

Colorado 2016 Highlights

Paleontology

Paleontology Resource Education (BPS #1268): The Royal Gorge Field Office (RGFO) is working with the Royal Gorge Regional Museum and History Center to create the “Digging It, Fossils of Fremont County Exhibit”. The exhibit highlights the Marsh Quarry among several other historic quarries from the Garden Park Paleontological Area, as well as, various other fossil localities throughout the area and the individuals that worked the quarries. The Museum has developed programs for younger and older students that visit the exhibit that highlight the connection of these locations to public lands. The exhibit is based on the federal fossil collection that they are housing. The exhibit allows public access to parts of the collection. The RGFO and Museum together hosted a Federal Fossil Adoption Ceremony on August 10, 2016.

The RGFO assisted in creating a Junior Explorer Activity booklet for the Gold Belt Byway. Funds were raised to print 2,000 copies that were distributed to the public. Over 10 presentations were given by RGFO staff, volunteers, and a General Service Administration student. Most presentations are geared toward elementary aged students. Presentations were given to a local elementary school for Science Friday, the Boys and Girls club, Science Night in Salida, CO, and a Colorado Natural Areas field Trip honoring volunteers. The RGFO participated in the Geological Society of America’s K-12 teacher field camp and is developing Earth Caches for Marsh Quarry and Cleveland Quarry.



Photo taken by Kyle Sullivan during the Fossil Adoption Ceremony on August 10, 2016: Present from left Keith Berger RGFO Field Manager, Preston Troutman City of Canon City Mayor, Lisa Studts Royal Gorge Regional Museum and History Center Curator, Melissa Smeins RGFO Geologist, Harley Armstrong, BLM Colorado Paleontologist.

Museum

With funding from a 2016 DOI grant, the Grand Junction Field Office (GJFO) started and built on numerous successful projects with the Museum of Western Colorado (MWC). The projects included archaeology and paleontology kids' camp, which engaged third- through fifth-graders by using BLM collections at the museum. The GJFO and MWC camps this year utilized a curriculum developed last year and developed a new STEM (science, technology, engineering, and math) based format with a focus on historic archaeology and trails. The camps continue to be very popular in our community. The GJFO has also worked with the museum to create new traveling paleontology and exploration kits for schoolchildren using BLM collections, which will be put into circulation during the 2016-2017 school year. Finally, the BLM and MWC are working on additional educational websites using BLM collections and sites. GJFO and MWC received a DOI grant for \$50,000 to expand its growing BLM paleontological collection at Dinosaur Journey and the BLM anthropological collection at Museum of the West. This grant provided MWC with assistance to develop its capacity to professionally care for the prehistoric and historic resources that have come from the surrounding BLM land. Long-term stewardship of these collections will ensure the ability for the public to positively interact with these collections. The GJFO also received funding for a National Council for Preservation Education intern to work at the MWC for the Summer of 2016.

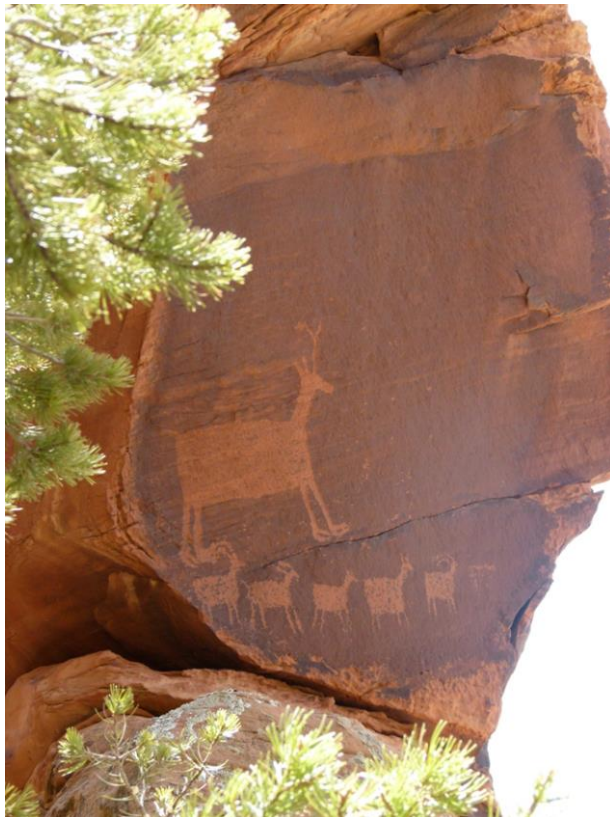


Students in McInnis Canyons National Conservation Area learning about local geology and paleontology.

