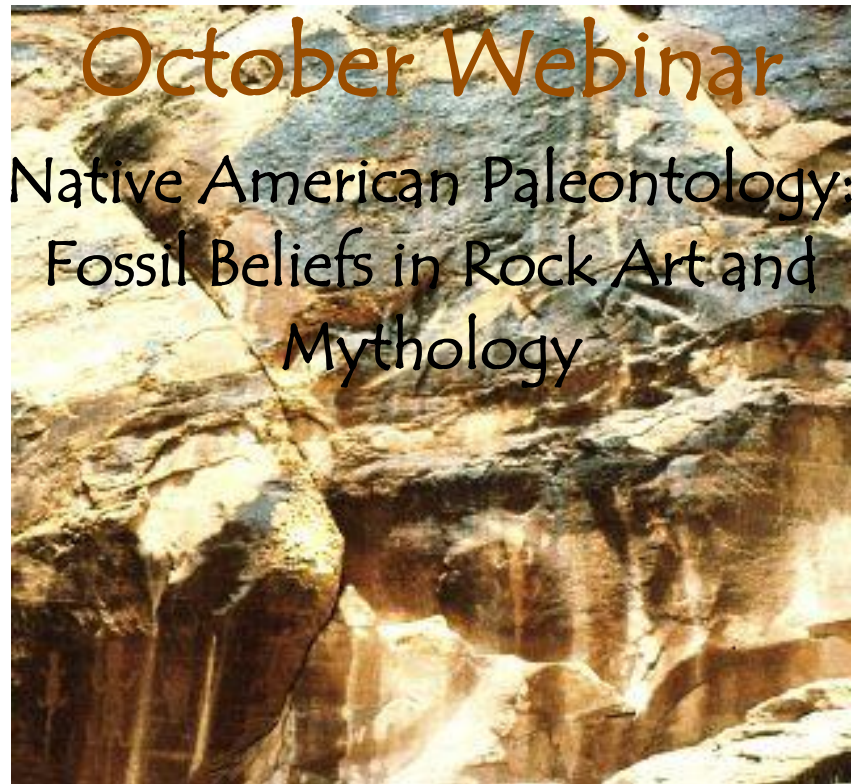
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Zoom link

<http://zoom.us/j/6136944443>

Need webinar help?
see page 3



October Webinar: Native American Paleontology: Fossil Beliefs in Rock Art and Mythology

Photo at right: Giant lizard petroglyphs, Cub Creek, Dinosaur National Monument, UT. Photo courtesy of Peter Faris. Notice petroglyphs across bottom of frame include four more reptiles.

Visit Peter's <https://rockartblog.blogspot.com/> website to see more.

Date & Time: Thursday, October 24, 6:55 – 8:00 pm MST

Location: Click on <http://zoom.us/j/6136944443> any time after 6:45 pm. Program will start at 7 pm.

Presenter: Peter Faris

Description: When American scientists and naturalists began exploring and cataloging the American West in the late 1800s, among their discoveries were fossilized remains of extinct creatures relegated to the specialized field of study of the Anglo scien-

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2019-20 Colorado Rock Art Chapter Officers and Board

President	Teresa Weedin	Membership	Keith Fessenden
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		Education	Betsy Weitkamp

To contact any of the above, email: coloradorockartassociation@yahoo.com

Notes from the CRAA Board compiled by Lucy Burris

- State CAS Annual Meeting will be October 11-13 in Pueblo. See Agenda on page 13.

Upcoming Conferences, Meetings, and Events compiled by Lucy Burris

On-going

- Through October 20—**University of Colorado Museum of Natural History, Boulder.** Exhibit: Poveka: Master Potter Maria Martinez Boulder. https://calendar.colorado.edu/event/new_exhibit_opening_february_13#.XWa1NeNKhhE
- Through December 15—**University of Colorado, Jerry Crail Johnson Earth Sciences and Map Library, Boulder.** Print exhibit "Protect This Land: Making Change Through Visualization". https://calendar.colorado.edu/event/protect_this_land_making_change_through_visualization
- **Michener Library, 1stFloor Gallery, University of Northern Colorado, Greeley.** Exhibit of Pueblo pottery from the Department of Anthropology collection. <https://www.unco.edu/hss/anthropology/>

