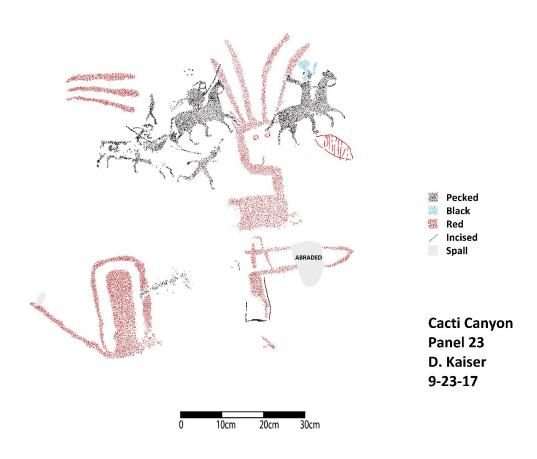
Sacred Sites Research, Inc. 2018 Annual Report Prepared by Lawrence Loendorf

Sacred Sites Research, Inc. (SSR) had another outstanding year with many positive outcomes to projects. Each year we improve upon our standing within the North American archaeology community as an excellent company for research related to rock art sites and more importantly, we gain greater financial stability. This only happens with the support of donors, volunteers, and the contributed effort of SSR board members who give freely of their time to make SSR a success.

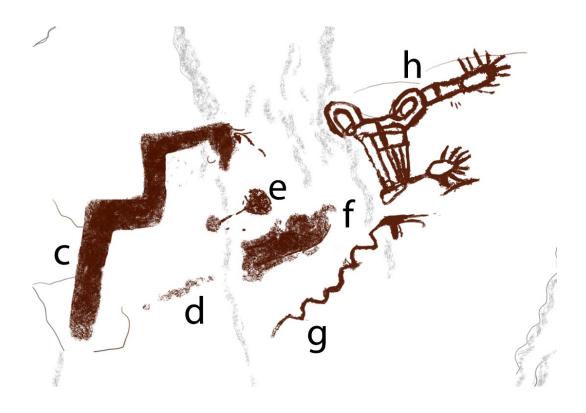
The Permian Basin-Carlsbad project was the major effort during the year. Working with archaeologists from Versar, Inc, SSR recorded 17 new sites and evaluated four previously recorded sites in the Carlsbad area. Most of the sites had only 5 or 6 panels but one site had 30 panels of complicated petroglyphs and pictographs that were recorded with photography and scale drawings or in some cases the panels were traced in the field and reduced in the laboratory for inking and final presentation. There were nearly a dozen horses and riders at the site which is unusual for sites in this area of New Mexico.



Horses with riders chasing pedestrians in a scene at Cacti Canyon. The figures are superimposed on a face or mask from an earlier time period.

One fascinating group of paintings included what looks like a cactus plant with two horned serpents. One of the snakes was made with a fine tip tool, perhaps a brush or maybe a bone or wooden stylus. The small size and delicate make-up of the figures led us to suggest the panel represented the Guadalupe Red Linear style, a regional rock art type that is noted for its miniature figures. Radiocarbon dates for Guadalupe Red Linear figures, a few kilometers from this site are 3500 to 4000 years before the present, so we thought we might have found a very old horned serpent. We were wrong.

As a part of the project, Karen Steelman, who coordinates the Plasma Oxidation Radiocarbon dating program at the Shumla Archaeological Research and Education Center in Texas, collected samples from the painting for dating. The date was 670 years before present or circa A.D. 1335, an age that fits well when horned serpents are found at other sites in the region.



Drawing of the horned snakes, one finger made and the other applied by brush or a stylus. The unusual plant-like figure is dated at 670 years before the present.

Lots of new discoveries were made on the project. At one site, we found hundreds of holes, associated with grooves, drilled into the sandstone rock. This seems like an unusual discovery, but SSR Board Member Mark Willis has found a half-dozen similar sites along the Pecos River in Texas to the south of Carlsbad, New Mexico.

We puzzled over these holes for some time. At first, we thought they might be natural, but that is not the case, as with closer examination they were made by humans for some purpose. The latest hypothesis is that they were used in making arrows.

For years, archaeologists have suggested that the groove marks are for shaping tools like arrows, awls and other wood and bone handles for tools. The drilled holes are a new find that may exist elsewhere, but they are common along the Pecos River and apparently always found near water. We think this could reflect the presence of Phragmites, a reed that was used to make two-part arrows across North America. A wooden portion, often chokecherry or red willow, was fitted into the reed for the two-part arrow. The drilled holes would work well for smoothing or sanding down the end of the wood part of the arrow so it would fit into the reed portion. Another possibility is that the holes worked to sharpen the ends of wood arrow shafts. Many arrows were used with fire-hardened tips that lacked any stone points.