Paradox Valley Rock Art Conservation & Site Monitoring (BPS #1535):

The Paradox Project is now entering its seventh year of research in western Colorado. Beginning in 2009, the Paradox Project set out to inventory a remote area in the eastern Paradox Valley known to be home to numerous examples of Ancestral Puebloan Rock Art. The area has been proposed as a Cultural Resource ACEC in the Uncompahgre Field Office (UFO) Resource Management Plan, and is being intensively investigated with the goal of creating a National Register of Historic Places District.

For the first four years, BLM hosted the collaborative archaeological field school effort in the Paradox Valley between BLM, Western Wyoming College and Lee University. This year marks the third year of collaboration with an international group lead by Yale University. Other partners in the group include the University of Pretoria (South Africa), the New Zealand Conservancy and the Mongolian National Museum. Each year, selected graduate students from each institution travel to archaeological projects around the world. To date, the project has inventoried some 1,700 acres of the proposed 2100 acre ACEC and has recorded over 35 rock art panels and 12 prehistoric habitations in the area. The Yale group plans a long-term project extending across much of the locality covering western Colorado and eastern Utah.



Rock art panel in Paradox Valley.

Ute Ethnobotany And Learning Garden (BPS #1384)

The Ute Ethnobotany Partnership is a partnership initiated in 2006 between the Ute Indian Tribe of the Uintah & Ouray Reservation, BLM, Forest Service, National Park Service, CSU Extension Service, Museum of Western Colorado, and Mesa State College. Betsy Chapoose, the Cultural Rights and Protection Director for the Ute Indian Tribe, initiated the idea in hopes of bringing tribal elders and youth back to their aboriginal lands and to learn about plants and their traditional uses. The Ute Indian Tribe provided transportation for elders and youth to visit public lands in the Western Slope. The reconnection with their aboriginal lands ignited many thoughts and remembrances of their ancestors before removal from Colorado in 1880 and sparked support to continue the project.

The activities associated with the “Learning Garden” have expanded over the years. It is used year-round by schools groups, families, senior groups, and clubs from the local community. Field trips are offered in June and September for school groups on public land. Craft sessions are periodically presented for children. Master Gardener docents are now trained to help maintain the garden. More importantly, the fundamental component of the program thrives; bringing Ute Indian Tribe elders and youth back to their aboriginal homeland and for elders to teach children about their traditional ways.



Children enjoy learning about wickiups at the Ute Learning Garden.

Skull Creek WSA Cultural Resource Survey (#543)

In partnership with Colorado State University (CSU) the White River Field Office (WRFO) hosted a 12 day archeological field school in the Miller Creek Archeological District (5MF 2016). The project provided teaching, training, and research opportunities for undergraduate and graduate students and faculty from CSU. Approximately 24 Students from CSU participated in the field school. Students carried out minor systematic testing of a Fremont era pit structure, and a previously looted rockshelter to locate intact buried cultural. Students also learned photogrammetric (3-d) mapping at several of the better preserved corn storage granaries. Photogrammetric mapping will create 3-d models of features that can be used for public interpretation, condition assessment, and volumetric research on granary size. Lastly, students were able to participate in Class III survey to look for previously undocumented cultural resources alongside WRFO archaeologists. On the last day of the field school member from the Colorado Archaeological Society (CAS) Vermillion Chapter in Craig, Colorado visited the excavation and several of the granaries.



Fremont granary in rock shelter near Skull Creek.