October

- October 1, 6pm—**Archaeology Southwest, Archaeology Café, Tuscon, AZ and Livestream.** Dr. Aaron Wright presents "Why You Should Experience the Painted Rock Petroglyph Site". <https://www.archaeologysouthwest.org/event/why-you-should-experience-the-painted-rock-petroglyph-site/>
- October 3-5—**Rocky Mountain Anthropological Conference, Logan, UT.** <http://www.rockymtnanthro.org/>
- October 8, 7pm—**Wyoming Archaeological Society, June Frison Chapter, Laramie, WY.** Charles Koenig discusses Eagle Cave, TX archaeology. <https://www.facebook.com/JuneFrisonChapterWAS/>

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Webinar (continued)

(Continued from page 1)

tists known as paleontologists. Native Americans, however, had known of these all along, and had classified them according to their own worldview and historical beliefs. Their learned men who knew the secrets of nature, as well as the secrets of the spirit world, determined the significance of those fossils, and explained their origins in terms appropriate to their cultures. The giant bones, teeth, and tusks, which white men named dinosaur, mammoth, uinkathere, and other prehistoric remains, had long before been classified as Unktehi, Uncegila, Tatanka, and Mishi-Peshu within the traditional belief cycles that defined and explained nature and the world. Knowledge of these wondrous creatures, their locations, and their ways, were passed down from generation to generation in tribal traditions that gave meaning to their fossilized remains, and helped the people understand the world on their own terms. They portrayed these creatures in their works of art, and sometimes left their images pecked and painted on the rocks that held the secrets of their physical remains.

Presenter background: Peter Faris is a 30+ year member of the Colorado Archaeological Society, Founder and former President of the Colorado Rock Art Association, Member of the Arapahoe County Cultural Commission, President of Institute for Archeoesthetics. 2013 recipient of the Ivof Hagar Award for outstanding service to the Colorado Archaeological Society, and a 2013 Colorado Rock Art Association Chapter Achievement Award. Member of Archaeology and Historic Preservation Committee and also Programs Committee of History Colorado. Arapahoe County Cultural Council. Peter is currently on the board of the Colorado Rock Art Association.

How do you join our web lecture?

Join from your PC, Mac, Linux, iOS or Android, includes tablets and smart phones.

Starting at 6:45 pm on Thursday, October 24 you can join our web lecture using the information below.

1. Go to zoom.us and click "Join a Meeting" at top right and then enter our meeting number 613-694-4443. Follow the zoom application instructions. If you have used zoom before you will likely go straight to the lecture page. If you have problems, please call the help line below and a monitor will help you get online.
2. Click on this link <http://zoom.us/j/6136944443> Follow the zoom application instructions. If you have used zoom before you will likely go straight to the lecture page. If you have problems, please email the help line below and Joel Hurrence will help you get online.

Help line. If you do have issues email coloradorockartassociation@yahoo.com with a description of the issue you are experiencing. We will have someone monitoring the email account from 6:45 until 7:15.

Missed a past webinar?

Some of our past webinars are available to CRAA members in the "Members" section of the Colorado Rock Art Association web site.

Peter Faris Rock Art Blog

Peter posted the following blogs on July 13 and July 20, 2019 at <https://rockartblog.blogspot.com/>
Reprinted with permission.

ROCK ART AND ACOUSTICS: INTENTIONAL, ACCIDENTAL, OR IRRELEVANT? Part 1

There is a great deal of interest currently in archaeoacoustics, the study and analysis of how sound interacted with rock art and other ritual practices of ancient populations. Indeed, a rock art conference nowadays can hardly be held without at least one paper on Archaeoacoustics being presented. A PBS documentary series, *How We Got To Now*, hosted by Steven Johnson, devoted its sixth episode to Sound. At the beginnings of the episode Igor Reznikoff was introduced inside one of the European painted caves - Arcy Sur Cure, in northern France. Reznikoff, who is a professor at the Philosophy Department of the University of Paris at Nanterre, eloquently rhapsodized about the role of sound and echoes in cave art and ritual.

"In a prehistoric cave, one of the most impressive experiences is to discover the cave, walking in complete or almost complete darkness, and all while making sounds (preferably vocal ones) and to listen to the answer of the cave. In order to figure out where the sounds come from - from far away or from nearby - and whether there is somewhere a strong resonance or not: all this in order to ascertain the direction in which one



Top to bottom: Two Mammoths, Rouffignac, France. Marking a spot of increased resonance according to Reznikoff (2002:48). Photo: bradshawfoundation.com. Three rhinoceroses, a site of naturally high resonance (Reznikoff 2002:48). Rouffignac cave, France. Photo: donsmaps.com. Salmon, an area of increased resonance. Salle des Vagues, Arcy-sur-Cure cave, Burgundy, France. Photo: M. Girard.