Hundreds of holes drilled into the sandstone wall. We suspect they were used in making arrows.

Many more new discoveries were made in the Permian Basin project. They will be presented in the final report which is due to be released in June 2019. One of the final tasks for SSR is to present a compilation of the findings to the Hopi Tribe in mid-June.

The second major project SSR undertook in 2018 was an effort to record five rock art sites on Fort Bliss, the United States Army Base with headquarters in El Paso, Texas. One site is a massive rockshelter that is in the side of the Sacramento Mountains hundreds of feet above the

desert floor. It contains dozens of multi-colored paintings. Another site in the Franklin Mountains is tucked beneath several huge boulders that form a sheltered area. It has a near constant stream of water flowing into it with a pond of water below the boulders. It has only a single painting but the fact that there is this pristine little pond of water is remarkable in such a dry desert region. Unfortunately, Fort Bliss regulations do not allow us to put photographs or illustrations of the sites in a public document.

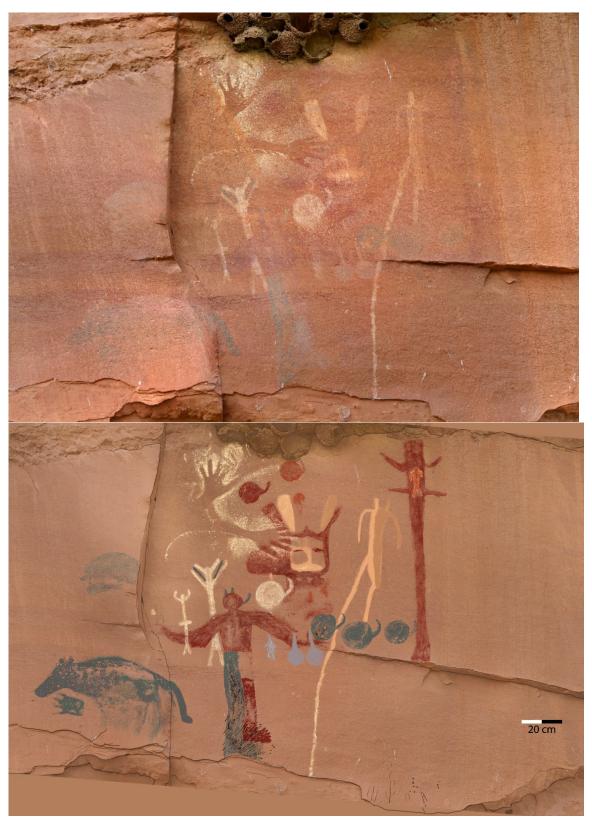
In July, SSR returned to the Hole in the Wall sites on the Wold Ranch west of Kaycee, Wyoming to continue recording parts of the main sites and to explore for new sites. The goal at the main sites was to record Panel 10 on site 48JO4 which we knew would be a challenge because the paintings are nearly 20 feet above the ground.

Fortunately, John Laughlin found a place to get a truckload of scaffolding to a nearby location where we could carry it across the river to set it up in front of the panel. Once it was up, Mark Willis could do close-up photography, and Laurie White with her daughter Maya Bontrager as an assistant, were able to photograph and sketch the panel in enough detail that they could complete the panel drawing. And what a panel it is with figures that have never been found before in Wyoming.

We also found new figures in the main sites and several new sites, including one with shield warriors that add immensely to the understanding of the distribution of shield figures. More information about these finds to come after the upcoming 2019 work at the Wold Ranch.



John Laughlin and Mark Willis carrying scaffolding across the Middle Fork of the Powder River. Laurie White and daughter Maya Bontrager on the scaffolding where they made a detailed drawing of the panel.



Photograph of the complex panel (Top); Drawing of the panel (Bottom). There are many unusual figures in the panel.

In a small project SSR assisted Jefferson County Open Space with the evaluation of a rock painting site found on county lands west of Denver, Colorado. The site was reported by an Open Space monitor and initially recorded by archaeologists from the Colorado State Archaeology Office. There was a question as to the authenticity of the figures at the site and SSR was brought in to resolve the issue.

The very small paintings are under small crevices in the rocky outcrop on a site that overlooks the City of Denver to the east. They are well-made representations of thunderbirds, human faces, and spirals that are in a black dense pigment. Deciding if they are real or not was not an easy task, as they appear to have some lichen cover so they must have been made some years ago.

We used all the technology we could to study the figures, bringing in the PaleoResearch Institute to examine them with a portable X-ray fluorescence instrument. Unfortunately, none of the studies provided a definite answer as to the authenticity of the figures. We did learn that the black pigment is charcoal based, but many black paints have that pigment as the coloring agent. In the end, based on the unusual nature of the mixture of figures and the fact that no group of motifs like them are found anywhere in the American West, we concluded they are not authentic.

