
PERMIAN QUARTERLY

Permian Basin Programmatic Agreement Quarterly Newsletter

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Charlie Haecker explains to his class how they will go about metal detecting a historic period Apache site located in the Guadalupe Mountains National Park. Charlie was an instructor at a workshop entitled, “Advanced Metal Detecting for Archeologists,” sponsored by the Register of Professional Archeologists. Read more about metal detecting Apache sites in this newsletter.

Introduction to the Permian Basin Programmatic Agreement (PA)

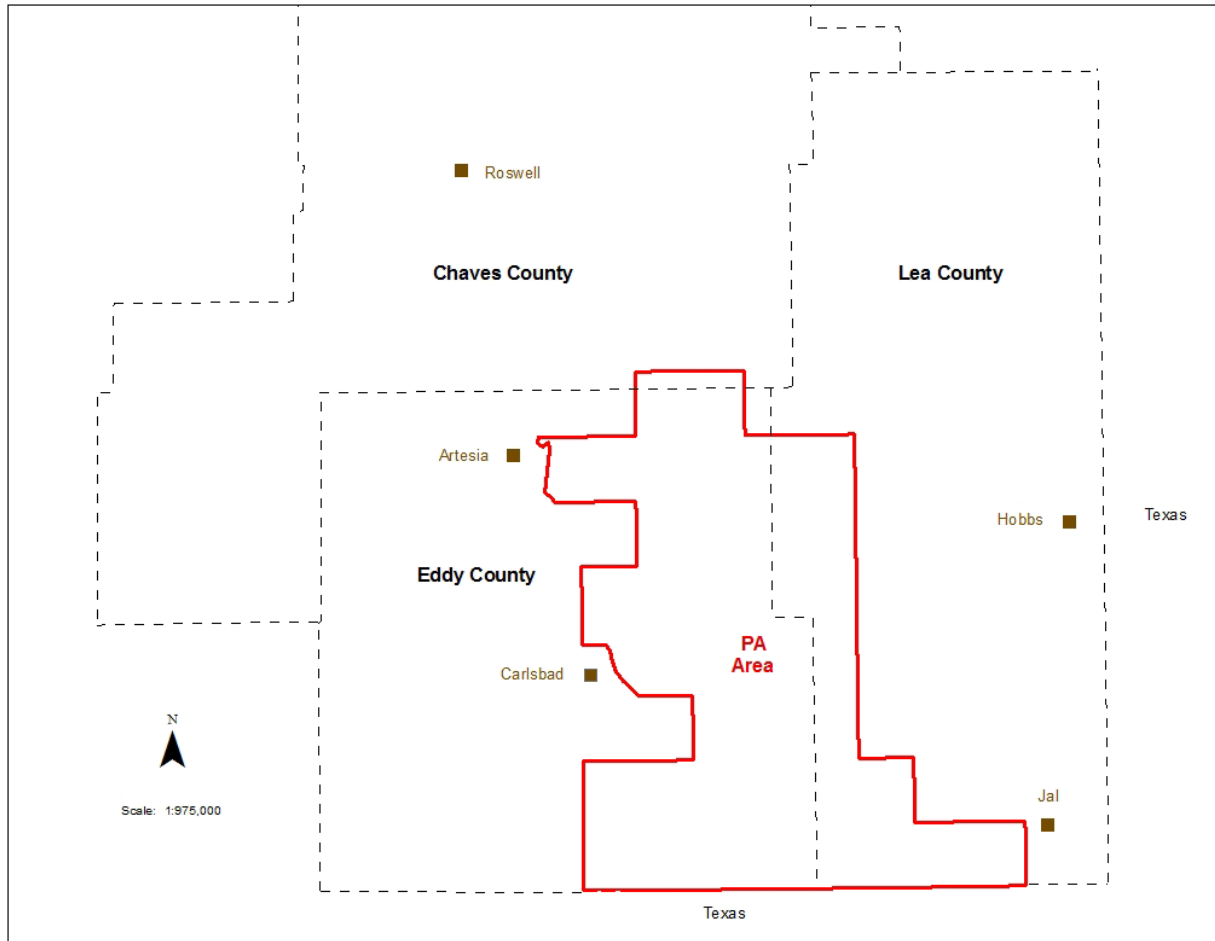


Figure 1. Map showing the Permian Basin PA Area.

