

**Sacred Sites Research Inc.**  
**2020 Annual Report**  
**Prepared by Lawrence Loendorf**

As with many organizations, the coronavirus made it difficult for Sacred Sites Research, Inc. (SSR) to carry out a full schedule of activities during the year. Nonetheless, we were able to complete several projects while others were postponed.

An example of the latter is a project that was planned to use portable x-ray fluorescence to study the ingredients in the paint at the colorful set of rock paintings in Brownstone Canyon, west of Las Vegas, Nevada. The project was delayed because the Bureau of Land Management was unable to get confirmation from consulting Native American tribes that the project would not have an adverse effect on their traditional use of the site.

Another postponed project sponsored by SSR and by James Keyser was to have Angelo Fossati travel to a site near Glacier Park where he would train students from the University of Montana in recording techniques that he has developed for very faint petroglyphs on flat rock surfaces at the Valcamonica world heritage site in Italy. Fossati was unable to travel, so the project is on hold.

A third project to record and radiocarbon date paintings in a cave in Idaho, sponsored by SSR, was partially completed. Carolynne Merrell did get a crew to the site to complete the recording but Karen Steelman, the dating specialist, was unable to travel so the samples were not taken for dating. Merrell wrote a report on the re-recording of the site with a DStretch study that offers more details on the site. One goal was to examine some paintings that may represent tobacco plants, but because there was so much excavation in the cave, these paintings are now difficult to access.

Successful projects include three that were based in Harlowton, Montana where SSR rented two houses for social distancing, had all meals in outdoor settings, and always worked with masks on. Further, at the time of the projects, Golden Valley County, Montana where the sites are located had only two recorded cases of Covid 19.

One project was to return, for a second season, to the West Ryegate site where we had a crew of eight individuals record additional pictograph and petroglyph panels at the site. The field drawings for most of the panels have now been inked and ready for a report to the landowner.

West Ryegate has a large number of armored horses. Shortly after the Spanish conquistadors rode their horses into North America with steel armor for protection. Native groups copied the protection by making rawhide armor. Mavis Greer, John Greer and James Keyser have written about rock art depictions of horse armor and included some of the examples at West Ryegate. In the SSR recording, we found several new examples of these armored horses.

With the kind help of local resident, Loren Haar, we also gained permission from a ranch owner to record a painted site on Fish Creek, Montana. We learned that the faint painted panels at the

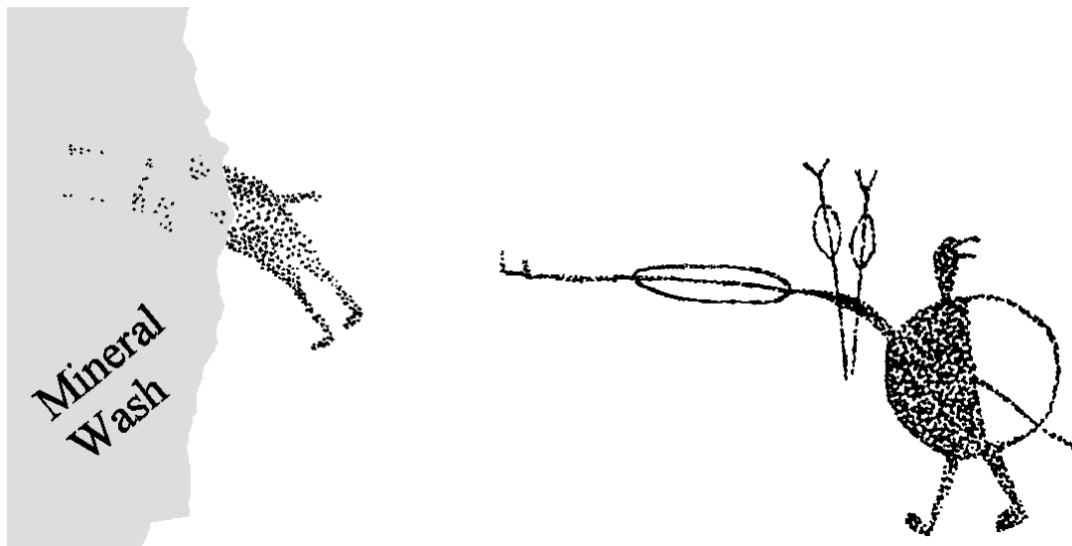
site are excellent candidates for study with DStretch software. Panel drawings from the site are in progress.