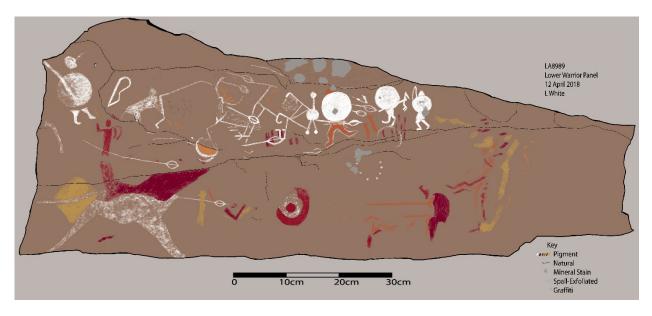
We also recommended that a sample be removed from one of the paintings for Plasma Oxidation dating. This would solve the issue as we think they may have been made with a grease pencil or a marker pen and if this is the case, we will learn that in the dating process.



Series of photographs, some enhanced, that show the figures at the Jefferson County Open Space site. We think the figures were made by Boy Scouts or some non-Native person.

A small volunteer project was completed with the National Park Service at Salinas Pueblo Missions National Monument near Mountainair, New Mexico. Ron Fields, the Monument archaeologist, found a panel of small figures, tucked into a niche in the side of the Abo upper site. The figures are in a battle scene with their shields and some figures appear to be retreating or running away from the battle. Arrows are flying.

The panel is an example of a narrative or biographic rock art panel, and although these kinds of scenes are common on the Plains, they are rare in the American Southwest. The Abo site is on the border lands with the Plains which may account for it at the site.



Battle scene at the Abo Painted Cave site. One group of pedestrian shield warriors appear to be chasing another from the site while an overseer watches the battle.

Cobe Chatwood and Larry Loendorf engaged in a fascinating non-rock art project to "ground truth" an historical map drawn by William Clark with information supplied by George Droulliard in 1808. At the request of Manuel Lisa, Droulliard made two exploratory treks to lands west and south of Fort Ramon at the mouth of the Bighorn River. His goal was to tell the Indians he encountered about the Fort and the opportunity to trade.

There is also secondary data like the grass that the Indian horses ate, and a description of a blue stone used by the Crow tribe to make beads and pipes. We were fortunate to find, in the Billings Curation Facility, a blue bead or pendant made from a soft stone that was found at a Crow campsite visited by Droulliard in Carbon County, Montana. Using the map and other information we have found a soft blue stone on the Beartooth Plateau that we think represents the source of the beads. We plan to make more discoveries using the map in the coming year.



Blue stone found on the Beartooth Plateau that we think was used to make beads and pipes. The bead or pendant was found on a Crow Indian campsite that Droulliard visited in 1808.

In July, SSR presented an illustrated lecture to a group of individuals completing a BioBlitz on the Tensleep Nature Conservancy property in Wyoming. The lecture focused on the rock paintings of a Crow Indian sacred tobacco garden in an alcove on their property.

SSR board members Larry Loendorf and Mark Willis presented lectures at the International Federation of Rock Art Organizations meeting in Valcamonica, Italy. Loendorf lectured at the Albuquerque Archaeological Society, the American Rock Art Research Association, the Colorado Archaeological Society, Colorado Springs Chapter, the North Dakota Heritage Center, and Southwest Seminars in Santa Fe, New Mexico. Loendorf also taught a two session class on rock art for the Renesan Center in Santa Fe, New Mexico.

Publications by board members include:

Loendorf, Lawrence and Cobe Chatwood 2019 A Source for Blue Beads and the George Droulliard Map. *Archaeology in Montana* in press.

Willis, Mark

2018 Grotte de Marsoulas (Haute-Garonne): Releves d'Art Parietal Paleolithique by Carole Fritz, Gilles Tosello, and Mark D. Willis, Maison des Sciences de l'Hommes de Toulouse, CREAP Cartailhac.

In October 2018, Willis received an Honorary Appointment at the University of Flinders in Adelaide, Australia. He will be helping design the University's rock art recording and 3D documentation program. His team was awarded a NRG grant from the Australian government to study the Peñablanca caves of northern Philippines. That work will take place in 2019.

Board member Carolyn McClellan has retired from her job at the National Museum of the American Indian. She has moved to Oklahoma where she is building a home that is close to where her children live. She has many plans for coming days, and we wish her the best.

To summarize, the year 2018 was very good for SSR. We are nearly finished with our sponsored projects and planning some SSR volunteer projects for 2019.