The Permian Basin Programmatic Agreement (PA) is an alternate form of compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, that is offered to the oil and gas industry, potash mining companies, and for other industrial projects located in southeastern New Mexico. The PA can be used for federal projects located on Bureau of Land Management (BLM) land or BLM sponsored projects located on private property. Originally begun as a Memorandum of Agreement (MOA), it was extended for a period of three years in April 2013 as a Programmatic Agreement (PA) and the PA was further extended for a period of 10 years beginning in May 2016. The PA area is located partially in Chaves, Eddy, and Lea counties. Proponents of projects within the PA area may contribute to a dedicated archeological research fund in lieu of contracting for project specific archeological surveys, provided their proposed projects avoid recorded archeological sites. This dedicated fund is used to study the archeology and history of southeastern New Mexico.

Current PA News

Research Update

Salado Draw Contract is Issued

A contract for archeological survey and limited excavation at 36 sites located in Salado Draw has been issued. The entire drainage will be surveyed using the Transect Recording Unit (TRU) survey method and sites that are located on Bureau of Land Management (BLM) property will be examined using small-scale excavations. Salado Draw is similar to other locations within the Mescalero Plain. A number of prehistoric archeological sites are found on the broad floor of the draw, while others are located on the adjacent ridge tops. All of these sites were found during archeological surveys for oil and gas wells or pipelines that are located within the watershed. There is one significant difference, however. Through the years a total of 14 Paleoindian projectile points, or projectile point fragments, have been found in the lower reaches of the draw. Clovis, Folsom, Midland/Plainview and Dalton types have been discovered, indicating that the draw was potentially visited by groups of people from the late Pleistocene into the early Holocene or from approximately 12,000 B.C. through approximately 8,000 B.C. This locality has produced the greatest number of these ancient points by far, more than at any other location within the Carlsbad Field Office (CFO).

A 2015 pipeline survey through Salado Draw included a geomorphological survey. The geomorphologist excavated small test units within one of the sites in which Folsom and Dalton points had been found. His tests indicated the soils within Salado Draw have the same stratigraphic sequence as those farther east, including the Midland point type site located along Monahans Draw in Texas. These tests indicate that Pleistocene age soils can be found in Salado Draw. Thus, the archeological and geomorphological evidence all point to Salado Draw as a prime candidate for finding evidence of early Paleoindian sites or artifacts in an undisturbed context and this is a major goal of the project.

There is more to be learned at Salado Draw, however, and the Statement of Work for the project doesn't ignore other sites that date to later time periods. These later sites include Formative period campsites, dating to circa A.D. 500 to A.D. 1450 and a smaller number of specialized sites containing manos, metates, and large bifaces, commonly called "agave knives." Gravel deposits of chert and quartzite on the ridges above the draw were sources of stone for flaked-stone tools. Comparisons between the stone found in these sources and the tools found in the camps and other sites in the draw can potentially be used to identify those made from local materials and those tools that come from distant sources.