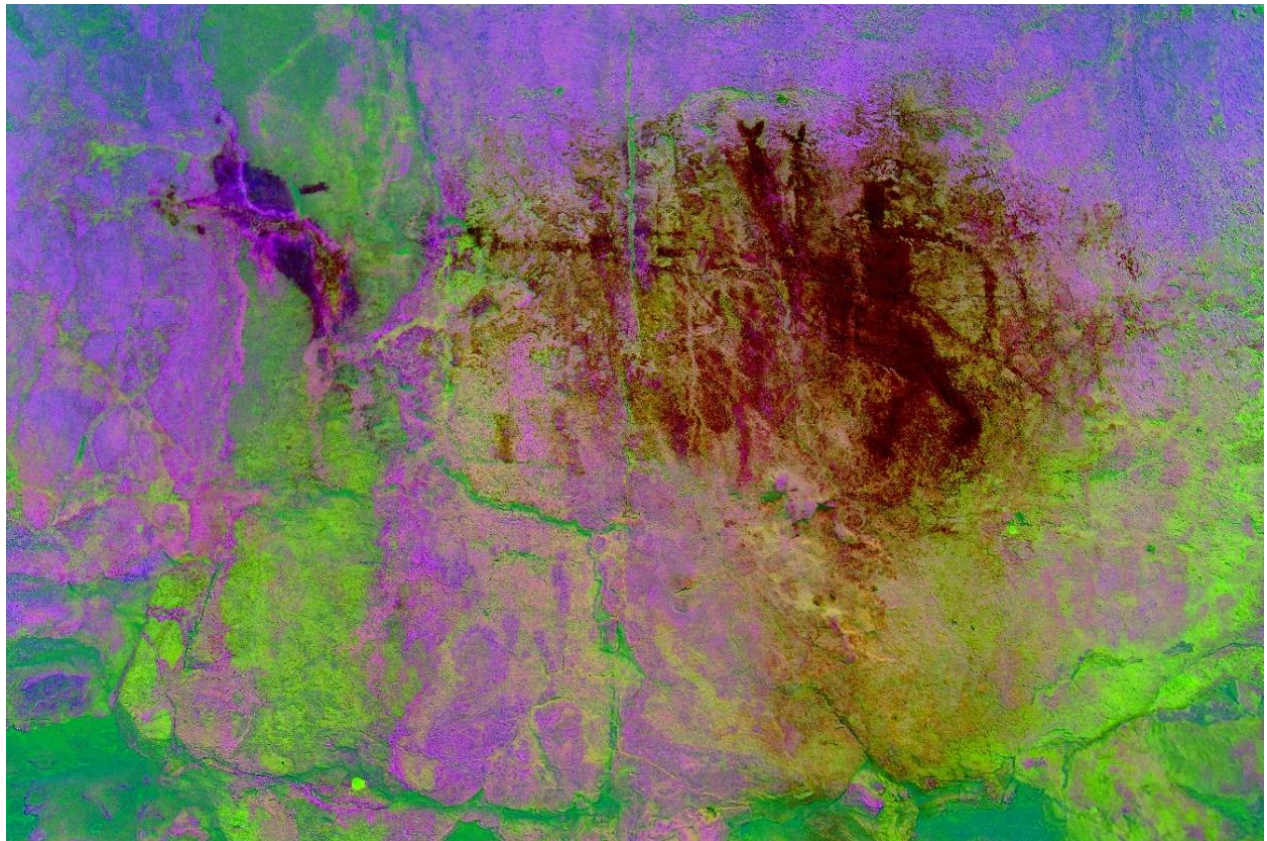
*Armored horse from West Ryegate. The horse's head is seen protruding out from the tent-like rawhide armor and the rider with a shield sticks out of the top. A pedestrian shield warrior appears to be sending arrows into the scene. There is a good chance that the rider on the armored horse is Shoshoni because they were the group that first obtained horses from the Spanish and they are known to have used horse armor. Drawing by Laurie White and Greg White.*

The third project was a one-day reconnaissance visit to the Kibbey Canyon site, near Great Falls, Montana. We were able to establish a relationship with the family that owns the site and hope to record it in the future. The importance of the Kibbey Painted Canyon site is a pedestrian shield warrior that may be using an atlatl. This is significant because researchers have believed that the shield bearing warrior rock art motif had its origins in Mexico and came to Montana sometime after AD 1200. If the Kibbey Canyon figure does have an atlatl, it suggests the figure is older than the bow and arrow in the region or a time prior to AD 500.