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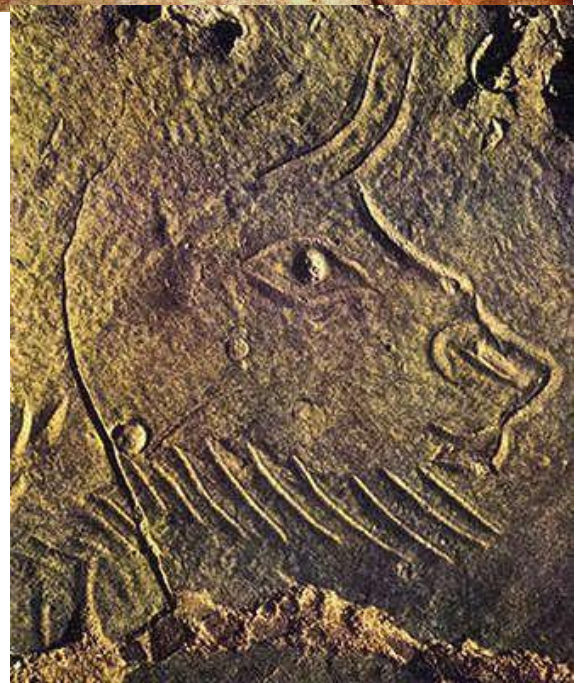
Peter Faris Rock Art Blog (cont.)

may proceed further on. Because our vision is limited by darkness, resonance is the only way to know how long or deep the space ahead is. This represents one use of the voice and of the hearing as a sonar device, and there is no doubt that Palaeolithic tribes who visited and decorated the caves proceeded in this way;

indeed, in irregular shaped galleries or tunnels, neither oil lamps nor even torches light further than a few meters. This sonar method works: in many cases, proceeding into the direction of the strongest answer of the cave will lead to the locations of paintings. This way of moving around in darkness demonstrates the main importance of sound in discovering space and in proceeding through it; to be sure, it reminds one of the first perception of space the child has in the world of the mother's womb." (Reznikoff 2005:Section 2.5)

This is one of his conclusions, that sound (echoes) was used in navigating caves. He talks about the human body as a sonar device, emitting and receiving sound and analyzing the information contained in the returning signal. He also goes into sound as an integral part of ritual; music, vocalization, imitating animal calls, etc. His analysis is not rigorously scientific. The sound production in his studies is vocal and his instrument for receiving the sound is aural, his ear. This is, of course, the way it would have been with our ancestors too.

"The method consists in studying, or rather listening to, the resonance of sounds in terms of its intensity and duration at different points along the cave walls. In this way, the places with the greatest resonance can be located, or, more generally, the places where the quality of the resonance changes significantly. A map of resonance in the cave galleries can thus be drawn up. In acoustical terms, the changes correspond to the alternation along the cave wall of nodes and antinodes for those frequencies that are characteristic of particular parts of the cave. The matter can, however, be rather complex, because the pitches that make different parts of the cave resound must be identified at the same time. In different parts of the cave, different and, possibly, many pitches (even if only the basic sound is taken into account) can be peculiar to its resonance since its form can be very complex; we are thus faced with two variables: location and pitch." (1995:503)



Top to bottom: The 'Diamond incusted' mammoth in the most resonant location of the main cave (Reznikoff 2002). Arcy-sur-Cure (Burgundy, France). Photograph M. Girard). Engraved bison in the Niaux Cave, Ariège, France, here the resonance lasts for 5 seconds (Reznikoff 2001:49). Photograph: Internet, public domain.

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Peter Faris Rock Art Blog (cont.)

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Reznikoff comes to three main conclusions - what he calls Principles.