A potential thread useful to tie together all sites from all time periods and sites with different functions, for example, camps and lithic procurement locations, is to examine the pollen, phytolith, and macrofloral record preserved within each of the sites' boundaries and within the Salado Draw landscape itself. Finding productive contexts for these samples will be a challenge, however. Erosion has affected the Salado Draw sites, just as it has those elsewhere within the Mescalero Plain. Macrofloral samples commonly come from charred plant materials found in hearths or roasting pits, however, many of these features have been eroded away and now consist of scattered burned rocks resting on the ground surface. Their macrofloral samples have been scattered and destroyed by this erosion. Plant pollen is produced annually and it may be used to show where particular plants grew or where they were transported by people for use elsewhere, but the sandy soils of the Mescalero Plain blow and shift, destroying pollen

grains and their context in the soil. The same is true for phytoliths, which are glass structures produced by some plants. These fragile samples are also adversely affected by the sandy soils. Despite these obstacles it is worth searching for intact samples. Information from these sources can potentially show how the draw's vegetation appeared through time and possibly aid in discovering what resources attracted people to the draw, particularly in Paleoindian times.

The report of the investigations within Salado Draw have the potential to add significant new information about the earliest people to inhabit the region that now constitutes southeastern New Mexico and to add important details about later prehistoric societies that called this area home.

BLM Signs Assistance Agreement with the Office of Contract Archeology

The BLM has entered into an assistance agreement with the Office of Contract Archeology of the University of New Mexico to find, record, and analyze perishable artifacts that were excavated from rockshelters in the Guadalupe Mountains. Burnet's Cave and Hermit's Cave were excavated in the 1930s and both sites produced artifacts made of fiber, wood, and feathers that had been preserved though time in those sheltered environments. Similar artifacts were undoubtedly present in many of the open sites found throughout the CFO, but the effects of weather through hundreds or even thousands of years caused them to decay and disappear. For readers wanting more information, the excavations at Burnet Cave were described in a previous *Permian Quarterly* article in Volume 4, Number 2 and Hermit's Cave was described in Volume 5, Number 4. Similar artifacts from six other caves or rockshelters are included in the project. These artifacts have not been examined since their excavation, some 80 years ago, while others have had only cursory description. Fortunately, they have been preserved in collections and researchers will visit four museums for the purposes of the project

Examples of perishable fiber artifacts include sandals, baskets, ropes and strings. Smaller numbers of other items including small sticks, fiber bundles, and grass rings are also present. A primary goal of the project is to obtain radiocarbon dates for these items. They were all collected prior to the development of the radiocarbon method of dating and obtaining these dates will allow them to be placed into more precise time periods. Only a very small sample of material is required for dating and, for instance, small pieces that may have flaked off an object can be used for that purpose. Consultation with Indian tribes having ancestral ties to the Guadalupe Mountains will take place as an initial step in the project to assure that these objects are handled in accordance with tribal wishes.

The proposal has five questions to answer:

Research Question 1: What are the ages of some of the perishable artifacts in the region of the Guadalupe Mountains of southeastern New Mexico and west Texas?

Research Question 2: Can manufacturing techniques and/or styles be identified for the various classes of perishable artifacts and, if so, how do they compare with techniques and styles identified for similar artifact classes used by other prehistoric cultures in other regions of the Southwest?

Research Question 3: Do certain manufacturing techniques or styles of perishable artifact classes correspond with trends in radiocarbon dated ages (i.e. were certain weaving techniques of

baskets, mats, and cordage, or construction techniques of sandals favored at certain times of prehistory)?

Research Question 4: What native plants were used for the manufacture of the perishable artifacts? Were these plants selected consistently across time and geographical space? A paleobotanical specialist will analyze the macrobotanical remains to identify the species or plant family.

Research Question 5: What are the current conditions of the Hermit's Cave and Burnet Cave archaeological sites?

The proposed examination of these perishable artifacts will contribute information about the people who inhabited southeastern New Mexico in prehistoric times that cannot be obtained from any other source. A fortunate consequence is that the study of these artifacts will illustrate the ingenuity and skill of their makers.