NLCS/McInnis Canyons NCA - Skinner Cabin Cultural Site Project (BPS #1346):

BLM began work on a project to rehabilitate and stabilize Skinner Cabin, a stone house built in the early 1900s in the MCNCA front country. Partnering with Historicorps, a non-profit that preserves historic properties, work on the cabin will be completed in September 2016. BLM has also partnered with the Museum of the West to provide interpretive kiosks along the trail to the cabin, outlining its unusual history. Once stabilization is complete, BLM will work with Colorado Canyons Association, a local non-profit that works with the area's NCAs, to build a protective fence around the cabin. This project is scheduled for Public Lands Day, September 24th, 2016.



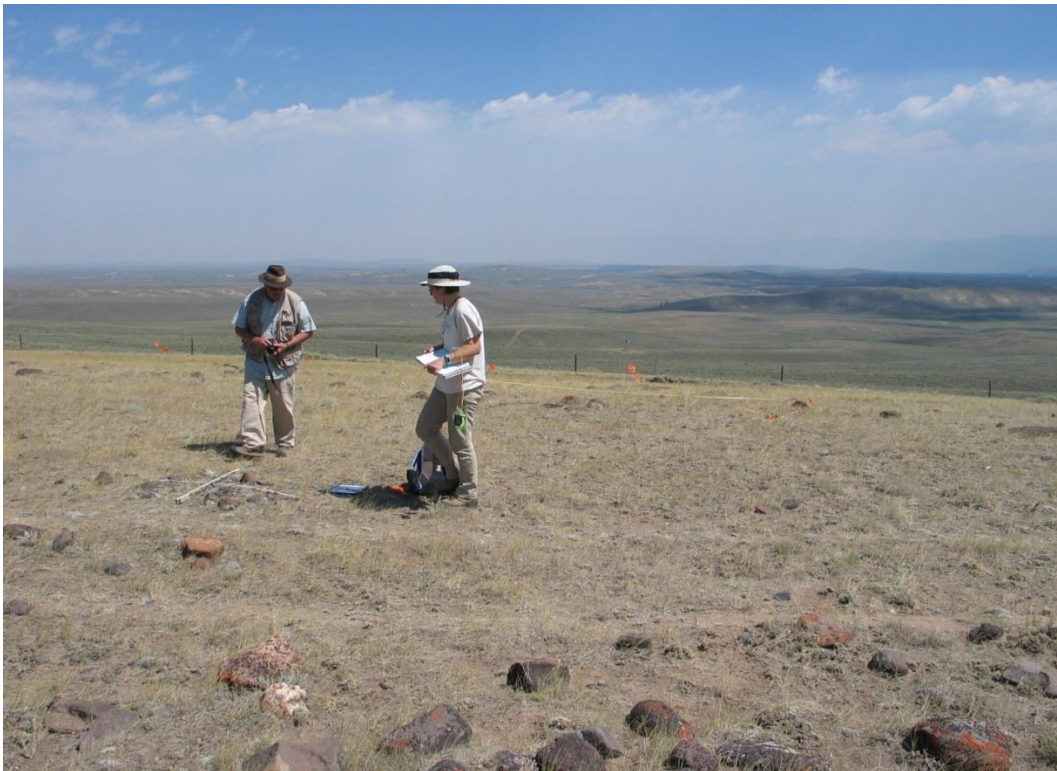
Natasha provides the scale for the monitoring of the Pollock Canyon Cabin 5ME653.

North Park Cultural Landscape Study (BPS # 1315)

This study is an on-going scientific archaeological research investigation into the Native American occupation of North Park, Colorado. The research objectives are to gather scientific data regarding the earliest inhabitants of North America through (1) cultural survey, site recordation and analysis; (2) site testing, excavation, field and laboratory analysis; and (3) ethnographic studies with the three Ute Tribes, Northern Arapaho

Tribe, and Eastern Shoshone Tribe related to traditional cultural and spiritual properties on the landscape. The final objective is to nominate Peterson and Owl Ridges to the National Register of Historic Places.

As part of this fieldwork, Dr. Robert Brunswig continued investigative work on Buffalo Ridge site (5JA319) to document the extensive game drive system, associated camps, and activity localities. The site is a historic bison processing camp. Testing found a single obsidian flake that has been sourced to Obsidian Cliff, Yellowstone which suggests either trade with the Eastern Shoshone or the site confirms their archaeological and historical presence in North Park.