1. The density of paintings in a location is proportional to the intensity of the resonance in this location. He qualifies this by admitting that "it is unreasonable to expect all the locations with good resonance to be painted, there are in general too many and some are unsuitable or inaccessible." (Also some painted sites have poor acoustic properties. What does that say about his theory?)
2. Most ideal resonant locations are adorned with paintings or signs. (I am really skeptical here, I know of all sorts of good echo sites with no rock art.)
3. Certain signs are accounted for only in relation to sound. (Possibly true, but since he does not identify those signs we really cannot judge) (Reznikoff 2008:4140)

So, is Reznikoff right? Well, I can see some logic in his argument that sound would be helpful in navigating caves. But would his results be replicable by another researcher using a different voice and ears, or would personal differences lead to differing results? In other words can his experimental results be replicated by another experimenter (the primary test for scientific validity)? I think not.

I must admit I enjoy reading his papers, they are not dry scientific discourses. He is eloquent, even poetic, in describing his beliefs - but is he correct in his assumptions? I will even agree with him to a certain extent. I do have this caveat, however. I have written previously about my belief that the question of acoustics is overdone in current rock art studies. The fact that rock art sites often produce impressive echoes is assumed to be causative, that the rock art is there because of the echo. As I have written elsewhere, desirable rock panels for rock art and for causing echoes are coincident, but we have no proof that they are related. So, Reznikoff's method of vocalizing and then listing his impressions of what he hears is certainly not scientific, his results must be predominately subjective, but that does not invalidate his efforts, and he surely must be having a lot of fun.

NOTE: Some images in this posting were retrieved from the internet with a search for public domain photographs. If any of these images are not intended to be public domain, I apologize, and will happily provide the picture credits if the owner will contact me with them. For further information on these reports you should read the originals listed below.

REFERENCES:

Reznikoff, Igor

1995 On the Sound Dimension of Prehistoric Painted Caves and Rocks, p. 541-57, from *Musical Signification: Essays in the Semiotic Theory and Analysis of Music*, edited by Eero Tarasti, De Gruyter Mouton, Berlin and New York.

2002 Prehistoric Painting, Sound and Rocks, from *Studien zur Musikarchäologie III, The Archaeology of Sound: Origin and Organization*, Deutsches Archäologisches Institut, Istanbul, Verlag Marie Leidorf GmbH, Rahden, Westf.

2005 On Primitive Elements of Musical Meaning, *Journal of Music and Meaning*, vol. 3, Fall 2004/Winter 2005, Section 2, <http://www.musicandmeaning.net/issues/showArticle.php?artID=3.2>

2008 Sound Resonance in Prehistoric Times: A Study of Palaeolithic Painted Caves and Rocks, p. 4137-4141, www.acoustics08-paris.org

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Peter Faris Rock Art Blog (cont.)

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Part 2

Last week (July 10, 2019) I reported on Igor Reznikoff's researches into the subject of acoustics of rock art sites. This week I am adding conclusions of a couple of other authors and other evidence.

In the acoustics of a cliff, cave, or rock shelter, there are essentially two types of sound that are considered: naturally occurring sounds such as water, wind, and animal noises, etc., and human-caused sounds (whether vocal or mechanical). Vocal human sounds would include speaking, singing, whistling, or imitating animal calls, etc.

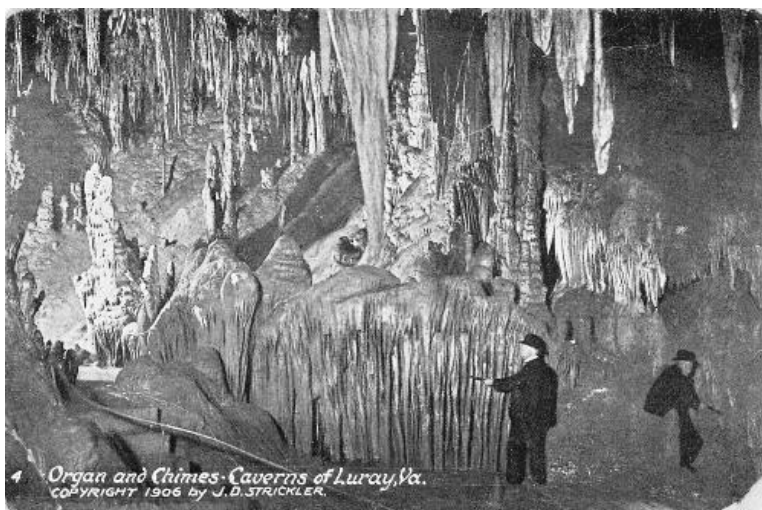
Mechanical human caused sounds include drums, flutes, whistles, bull-roarers, etc. - and lithophones. Lithophones are a human-caused sound as well but are often considered separately as a special type of musical instrument. A lithophone is a percussion instrument consisting of certain dense rocks that ring with musical notes when struck. Stalactites and stalagmite formations in many caves will do this as well as separate stones and boulders.