Other News from the Permian Basin

Advanced Metal Detecting for the Archeologist Class is Held at the CFO

The Carlsbad Field Office in cooperation with the Register of Professional Archeologists and the Guadalupe Mountains National Park sponsored the 14th Advanced Metal Detecting for the Archaeologist (AMDA) class in late September. The goal of the class is to provide professional archaeologists with an understanding of current best practices in metal detecting, and to provide the opportunity to gain hands-on experience using a variety of metal detector makes and models. There were 8 hours of classroom work, with 16 hours of fieldwork. Instructors were Charles Haecker, retired National Park Service Archeologist, Chris Adams, Archeologist with the Gila National Forest, and Joseph Balicki, Regional Director of the Register of Professional Archeologists. The impetus for this class on the part of the CFO was to provide Permian Basin PA contractors with training for a future PA project to record historic period Apache sites in cooperation with the Mescalero Apache Tribe.

The classroom portion of the training was held at the Carlsbad Field Office. A brief history of the use of metal detectors in archeology was presented. It was noted that there was a bias against the use of metal detectors in archeology, primarily due to their use by hobbyists for artifact collecting and the subsequent damage or destruction to historic period sites. However, a metal detector is a tool and students learned details of previous metal detector projects that were undertaken as archeological research projects. One of the earliest and most notable projects was the 1984 Custer Battlefield Survey in Montana, by Doug Scott, National Park Service archeologist. Locally, Chris Adams, an archeologist with the Lincoln National Forest studied two Mescalero Apache villages, the Last Chance Canyon and Dark Canyon Rancheria that were involved in fights with the United States Cavalry. Information about the types of metal detectors available was presented and discussions were held about the pros and cons of each type. This was followed by a demonstration of the use of the detectors by the class, as a preliminary exercise before the fieldwork portion of the program.

Fieldwork sessions were conducted on the site of a 19th century Mescalero Apache encampment (ranchería) in the Guadalupe Mountains National Park. For over three centuries the Mescalero Apaches occupied the Guadalupe Mountains, which afforded them an abundance of resources as well as providing

a natural defensive stronghold within secluded drainages and canyons. Their security was challenged during November-December 1869, when a cavalry unit attacked and destroyed three rancherías. This military action ultimately forced many of the Mescalero to abandon the Guadalupe Mountains and surrender themselves to military authorities at Fort Stanton, NM. Archaeological evidence suggests the AMDA field session was conducted on one of rancherías that was attacked and destroyed by the U.S. cavalry in 1869.



Figure 2. Students use metal detectors at an historic Mescalero Apache site. Find spots are marked with red flags.

The fieldwork sessions allowed the participants to get comfortable using a metal detector and before long red flags were sprinkled throughout the survey area as finds were made. This was an eye-opening experience for many of the prehistoric archeologists as artifacts invisible on the ground surface began to be discovered. Significant discoveries included cone-shaped metal tinklers (called jingles by modern Mescalero Apache tribal members) that were (and are used today) as decoration on clothing and artifacts such as woven baskets. Also found were a portion of a decorative piece used on a horse bridal, historic lead balls and bullets (some fired), a hand-forged nail, and metal buttons, some from pre-Civil War uniforms. All of these find locations were marked with GPS readings and they were cataloged in the field. The information collected by the class will be added to previous survey information from the site to form a more complete picture. The metal detector information will also be useful to the Park Service for future management of the site location.



Figure 3. Holly Houghten, Mescalero Apache Tribe Preservation Officer, prepares to investigate a metal detector find spot.



Figure 4. A hand-forged nail was one of the metal detector finds.

Class members were complimentary about the class and for the opportunity to learn so much in a short period of time. For those members who had never used a metal detector before the class was a unique experience, but one that they hoped to repeat in the near future.

Permian Quarterly Editor Retires

I will be retiring on September 30, 2019 after 14 years at the CFO. I have enjoyed being the editor of the *Permian Quarterly* for the past seven years. I hope these articles highlighting projects that have been completed through the Permian Basin Programmatic Agreement have been entertaining and educational for readers of the newsletter. – Martin Stein

Newsletter Contact Information

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