The proposed research at the site will include sampling for a C14 date and the processing of that date by Dr. Karen Steelman at the Shumla Plasma Oxidation laboratory in Comstock, Texas. Steelman will join SSR in obtaining a sample. SSR also plans to record other images at the site and the family that owns the site are planning to show us other sites in the region.



*Original drawing of the Kibbey Canyon figure thought to have an atlatl by James Keyser. He thought the pursued figure, hidden by mineral coating, was a deer but the DStretch study suggests it is a human. Of course, Keyser did not have the advantage of DStretch software to study the scene.*



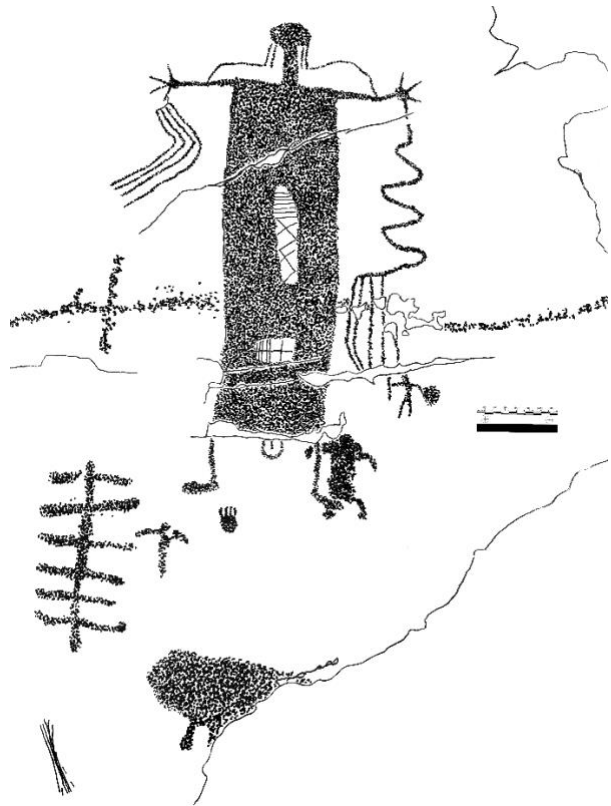
*DStretch (crgb) image of the shield figure and the figure being pursued. The pursued figure is more vertical or upright in its posture than it is shown in previous illustrations of the figure and suspected to be a human. Unfortunately it is not possible to see an actual atlatl. Mark Willis photograph. Jon Harman DStretch.*