Concerning human-caused sounds Fazenda (et.al.) writes that "It is likely that both speech and music were part of the cultures that used the caves, given that speech evolved earlier and examples of musical instruments in the human cultures under study here have been reported in archaeological studies." (p. 1337)

While it is undeniable that some echoes or resonance effects will be produced in virtually any cave or rock shelter, or even open cliff rock art site it has to be remembered that although geologic time seems unchanging there are continuous changes and modifications to the shapes and surfaces of these sites.

"At the same time it must be recognized that the internal morphology and structure of the caves has undergone processes of modification (both human and natural) that inevitably affect their acoustics. Some areas of these caves may hence exhibit acoustic responses that have changed since prehistory. The most significant naturally occurring change to the architecture of the caves came about through the closing or sealing of their original entrances by rock-falls or by sediment accumulation." (Fazenda et al. 2017:1334-5)

This means that the acoustic effects being detected today may be different than any effects intended when the rock art was created, and basing scientific assumptions on conditions that may have changed seems to make little sense. Also, rock art sites can have wildly different acoustic properties; from amplified resonance, to diminished or muddled resonance.



Lithophones, Organ and Chimes, Caverns of Luray, VA, 1906 post-card.

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Upcoming Conferences, Meetings, and Events (cont.)

(Continued from page 2)

- October 8, 7pm—**Taos Archaeological Society, Taos, NM** . Monthly meeting speaker: Mary Weakhee presents "Comanche Horses and Petroglyphs in Northern New Mexico". <http://www.taosarch.org/event-3513588?CalendarViewType=1&SelectedDate=10/17/2019>
- October 9, 5-7 pm —**History Colorado Center, Denver**. Members – only Open house. <https://www.historycolorado.org/event/members-only-open-house/2019/10/09>
- October 9, 6:30pm—**Colorado Archaeological Society, Northern Colorado Chapter, Fort Collins**. Monthly Meeting. <http://casncc.org/events>
- October 10 6-9pm—**Denver Museum on Nature and Science, Denver**. Indigenous Film Festival presents N. Scott Momady "Words From a Bear". <https://www.dmns.org/visit/events-and-activities//?r=newredirect>
- October 10, 7pm—**Colorado Archaeological Society, Indian Peaks Chapter, Boulder**. Dr. Scott Ortman presents "K'uuyemugeh—Archaeology and History of a Tewa Community in New Mexico". <http://www.indianpeaksarchaeology.org/ipcas-lectures/upcoming-lectures>
- October 10-12—**Midwest Archaeological Conference, Mankato, MN**. <https://www.midwestarchaeology.org/>
- October 10-13—**Old Spanish Trail Conference, Cedar City, UT**. <https://history.utah.gov/event/old-spanish-trail-association-conference/>
- October 11-12—**El Paso Museum of Archaeology, 21st Biennial Jornada Mogollon Conference, El Paso, TX**. <https://archaeology.elpasotexas.gov/events/2019/10/11/21st-biennial-jornada-mogollon-archaeology-conference>
- October 11-13—**Colorado Archaeological Society Annual Meeting, Pueblo Community College, Pueblo**. <http://www.puebloarchaeology.org/2019-cas-annual-convention-1>. See agenda on page 13.
- October 11-13—**Texas Archaeological Society 90th Annual Meeting, Amarillo, TX**. <https://www.txarch.org/tas-annual-meeting>
- October 12, 4 pm—**Lone Tree Hub** and Oct 13 2pm—**Denver Central Library (and live streamed) – Tesoro Historic Lecture Series**, Dr. Pekka Hamalainen presents "Lakota America: A New History of Indigenous Power". <https://www.tesoroculturalcenter.org/historic-lecture-series/>
- October 14, 7pm—**Colorado Archaeological Society, Denver Chapter**. Monthly meeting. <http://cas-denver.org/activities/meetings>
- October 14-17—**Great Basin Anthropological Association Conference, Las Vegas, NV**. <https://greatbasinanthropologicalassociation.org/>
- October 15, 7pm—**Colorado Archaeological Society, Pikes Peak Chapter, Colorado Springs**. Monthly meeting. <https://coloradospringsarchaeology.org/programs-2>
- October 16-19—**77th Plains Anthropological Conference, Bloomington, IN**. <https://plainsanthropologicalsociety.org/>
- October 17, 12-1pm—**Mesa County Libraries, Grand Junction**. John Greg Gnesios presents "Our National parks: America's Best Idea—a Concise and Insider History of the National Park Service". <https://mesacountylibraries.libcal.com/event/5834229>
- October 18-19, 11am-5pm—**Arizona Archaeological and Historical Society, Tucson, AZ**. Used book sale. <https://www.az-arch-and-hist.org/event/used-book-sale-4/>