Dr. Bob Brunswig and graduate student mapping a stone feature processing local and another partial stone feature foreground.

NHPA 50th Anniversary (BPS # 1399)

BLM and Hinsdale County worked together to organize a celebration event at the Ute Ulay Mine and Milling Complex on the Alpine Loop. The event featured tours of several mill buildings which are usually closed to the public, an awards ceremony presenting Elizabeth Francisco and Grant Houston with the Heritage Heroes Awards, and a town barbeque. Approximately 85 people attended the event and it was a huge success. The Ute Ulay site is currently being nominated to the National Register of Historic Places and is featured on this year's History Colorado Archaeology Month poster and is listed on the 2015 Colorado Most Endangered Places List.



Ute Ulay site public celebration of NHPA 50th anniversary.

NLCS/Canyons of the Ancients NM - Painted Hand Photogrammetry (BPS # 1706)

Using research funding from the National Landscape Conservation System, the Bureau of Land Management (BLM) Canyons of the Ancients National Monument (CANM), in partnership with the BLM's National Operations Center and the University of Colorado at Denver School of Architecture and Planning's Center of Preservation Research (CoPR) continued work on implementing their digital documentation project at late Pueblo III (ca. AD 1250) sites within the Monument using advanced Light Detection and Ranging (LiDaR), High Definition Surveying (HDS), close-range photogrammetry, and High Dynamic Range photography (HDR) to create three-dimensional models and scaled Historic American Buildings Survey drawings of the site's 750 year-old architecture. Work continued in 2016 with onsite scanning and documentation at both Lowry Pueblo National Historic Landmark and Painted Hand Pueblo. The former project was done through support of the Colorado State Historic Fund and the National Park Service's NHL program.



Staff and students of the University of Colorado at Denver School of Architecture and Planning's Center of Preservation Research and CANM continued work implementing the Monument's Digital Documentation Protocol at Lowry Pueblo National Historic Landmark (5MT1566), Canyons of the Ancients National Monument, Colorado.

Ute Trails of Eagle County

This project focused on inventory of two aboriginal trail systems within the Colorado River corridor. These and other trails are historically significant to today's living decedents of the Ute people and the professional and public communities that value the study of Ute heritage and early western Colorado history. Centrally located in the Ute Indian Tribes aboriginal territory, the two selected trail segments are part of the Sawatch Mountains system (Pisgah Mountain Section) and White River Plateau system (Dotsero Section). A total of 2500 acres were included in a reconnaissance survey for cultural resources. Overall, 33 sites and 71 isolated finds were identified and documented during the project. Sites located within the Pisgah Mountain Section of the trail are associated with springs and exhibit diagnostics from the Early Archaic (ca.5500-3750 BC) and possible Foothill-Mountain complex (ca.9500-700 BC), which indicated this trail was used for a long period of time. Besides the Pisgah Mountain Wickiup Village, which was revisited during the project, newly recorded sites indicating the Early Numic, and

Protohistoric/ Historic Ute occupation of the area include: diagnostic Desert side-notched and Cottonwood Triangular points and a Leaf-shape knife; a campsite with gun parts and Euroamerican tent poles associated with a metal lance point and other Ute artifacts; four brush game blinds associated with game trails, and several other sites with the configuration of Numic camps. The Dotsero Section proved less productive based on a low number of sites and isolates and a lack of diagnostic artifacts. The low site density may be attributed to the lack of springs in the immediate vicinity and to the high relief of the terrain.



Panoramic overview of the Pisgah study area looking south toward Pisgah Mountain.

Johnson Stage Stop/Carr Ranch Historic Structure Assessment and National Register Nomination

The Gunnison Field Office successfully partnered with the Hinsdale County Historical Society (HCHS), and the State Historic Fund (SHF) to complete a Historic Structure Assessment of four historic cabins located at the Johnson Stage Station site. The Johnson Stage Station, erected in 1878, was an important node in the system of wagon roads north of Lake City. The station, strategically located at the junction of routes linking Lake City with Sapinero and Gunnison, was a base for Charley Johnson's freight service, and a layover for travelers and other freight haulers. Nathan C. Carr and sons purchased the station in 1890 and converted it into a productive ranch. Now known as the Carr Ranch, the station became headquarters and residence to the Carr family's sawmill and ranching operation, generating lumber, hay, cattle, and horses for the local market through the 1950's. The station's three core buildings, the residential cabin, the saloon, and another smaller cabin are good examples of stage station architecture on Colorado's mining frontier. Although the buildings were inhabited for decades after 1889, few substantial changes were made, preserving original appearance, construction, and workmanship. The ranch complex also included a cemetery for members of the Carr family. The stage station's original cabins stand intact, but without roofs, and have changed little since construction. The site was acquired from the Carr family by the BLM in 1962.