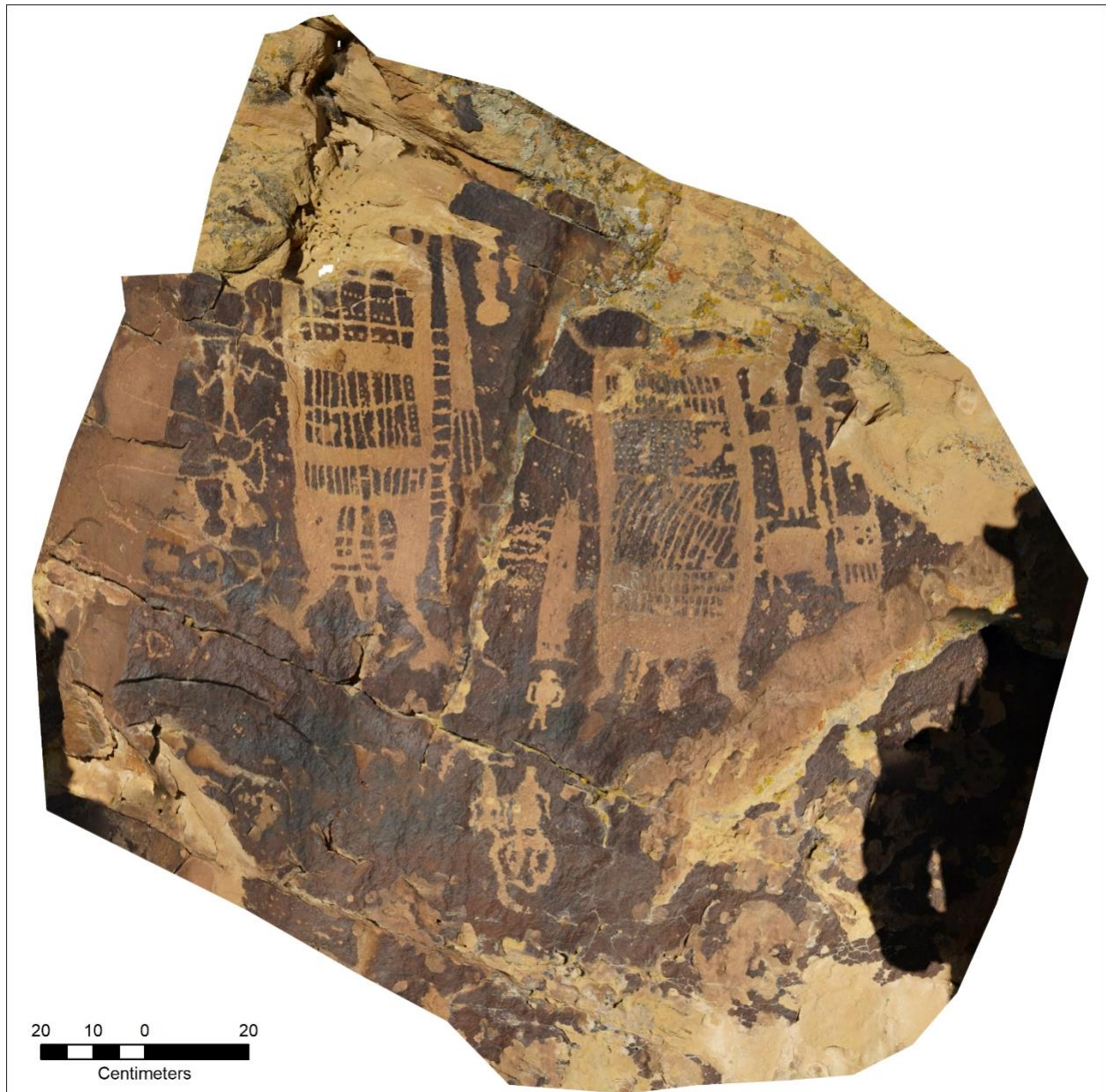
In July, SSR was at the Hole in the Wall site on the Wold Ranch, west of Kaycee, Wyoming to assist with the final recording and preparation for the nomination of the rock art sites on the ranch to the National Register of Historic Places. The project was coordinated from a tent camp with all activities outside.

SSR's largest undertaking in 2020 was to record a major petroglyph site near Manila, Utah. Again, Daggett County, Utah, where the site is located, had only one known Covid 19 case at the time of the recording and we were able to stay in tents or cabins, have meals and all planning outside, wear masks and social distance. A crew of ten people recorded 63 panels of petroglyphs along a cliff face more than a half-mile in length. The overall project will be a major contribution to the understanding of the distribution of petroglyph styles in the intermountain regions of Wyoming and Utah.

During the analysis of the field drawings which consumed many hours to the end of 2020 and into 2021, we have made some amazing findings. SSR is gratified to get a record of the site which is on private land and the owner is strongly supportive of protecting the petroglyphs.



*Mark Willis using a pole with a mounted camera to record a high panel at the Manila site (Left). Drawing made from a field tracing by David Kaiser of one of the large human figures at the Manila site (Right).*



*Mark Willis photograph of one of the major panels at the Manila site. These large figures with interior line designs are impressive. We believe that these large panels were made near the end of the time the site was used to make petroglyphs. There is little evidence the site was used for petroglyphs in the past 500 years. It seems possible that these large figures were recognized as so powerful, the site was avoided.*