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Upcoming Conferences, Meetings, and Events (cont.)

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- October 19, 11am-1pm—**Ute Indian Museum, Montrose**. International Archaeology Day. <https://www.historycolorado.org/event/international-archaeology-day-2019-ute-indian-museum/2019/10/19>
- October 19, 1:30pm—**Nebraska Archaeological Society Annual Meeting, Lincoln, NE**. <https://sites.google.com/site/webnas/>
- October 19—**Oklahoma Historical Society, Archaeology Day, Spiro, OK**. <http://www.okhistory.org/calendar/event/archaeology-day-3/>
- October 21, 1-2pm & 7-8pm—**History Colorado, Denver**. Michael Vincent presents "140 Years of History Colorado." <https://www.historycolorado.org/event/140-years-history-colorado/2019/10/21>
- October 22, 11:30am-12pm—**Tread of Pioneers Museum, Steamboat Springs**. Join the Curator for a behind the scenes tour. <https://www.historycolorado.org/event/tread-pioneers-museums-behind-scenes-collections-tours/2019/10/22>

November and December

- November 9, 9am-5pm—**Colorado Curation Alliance Forum, Colorado State University, Fort Collins**. Registration required by October 18. https://www.historycolorado.org/sites/default/files/media/documents/2019/2019_poster.pdf
- November 14, 7pm—**Colorado Archaeological Society, Indian Peaks Chapter, Boulder**. Kaitlyn Davis presents "Pueblo Agricultural Adaptations to Socioeconomic Changes in New Mexico". <http://www.indianpeaksarchaeology.org/ipcas-lectures/upcoming-lectures>
- November 16, 2pm—**Arizona State Museum, Tucson, AZ**. John Fryar and Garry Cantley present "Looting and the Law: Preventing, Detection, and Investigating Archaeological Resource Crime". <https://statemuseum.arizona.edu/events/looting-and-law-preventing-detecting-and-investigating-archaeological-resource-crime>
- November 18, 7:30-9 pm—**Arizona Archaeological and Historical Society, Tucson, AZ**. David Purcell presents "Seasons in the Sun: Experimental Time-Lapse Photographic Documentation of Archaeoastronomic Sites". <https://www.az-arch-and-hist.org/event/david-purcell-title-to-be-announced/>
- November 19, 6-7pm—**Archaeology Southwest, Tucson, AZ**. Jonathan Bailey presents a special pre-release book discussion of his upcoming book "Rock Art: A Vision of a Vanishing Cultural Landscape" and unpublished looks at Molen Reef Rock Art. <https://www.archaeologysouthwest.org/event/author-discussion-of-rock-art-a-vision-of-a-vanishing-cultural-landscape/>
- November 20-24—**American Anthropological Association and Canadian Anthropological Society Conference, Vancouver, BC**. <https://casca-aaa-2019.com/>
- November 17, 6pm—**Tesoro Historic Lecture Series, Morriosn, CO**. Drs. Steven Lee and Bethany Williams present "The Night the Stars Fell". Dinner lecture, reservations required. <https://www.tesoroculturalcenter.org/historic-lecture-series/>
- December 4, 5:30-8pm—**Cherokee Ranch & Castle, Sedalia, CO**. John Fielder reception and book signing "380 Miles East to West: Celebrating 40 Years of Colorado Photography". <https://cherokeeranch.org/education.html>. Reservations required.

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Upcoming Conferences, Meetings, and Events (cont.)