The site is regularly visited by heritage tourism enthusiasts and its central location just off Hwy 149 between Gunnison and Lake City, makes it an easy side trip for visitors heading to and from the Alpine Loop Scenic Byway. The site features an interpretive panel that was created in 1998 with the assistance of members of the Carr Family. HSAs of these structures will pave the way for long term preservation, management, and interpretive needs for the Johnson Stage Station. The final goals of this project are to have stabilized and interpreted structures that are not only safe for visitors to enter and tour but that will be able to withstand many harsh winters in the future.



Carr Ranch today.

National Programmatic Agreement Implementation and State Protocol Revisions

- Colorado is consulting with the SHPO on the Handbook revision and addendums regarding the Fluid Minerals program and the Range program.

NHPA Section 106 Compliance

- Historic contexts and NRHP nominations are being completed in 2016 for the Denver & Rio Grande Western Railway and Uintah Railroad as mitigation for the Enterprise WEP II pipeline.

Stabilization, rehabilitation, and other preservation activities.

- Jagiellonian University's Sand Canyon-Castle Rock Community Archaeological Project: continued for a sixth year. Project director Dr. Radoslaw Palonka travelled with twelve graduate and undergraduate archaeological students from Krakow, Poland to continue digital documentation of pueblo architecture.
- Haystack Cave is listed on the Colorado State Register of Historic Properties and includes a variety of rare fossil remains of now extinct animals, including those of an American Cheetah and an extinct species of horse. A new gate was installed in partnership between the Gunnison Field Office and the Colorado Division of Reclamation and Mine Safety.



Identification, recordation, and evaluation of heritage resources.

- Dominguez Archaeological Research Group completed Section 110 surveys in the Grand Junction Field Office including a project focused on Ute Trails and another that resulted in the assessment of two additional wickiup sites as a part of the ongoing Colorado Wickiup Project initiated in 2002.
- Now in its fourth year, the Red Canyon Survey is a cooperative effort between the Colorado Archaeological Society (Chipeta Chapter) and the BLM. To date, 14 sites have been recorded, including two Paleoindian kill sites along major game trails.
- The historic Rambo family homestead located in Little Dominguez Canyon was documented. The homestead was sold to the BLM in 1988 by Billyie Rambo, who continued to live in the original cabin with his tribe of goats under a life lease agreement until his death in 2015. The homestead is now part of the Rambo/Little Dominguez Heritage Area within the Dominguez Canyon Wilderness.



Rambo Homestead in Little Dominguez Canyon.

Monitoring and site stewardship

- **CANM Cultural Site Stewardship Program (MSSP)** monitored 71 prehistoric cultural sites (Ancestral Puebloan), 2 historic sites (one homestead and one unknown Anglo or Navajo structure), and 2 dual-component sites (historic and Ancestral Pueblo). The program includes forty-seven site stewards that contributed approximately 606 hours of time.
- The Uncompahgre Field Office and the Gunnison Gorge NCA has a robust site stewardship program in place, managed jointly by the BLM and the Colorado Archaeological Society, Chipeta Chapter. Currently there are forty one volunteer site stewards, of which fifteen are active in monitoring four individual sites.
- The GJFO site steward program monitored four sites. Site stewards from the Grand Junction chapter of the Colorado Archaeological will likely result in more volunteer participation in cultural resource projects in the coming year.
- BLM archaeologists monitored fifteen sites throughout the McInnis Canyon NCA.



Monitoring rock art in the NCA.

