

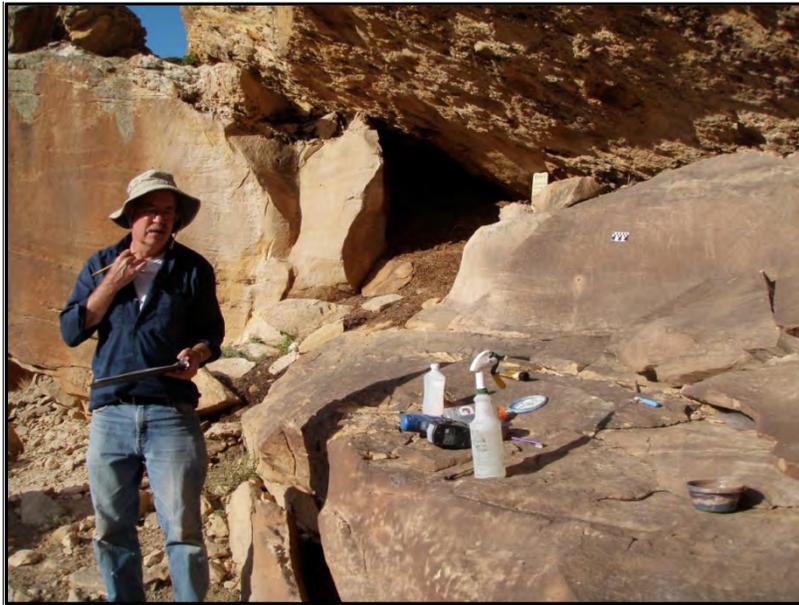
In response to IM No. 2011-164, BLM Wyoming provides the following report of activities within the Cultural Heritage program.

Various Projects Highlight the Fragile Nature of Rock Art

On August 25, 2011, the Visitors' Center at Legend Rock Petroglyph State Historic Site was opened to the public. This new building contains interpretive panels about the rock art found nearby and is a result of the collaboration between many partners, including the BLM Worland Field Office and Wyoming State Parks. Approximately 55 people attended the Grand Opening, including representatives from the Eastern Shoshone and Northern Arapaho Tribes, and Senator John Barrasso of Wyoming. Below is a picture showing the installation of exhibits at the center.



In the spring of 2009, a concerned member of the public informed the BLM Cody Field Office of vandalism to a Protohistoric Petroglyph/Pictograph site he frequented. Thanks to diligent BLM Law Enforcement Officers, the perpetrators were identified. A pre-trial diversion resulted in their funding Dr. Johannes Loubser of Stratum Unlimited to professionally restore and camouflage the damage at the Kinney-Cowley Rock Art site, 48BH3987. Not only was the site documented and remediated, but the informant has since joined the Wyoming Site Stewardship Program, and now actively monitors this valuable resource.



Dr. Jannie Loubser working on the Kinney-Cowley Rock Art site restoration

Dr. Loubser also worked in the Lander Field Office at the Castle Gardens Rock Art Site to remove and camouflage graffiti there. He treated over 100 rock surfaces and removed damage left by vandals over the past several decades.

Castle Gardens has been a popular site to visit by local residents for over 100 years. Early on it was recognized for its distinctive style of shield motifs, and was listed on the National Register of Historic Places in 1969. BLM first developed the site in the late 1960s with an access road, parking lot, vault toilet, picnic tables, and fences around the six main rock art panels. Unfortunately, greater public access and little interpretation led to increased vandalism. Accumulated graffiti became a distraction to visitors, taking away from the incredible shields and other figures, and giving the site an uncared-for look. The rock art conservator's spectacular work now makes it possible for visitors to focus on the rock art itself, enjoy the setting, and ponder the meanings of the petroglyphs.

Below are pictures showing a panel of shields before and after treatment. The majority of the latex-like materials were removed and the remaining material was camouflaged with acrylic paint.