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Coming in 2020

- January 8-11—**Society for Historical Archaeology Conference, Boston, MA.** <https://sha.org/conferences/>
- March 5-8—**Colorado Council of Professional Archaeologists Annual Meeting and Conference, Pueblo.** <http://coloradoarchaeologists.org/meetings-events/annual-meeting/>
- April 16-19—**Montana Archaeological Society 62nd Annual Meeting, Polson, MT.** <http://mtarchaeologicalsociety.org/mas-meeting/>
- April 22-24—**Oklahoma History Conference, Hulbert, OK.** <http://www.okhistory.org/calendar/event/conference/2020-04-22/>
- April 22-26—**Society for American Archaeology, 85th Annual Meeting, Austin, TX.** <https://www.saa.org/annual-meeting>
- May 8-10—**Archaeological Society of New Mexico Annual Meeting, Taos, NM.** <https://taosarch.wildapricot.org/ASN2020>
- October 14-17—**37th Great Basin Anthropological Conference, Las Vegas, NV.** <https://greatbasinanthropologicalassociation.org/>
- November 4-7—**78th Plains Anthropological Conference, Boulder, CO.** <https://plainsanthropologicalsociety.org/annual-meeting/future>

Information is accurate at the time of preparation but check the listed web sites for specific details and any changes. Check the listed web sites for any fees, membership, and advance registration requirements. Listing does not imply endorsement by the Colorado Rock Art Association.

PAAC Class Schedule compiled by Lucy Burris

There are several Program for Avocational Archaeology (PAAC) classes offered this fall around the state through the Office of the State Archaeologist. Classes are hosted by local chapters of the Colorado Archaeological Society. Get registration information and details at <https://www.historycolorado.org/paac-event-schedule>

10/22—11/19, 12/3 (Tuesdays) - **Rock Art Studies**, Northern Colorado Chapter, Fort Collins (Colorado State University).

10/22—10/28—**Rock Art Studies**, Hitasinom Chapter, Cortez/Dolores

10/24—12/5 (Thursdays except Thanksgiving) - **Archaeological Laboratory Techniques**, Denver Chapter (History Colorado Center)

11/1—11/3—**Archaeological Dating Methods**, Pikes Peak Chapter, Colorado Springs (University of Colorado)

11/22—11/24—**Colorado Archaeology**, San Juan Basin Archaeological Society, Durango (Fort Lewis College)

Peter Faris Rock Art Blog (cont.)

(Continued from page 7)

I have even been at a rock art site that acted as a whisper channel wherein a sound made at one point cannot be heard just a few feet away, but is legible again farther down the rock face. This was a cliff face with a slight overhang in a narrow canyon in Texas. The cliff face was pretty much evenly covered with small, delicate red-painted figures, just as many occurring in the null area where the sound was not heard as in the areas of sound receptivity. If acoustic properties governed the placement of rock art I would expect the null area to have many fewer red-painted



Painted Canyon, Val Verde County, TX, photograph Peter Faris, March 2004.

figures than the areas of intensity. This site, at least, seems to go against the rock art/echoes assumptions.

In their rigorous and excellent 2017 study of acoustics in rock art sites Fazenda and his ten co-authors concluded: "Blessner and Salter (2009:74) observe that, "cave wall images are tangible, enduring manifestations of early humans," and that in contrast sound "has no enduring manifestation, nor of course could it have for any pre-technical peoples," meaning that as a result, "available data are too sparse to draw strong conclusions." In our work a statistical association has been established between acoustic response and the positions of Palaeolithic visual motifs found in these caves. Our primary conclusion is that there is statistical, although weak, evidence, for an association between acoustic responses measured within these caves and the placement of motifs. We found a statistical association between the position of motifs, particularly dots and lines, and places with low frequency resonances and moderate reverberation. Importantly, we must reiterate that the statistically significant association does not necessarily indicate a causal relationship between motif placement and acoustic response. In other words, our evidence does not suggest that the positioning of motifs can be explained simply through relationships with acoustics, and we are not suggesting that motif positioning was based solely on an appreciation of sound properties. Indeed, we also found that motifs are statistically less likely to be found further into the caves, away from its original entrance, and this result further illustrates the complex relationship between early human behavior and features of these caves." (Fazenda:1347)

As an example of the above, probably the most remarkable correspondence of echo and rock art I have personally experienced is the Great Gallery in Horseshoe Canyon, Canyonlands, Utah. The cliff wall there seems ideal for rock art and it has inspired a considerable amount of great art there on it. It also casts what I remember as a strong echo, but even while standing there in front of it and experiencing it I got no sense that the art and the echo had to be somehow connected by other than coincidence.