- Monitors worked in the Black Ridge Canyons Wilderness Area investigating three historic cabins, two of which are old shepherding line shacks, a 600 year old site with standing wood structures, and a site with a woven fragment (likely from a basket or sandal) – a rare find in this area!
- Over half of the monitoring in the Dominguez Escalante NCA (nine of 15 sites) focused on Little Dominguez Canyon within the Dominguez Canyon Wilderness.

Research, field schools, and data recovery projects

- Colorado Mesa University field school (BPS # 1390) began planning for a 2017 field school and began work on an educational video regarding cultural resources in the area, cultural resource laws, and cultural sensitivity training.
- The Royal Gorge Field Office, in partnership with PaleoCultural Resource Group, initiated a research project on the Venado Enojado site, a prehistoric campsite dating between 3240 and 1860 BP that contains the only known buried pit house in the Arkansas River Valley.

Notable planning accomplishments for heritage resources.

- The Royal Gorge Field Office is presently preparing three separate, large-scale planning documents, including the Eastern Colorado Resource Management Plan, an update to the Arkansas Headwaters Recreation Area River Management Plan, and the Browns Canyon National Monument management plan.

Native American Graves Protection and Repatriation Act (NAGPRA) activities.

- The Gunnison Gorge NCA conducted one NAGPRA consultation in 2015 concerning the reburial of a single individual recovered during the excavation of Eagle Rock Shelter, and repatriated in 2015 to the Ute Mountain Ute THPO. Reburial of the individual was completed in September 2015.

Paleontological resources management

- The Gunnison Gorge NCA is continuing an ongoing association with Dr. Martin Lockley of Denver, searching for dinosaur track ways. They have located and recorded several hundred Cretaceous age tracks and trackways in the area.
- The White River Field Office hosted a paleontological field school in partnership with Colorado Northwest Community College (CNCC). Students from CNCC's Craig campus their CNCC instructors and some researchers from North Carolina spent two weeks in the field excavating a Hadrosaur (duckbilled) dinosaur in the Douglas Creek area.

Heritage Education, Interpretation, Outreach, and Tourism



BLM staff and kids enjoy a moment's rest in the cool shade of the Mica Mine.

- Gunnison Gorge NCA published a newspaper article, a radio interview was given and four public presentations have been made, all concerning Eagle Rock Shelter and the Cultural History of the Gunnison Gorge, directly reaching over 500 people. In addition, a journal article about the dinosaur trackway studies was published (see above). Grand Junction Field Office reached approximately 1,501 individuals through community programs and presentations such as the Archaeology/Paleontology Kids Camps, educational kits used by teachers in the classroom, a fieldtrip with the Grand Junction Chapter of the Colorado Archaeological Society meeting, and guided tours at the Ute Learning Garden.
- Little Snake Field Office partnered with the Vermillion Creek Chapter of the Colorado Archaeological Society to make a “Discovery Chest” to assist local teachers instill in their students an interest in the life of native peoples and a sense of appreciation and stewardship for archaeological sites on public land. A junior high school in Baggs, Wyoming borrowed the chest and an elementary school in Maybell, Colorado has made arrangements to borrow it in the future.



Inside the Discovery Chest.

- McInnis Canyons NCA continued its popular archaeology and paleontology kids camps which engaged 30 third-through-fifth graders over three days by using CA collections at both the Museum of the West and the Dinosaur Journey Museum.
- McInnis Canyons NCA, in partnership with Colorado Canyons Association, sponsored Nature Knowledge Days for fourth graders. Over three days, 660 kids and 58 adults participated in the scavenger hunt, where they learned about the

past culture groups who lived in the area and how those native people used and benefited from natural resources such as plants and animals.

- McInnis Canyons NCA sponsored a Schools and Outdoor Learning Environments (SOLE) Family Nature Night utilizing the BLM archaeological resources kit to teach 65 children and 40 parents about the area's prehistoric peoples and cultures.
- The White River Field Office enhanced five archaeological sites along the East Four Mile interpretive site which entailed rerouting and contouring the trail, re-fencing the interpretive area, and construction of a wooden bridge over the creek.
- Dominguez Escalante NCA reached approximately 224 individuals with interpretive events. One outing included a guided interpretive hike in Big Dominguez Canyon with a local chapter of the Humanists Doing Good, a local volunteerism group.