The BLM Newcastle Field Office completed a two week Passport in Time project designed to carry volunteers through the entire process of completing photogrammetric 3D models of rock art. Tom Noble and Neffra Matthews from the National Operations Center assisted with conducting the PIT project. The first week was devoted to collecting photogrammetric images of petroglyph panels at Whoopup Canyon Petroglyph ACEC, using both standard photogrammetry as well as the faster process of programming a Gigapan to take a series of overlapping photographs in a matter of a few minutes. Gigapan photographs were especially useful for very large panels and panels that were too high to comfortably photograph. Experimentation with reflective transformance imaging (RTI) also occurred. This process captures light reflections from all directions to show up details in petroglyphs.

At the beginning of the second week on the project a lightning-caused wildfire broke out in the Whoopup Canyon ACEC. This was the second wildfire to damage these world class petroglyphs and the cumulative damage is discouraging. Most of the petroglyph panels were damaged by the fire. The most widespread damage was ash deposits. We learned following the 2001 fire that ash bonds with the silica glaze and quartz grains in the sandstone and acts to deteriorate the sandstone substrate. A number of panels also were spalled because of heavy burning of trees growing close to the panels. The fire also killed lichen growing on the panels. As the lichen falls off it will exfoliate the rock, leaving damaged areas. Several panels that have glyphs at ground level (where panels have been partially buried under soil over the years) were damaged by burned grasses. A photograph below shows that trees near panels were heavily burned and

heat from the fire removed large spalls from nearby rocks, damaged the panel sandstone and deposited ash on panels.

The volunteers provided 768 hours of time to the project and learned a valuable lesson regarding using the photogrammetric tools as a preservation technique to protect against future fires, weathering, and damage by visitors. Panels that were prepared for photography the week before by removing nearby shrubs, branches, and tall grasses obstructing the photography had less fire damage than petroglyphs that had burnable vegetation close to the panels. High resolution photography will continue as NFO works to stabilize the damage by the fire and fire suppression.



### **Interpretation and Protection Go Hand-in-Hand**

Signs interpreting an intact segment of the Overland Trail were put in place adjacent to Sage Elementary School in Rock Springs. The signs were the result of a cooperative effort between the BLM, the Oregon-California Trails Association (OCTA), and Sweetwater County School District #1. A sign dedication was held at the conclusion of the OCTA national convention in Rock Springs this August. Approximately 30 people attended the dedication and ribbon cutting.

A segment of the Overland Trail passes south of the elementary school. The segment was fenced to protect the segment and is an excellent opportunity for the K-4th graders to learn about life on the trail.

A walkway from the street to the signs will be put in place on September 24 as a Rock Springs BLM Public Lands Day project.



This photograph shows the ribbon cutting by Sweetwater County School District Superintendent Paul Grube, OCTA President Duane Iles, OCTA Director Fern Linton and BLM Rock Springs Field Manager Lance Porter.



This photograph shows the interpretive signs with Sage Elementary School in the background. The Overland Trail lies between the signs and the fence and runs from right to left. A Braille sign will be installed on the middle panel in September.

Over the past year, BLM Lander Field Office has developed several interpretive panels about Miner's Delight, a BLM-managed ghost town in central Wyoming. The town was the site of a gold rush community built on the promise of easy riches after gold was discovered there in 1868.

With the signs printed, the field office recently hosted a work session with Conservation Outdoor Recreation Education (CORE) at Miner's Delight to install a large interpretive kiosk at the town site entrance and seven smaller panels throughout the town. A group of 14 youth volunteers worked for two days digging holes, placing the kiosk and sign holders, and eventually attaching the interpretive panels. These young people provided 224 volunteer hours to BLM.

Together the panels tell the tale of how the town was established, how it rose in importance in the state of Wyoming, and how it was eventually abandoned for lack of profitability. The signs invite visitors to explore a true ghost town by peering into abandoned cabins, reading tales about the local saloon, and seeing the remains of the stamp mill where hard rock ore was processed. With the help of the youth volunteers, BLM was able bring their interpretive vision for Miner's Delight to life. The photograph below shows the CORE volunteers in front of the newly installed interpretive kiosk.