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Peter Faris Rock Art Blog (cont.)

(Continued from page 11)

I know that I do not have the last word on a subject, and I feel that I always have to leave room for error in my assumptions, so I will say here that it is possible that all the claims made for sites that produce strong echoes were chosen for rock art as well because of those echoes. But I know of no way of proving that and, until we do, many of the current claims are unsupported and overblown. The same rock face that is desirable for rock art purposes, probably also is desirable for echoes or other acoustic effects, but that does not mean that the art and the sounds are interrelated in any way.



Great Gallery, Horseshoe Canyon, Canyonlands, Wayne County, UT, photograph Don I. Campbell, May 1984.

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REFERENCES:

Blessner, B., and Salter L., 2009 Spaces Speak, Are You Listening?: Experiencing Aural Architecture, MIT Press, Cambridge, MA.
Fazenda, Bruno, et al., 2017 Cave Acoustics in Prehistory: Exploring the Association of Paleolithic Visual Motifs and Acoustic Response, The Journal of the Acoustical Society of America, 142, (1332-49), <https://doi.org/10.1121/1.4998721>

Volunteer Opportunities compiled by Lucy Burris

10/19/2019—Utah State History, International Archaeology Day—Public Lands Cleanup at a Utah Rock Art Site. <https://history.utah.gov/event/international-archaeology-day-public-lands-clean-up/> Registration required.

Through 12/31/2109—Volunteer Map editor with The National Map Corps updating digital US Topographic Maps <https://www.volunteer.gov/results.cfm?ID=13564>

CAS Annual Meeting Agenda



CAS ANNUAL MEETING 2019

October 11-13, Pueblo, Colorado

Host Chapter: Pueblo Archaeological and Historical Society



DATE & TIME	EVENT	COST	LOCATION
Friday, October 11 10:00 – 12:00	Project Archaeology Workshop Registration Required	FREE	Pueblo Heritage Museum 201 W. B Street, Pueblo, CO 81003
Friday, October 11 10:00 AM – 4:00 PM	Flight, Mind & Steel: Pueblo Museum Tour Drive your own vehicle to three museums – fee covers admissions, docent led tour AND box lunch Arrive early and experience Pueblo firsthand! Registration Required	\$25	<ul style="list-style-type: none"> Weisbrod Aircraft Museum Colorado Mental Health Institute of Pueblo Museum Steelworks Museum and Archives Driving map will be provided with registration
Friday, October 11 5:00 PM – 8:30 PM	CAS Board Meeting Fee covers dinner and beverages.	\$15	Heritage Room – Pueblo Heritage Museum 201 W. B Street, Pueblo, CO 81003
Friday, October 11 5:00 PM – 8:30 PM	Early Conference Registration Enjoy hors d'oeuvres and beverages AND take advantage of the FREE Pueblo Heritage Museum self-guided tour.	FREE	Pueblo Heritage Museum 201 W. B Street, Pueblo, CO 81003
Saturday, October 12 Registration – 8:00 AM Presentations 9:00 – 4:00 Alice Hamilton Silent Auction – All Day Luncheon Speaker 12 – 1:00 4:00 – 5:00	CAS Annual Meeting Presentations and Posters Luncheon Speaker Sponsorship reduced Box Lunch Membership Meeting	\$15 - \$40 \$5	Pueblo Community College Virtual Tour Directions to Student Center, 806 W Orman
Saturday, October 12 Cash Bar opens at 5:30 PM Dinner @ 6:30 PM Keynote Speaker @ 7:30 PM	Banquet & Keynote Speaker	\$10 - \$35	Pueblo Community College Virtual Tour Directions to Student Center, 809 W Orman
Sunday, October 13	Field Trips	\$0 – \$~20	<ul style="list-style-type: none"> Cramer Archaeological Site Francisco Fort, La Veta Co Tour \$4 @ site Fremont County Geology To Prisons \$5 @ site Picket Wire Canyonlands Tour ~\$20 @ registration Southern Pueblo County Car Tour of Historic Sites
Questions? – Email pahscas19@gmail.com or call Carla Hendrickson 719 583 1633			



See the CAS Annual Meeting website for additional information including registration.

<http://www.puebloarchaeology.org/2019-cas-annual-convention-1>