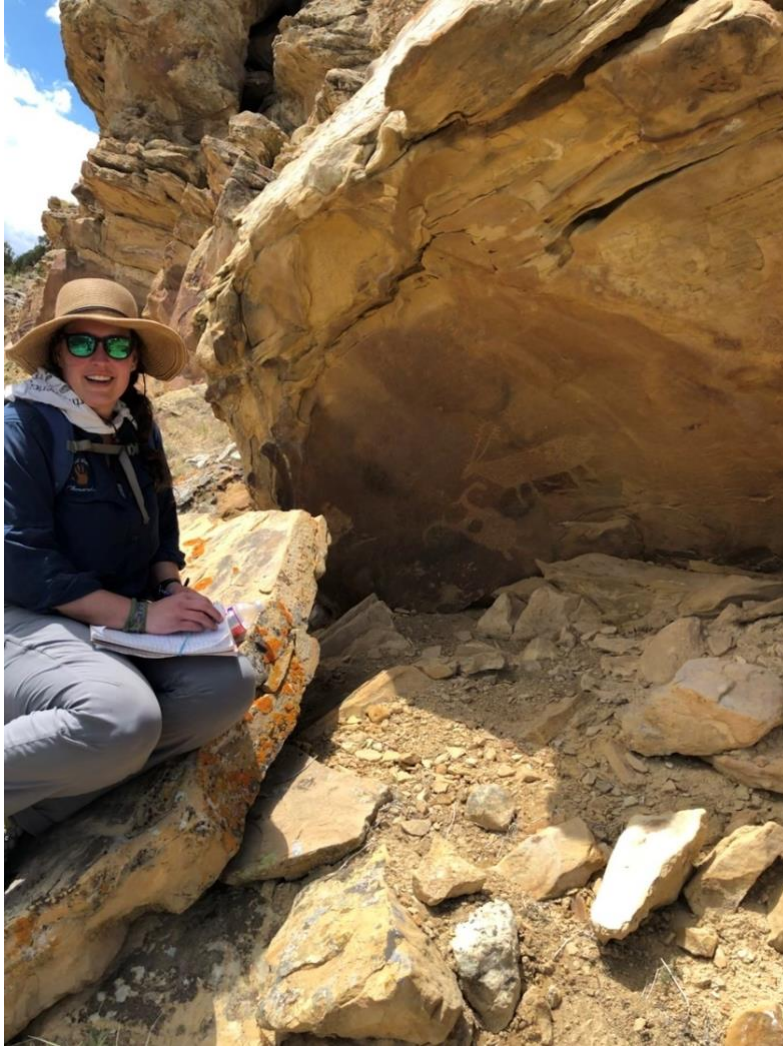
SSR had a large group of volunteers who worked on the field projects in 2020. Aaron Brien, Amanda Castaneda, Cobe Chatwood, Susan Hovde, Charles Koenig, Larry Loendorf, Sara Scott, Greg White, Laurie White, and Mark Willis worked on the Ryegate project. Fish Creek and the visit to Kibbey Canyon were made by some of these individuals, as well.

We were especially pleased to have Aaron Brien, an enrolled member of the Crow Indian Tribe on the crew. Aaron has recently taken on the job of Tribal Historic Preservation Officer for the Crow Tribe, so we expect to see more of him at Montana projects.

The field crew at the Manila site consisted of Larry Loendorf, Cobe Chatwood, Laurie White, Mark Willis, Amanda Castaneda, Charles Koenig, David Kaiser, Nina Bowen, Darlene Koerner, Tim Sweeney, Mary Hopkins, Julie Francis, Diana Acerson, Steve Acerson, Ann Phillips, Dave Phillips, and Susan Hovde. Meinrat Andreae and Traci Andreae worked with us to study the composition of the rock varnish. SSR is blessed to have so many qualified volunteers.

A piece of major news is the addition of Amanda Castaneda to the SSR board of directors. Amanda worked for the Shumla Archaeological Research and Education Center until moving to Laramie, Wyoming in 2019 where her husband, Charles Koenig is in the graduate program at the University of Wyoming. At Shumla, Amanda helped lead several long-term rock art documentation projects and she is experienced in recording rock art sites at every level of the process, including SfM photogrammetry and digital illustration. She completed her undergraduate and Masters degrees in Anthropology at Texas State University – San Marcos. Her graduate research focus on recording and analyzing the morphological variation of ground stone bedrock features (e.g., bedrock metates and mortar holes) in the Lower Pecos Canyonlands of Texas. She has also participated in a contract project to record bedrock mortars outside of Carlsbad, New Mexico. Since moving to Wyoming, she has participated in several SSR projects in 2019 and 2020. Amanda works for the Cultural Records Office of the Wyoming State Historic Preservation Office, where her main task is writing a National Register of Historic Places nomination for the Wold Rock Art District in Johnson County, Wyoming. Larry and Julie Francis are co-authors on the nomination.





*Amanda recording at Rocky Ridge.*

Other news to report about SSR Board members.

Mark Willis was given the Oliver Award from the American Rock Art Research Association. The award is for an individual who completes excellent rock art photography and while Mark takes superb photographs, he won the award for the innovative ways he takes photographs and for his work with three-dimensional model making to study rock art sites.