#### Additional Volunteer Experiences Protect Resources

Seven volunteers from five states came to Outlaw Campground in July 2011, to participate in the Buffalo Field Office's second Passport in Time (PIT) project. Volunteers contributed a total of 264 hours to completing site condition reports, completely re-recording previously recorded sites, investigating site leads, and surveying and recording for new sites in the Middle Fork Recreation Area.

Seven new sites were discovered and recorded and eight previously recorded sites were updated using GPS units. The week before the 2011 PIT project, new graffiti was discovered at the BFO's only interpretive site, the Sweem-Taylor rock shelter. One set of initials were scratched into the rock surface and then filled in with a black sharpie and several names were written with the black sharpie. The 2011 volunteers photographed and documented the vandalism for BLM's investigation.



**2011 PIT Volunteers excavating a shovel test at a prehistoric open camp site.**

This significant volunteer effort will allow the BLM to begin work on a management plan for the important cultural resources of this area.



**Bridger Antelope Trap Inventory by the Wyoming Association of Professional Archaeologists**

The Kemmerer Field Office hosted a volunteer project at the Bridger Antelope Trap, an early historic hunting surround site located about 25 miles south of Kemmerer. Thirty-five volunteers

from the Wyoming Association of Professional Archaeologists, Central Wyoming College and the Ute Tribe helped complete an intensive on-the-ground inventory of the trap site. The trap is composed of the remnants of a juniper fence and wings used to haze pronghorn antelope into a fenced enclosure, where the animals were dispatched. The inventory of 50 acres resulted in the collection of about a dozen projectile points and fragments from within and around the trap fence, evidence that the animals were killed with bows and arrows as well as larger darts launched from spear-throwers. This information will be integrated with the results of a dendrochronology (tree ring) study designed to determine the trap's age, and documented in a report that will be completed in 2011. The four year dendrochronology study is in its final year of analysis at the Biogeography and Dendrochronology Laboratory at Indiana State University.

#### National Programmatic Agreement implementation

During FY11, the Wyoming State Office continued its monthly meetings with the Wyoming State Historic Preservation Office staff. In addition, the annual protocol meeting was held via video-conference in April, and the Wyoming SHPO gave a presentation at the expanded Wyoming Management Team meeting in May. The Deputy Preservation Officer and SHPO staff conducted two protocol orientations for new staff. In addition, agreement documents were completed on four projects, requiring a close working relationship with the Wyoming SHPO, project proponents, interested parties and tribes.

#### Native American coordination and consultation

The Deputy Preservation Officers from Wyoming and Montana, representatives from Wyoming's High Plains District and Montana's Eastern Montana/Dakotas District met with nine tribes from Montana and South Dakota in November 2010 and May 2011 in hopes of working out a consultation agreement. Since then project-related work has put these negotiations on hold, but this effort is expected to continue in FY12.

Several field offices conducted project-specific tribal consultation during the year and worked with tribes during negotiations for agreement documents. Two consultations have been for projects near sacred sites: the Old Woman Creek Hills APD and a limestone gravel quarry near the base of Inyan Kara, a highly significant site in the Black Hills. Tribal consultations are ongoing for these projects.

Managers and archaeologists have taken advantage of the tribal consultation training on the Knowledge Resource Center. The High Plains District worked with the DPO during a leadership team meeting, and the management team will be reviewing this information later this year.

### Museum collections management/NAGPRA compliance

During FY11, BLM funded a re-inventory of NAGPRA collections held at the University of Wyoming's Human Remains Repository. The initial NAGPRA inventory was conducted in 1995. The new inventory and report are expected in FY12.

The Buffalo, Cody, Lander, and Worland Field Offices curated collections with the University of Wyoming's Archaeological Repository.

Funding was provided to UWAR for the continuation of the box-by-box inventory. In addition, UWAR completed over 25 new accessions into the repository from consulting archaeologists for projects located on lands administered by Wyoming BLM.

There were three NAGPRA discoveries during the year in the Cody, Kemmerer and Rawlins Field Offices. Tribal consultation is ongoing in all cases.