Lawrence Loendorf was given the Plains Anthropological Society Distinguished Service Award. The plaque with the award reads: "For life-long dedication to Plains anthropological scholarship and service to the profession". It is a nice honor.

Other accomplishments include presentations by SSR board members of lectures.

Amanda Castaneda

2020 Lower Pecos Rock Art: Preservation of a Patterned Resource. Paper presented at the Cheyenne Chapter of the Wyoming Archaeological Society February Meeting, Cheyenne, Wyoming.

May 28 “Hole in the Wall Rock Art” presentation for the Wold Family Ranch. The ranch families wanted an update on the status of the National Register Nomination. Zoom

Lawrence Loendorf

April 20 “The Archaeology of Rock Art” for the New Mexico Archaeological Site Steward annual meeting. Zoom

May 19 “The Archaeology of Rock Art” for the Albuquerque Archaeological Society. Zoom

October 4 “Coso Petroglyphs and Dinwoody Petroglyphs” for the Utah Rock Art Research Association annual meeting. Zoom

November 5 “The Archaeology of Rock Art” for the Pueblo Archaeological and Historical Society, hosted by Crow Canyon Archaeological Center. Zoom

Lawrence Loendorf and Laurie White

June 6 “Buffalo Caves, Emergence and Transformation” for the American Rock Art Research Association. Zoom

Lawrence Loendorf and Cobe Chatwood

June 22 “George Droulliard Explores the Cody Region in 1807” in person lecture for the Cody Wyoming chapter of the Westerners Corral.

Mark Willis

December 10 Creating 3-D images of archaeological landscapes, sites, and individual artifacts. Indian Peaks Chapter, Colorado Archaeology Society. Zoom

October 1-7 Gallantry in Action: Documentation and Virtual Restoration of the Baron Rudolf Von Ripper Mural at Fort Bliss using Structure from Motion Photogrammetry at the Association for Preservation Technology International & National Trust 2020 Joint Conference, Edmonton, Ontario, Canada. Zoom

## Publications

Loendorf, Lawrence and Mark Willis

2020 Tool Grooves and Drill Holes at the Robert’s Indian Caves Site, New Mexico. *American Indian Rock Art*. Edited by Richard Rogers, Evelyn Billo and Robert Mark. 46:163-172. American Rock Art Research Association. Cupertino, CA.

Steelman, Karen, Charles Koenig, Amanda Castañeda, Jerod Roberts, and Victoria Roberts

2020 Portable XRF Elemental Analysis at the Meyers Springs Pictograph Site. *American Indian Rock Art*, Volume 46, edited by Richard A. Rogers, Evelyn Billo, and Robert Mark, pp. 65-78. American Rock Art Research Association. San Jose, California.

*Tikin Ha and Ancient Maya City Planning in the Eastern Three Rivers Adaptive Region* by Brett Houk, Gregory Zaro, and Mark Willis. *Research Reports in Belizean Archaeology*, Vol. 17, 2020, pp. 93-104.



*From Urban Core to Vacant Terrain: Defining the Heterotopia of Maya Monumental Landscapes at the Crossroads of the Middle Belize River Valley* by Eleanor Harrison-Buck, Mark Willis, Chester Walker, Satoru Murata, and Marieka Brouwer Burg. In the book *Approaches to Monumental Landscapes of the Ancient Maya*. University of Florida Press.

*Aboriginal Timber-Built Deer Corral-Traps in Mineral County, Nevada* by Dani Nadel, Philip Wilke, Mark Willis, Amnon Nachmias, Matthew Hall, and Eric Dillingham in *Journal of Field Archaeology*.

*Revisiting Cerro Rojo and Other Sites of the Organ and Hueco Mountains of Fort Bliss*. Fort Bliss Historic and Natural Resources Report No. 18-19. Directorate of Public Works, Environmental Division, Fort Bliss Garrison Command, Fort Bliss Texas. QRI-GMI JV. Report No.25-035. Versar, Inc. Report No. 875, El Paso, Texas by Graves, Tim, Mark Willis, Myles R. Miller, Lawrence L. Loendorf, Katherine Jones, and Juan Arias.

*Von Ripper: His Legacy and Digital Reconstruction of Mural, Fort Bliss Military Reservation, El Paso County, Texas*. Directorate of Public Works, Environmental Division, Garrison Command, Fort Bliss Military Reservation. QRI-GMI JV Report Number 25-041 by Nicky DeFreece Emery and Mark D. Willis.