A Notice of Inventory Completion was published this fiscal year for the Casper Field Office's Huntley and Table Mountain NAGPRA collections. Notification to tribes of this publication has not yet occurred.

### Planning accomplishments

Four Class I overviews were completed in Wyoming. The Buffalo, Lander and Rawlins Resource Management Plan Class I's were accepted. And a Class I was written for upcoming work associated with the EnCana Normally Pressured Lance Study Area in both Rock Springs and Pinedale Field Offices.

### Resource Protection projects

The JO Ranch Rural Historic Landscape was listed on the National Register of Historic Places (NRHP). The property is a ranch complex consisting of 17 contributing structures, sites or objects within 353 acres in the Rawlins Field Office. Acquired in 2004, the BLM has fenced and protected the primary ranch buildings associated with Spanish system sheep ranching in the 19<sup>th</sup> Century. It is associated with events that made a significant contribution to the broad patterns of regional history. A National Public Lands Day event at the site cleared brush, removed litter, constructed fencing and erected signs.

In addition, the Carbon Cemetery was listed on the NRHP. It too is located in the Rawlins Field Office. Although only a small portion of the site is on BLM administered land, the BLM was pleased to assist the Carbon Cemetery Association with listing the property. The town of Carbon was an early coal-mining town in Wyoming and the cemetery indicates that its inhabitants were from places such as Finland, Sweden, Norway, Denmark, the British Isles and Germany.

The Pinedale Field Office erected signs for the Lander Road project described last fiscal year.

The BLM Cody Field Office initiated the construction of a series of protective fencing for cabins within the (to be nominated) Little Mountain Grazing Rural Historic Landscape. Three cabins were fenced with buck and pole to minimize impacts from livestock. Besides a National Register Landscape nomination, the field office hopes to erect a kiosk interpreting the stories behind the scenic cabins. The cabin pictured below was part of the Steven Gervay homestead. Mr. Gervay perished in a snow storm during a winter deer hunt less than a mile from his cabin, where his pregnant wife was left to endure the hardship and eventually flee the mountain on her own. Rosenberg Historical Consultants have made contact with an heir of the Gervays and have prepared an article accepted for publication in the Wyoming Annuals.



Gervay Homestead #2      48BH3943 Fencing      View: N      7-Jul-2011      Kierson Crume

### Outreach and education

Several field office archaeologists conducted public and school presentations this year, participated in science and career fairs. They also worked on Take It Outside projects, environmental education kits, and a “How To Teach Topos” learning tool. The rock art exhibit created in 2010 continues to be used in venues around the state. The Jonah Interagency Office mitigation funds produced a “Jonah Archaeology” brochure and booklet for distribution at Pinedale’s Museum of the Mountain Man.

FY2011 marked the third year of the BLM Cody Field Office’s Take It Outside “Living Landscapes” program. The environmental education program is funded through the President’s Youth Initiative. Together with our non-profit partner, the Greybull River Sustainable Landscape Ecology (GRSLE), we hope to show kids that the same observational techniques used to document an archaeological resource can help gain a better understanding of the environment

and how humans, animals, ants, plants, and dirt all fit together. We held sessions with the Park County Recreation Center 'Kidz on the Move' program, the Boys & Girls Club, Park County Chapter, and the summer school of Rocky Mountain High School from Cowley, Wyoming.



This photograph shows Dr. Larry Todd explaining to the kids about faunal analysis and what you can learn from looking at animal bones. View: SW 28-Jul-2011 Photographer: Karina Black

#### Law Enforcement activities

No response was received from the Special Agent regarding the Section VI (Enforcement) for the Attachment 1 Questionnaire. However, two field offices reported incidents. The Buffalo Field Office indicated that the Sweem-Taylor rockshelter was vandalized in July and their ranger continues to work the case. Worland Field Office reported 2 incidents: one was vandalism at the Legend Rock site and one was an OHV trespass involving a cultural resource. No LOOT forms were submitted by any archaeologist or ranger.