

FORTY DAYS IN THE WILDERNESS: 2015 PARK COUNTY HISTORIC PRESERVATION COMMISSION ARCHAEOLOGICAL INVENTORY AND ASSESSMENT ON THE SHOSHONE NATIONAL FOREST, WYOMING

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ABSTRACT Portions of the Washakie Wilderness, Shoshone National Forest, Wyoming are among the most remote in the continental US. A partnership between the Park County Historic Preservation Commission (PCHPC) and the Shoshone National Forest undertakes basic inventory for these difficult to access back country areas, and to provide rapid assessment as part of post-fire evaluations. In 2015, using a variety of funding sources, PCHPC-led teams spent 45 field days on the Washakie Wilderness conducting site testing, historic structure architectural assessment, post-fire inventory, archaeological site probability model evaluation, and high elevation/ice patch investigations. Among the material over 40 sites examined (>30,000 items recorded in the less than 200 ha inventoried) are artifacts ranging from Paleoindian (Cody Complex), to Protohistoric age. Although considered remote and little used today, the montane and alpine settings of the Greater Yellowstone Ecosystem have a complex archaeological record requiring integrated research and management.

NRHP EVALUATIONS: Late Prehistoric and Protohistoric Campsites

21 June-2 July. Funding provided by the Wyoming SHPO CLG grants program allowed us to spend field sessions doing limited testing at several high elevation (~2600m) Proto-Historic and Historic Period sites that were exposed by the 2006 Little Venus Fire. Testing of these sites began in 2014, and the 2015 season allowed us to expand excavations at the site with the most abundant faunal remains (48PA3128; see Wilson and Todd 2015), which in 2014 yielded an extensively processed bone assemblage (including several fetal big horn sheep) with ceramics and stone tools. In addition, we conducted a systematic metal detector survey of large portions of site 48PA3135, which contains a diverse surface assemblage of stone and metal artifacts, glass trade beads, and ceramics associated with distinct hearth and stone circle features. This group of sites is being considered for a NRHP district nomination.

Since 2002, inventory work along the Greybull River has documented a rich array of archaeological sites. After the 2006 fire, a group of five sites containing ceramics, steatite vessel fragments, or Euroamerican trade goods associated with features and faunal remains were identified (Todd 2015).

Each of the sites we've tested has indications of multiple Late Prehistoric and later occupations. Although we have been able to obtain radiocarbon dates on butchered bone from four of these sites, given the vagaries of the calibration curve for this time period, we still cannot fully assess if entry dates for Euroamerican items began in the late 1600s, late 1700s, or early 1800s. In an attempt to refine these dates, we are exploring possibilities of linking isotope patterns from the local tree ring chronology with those in the bone samples being dates.

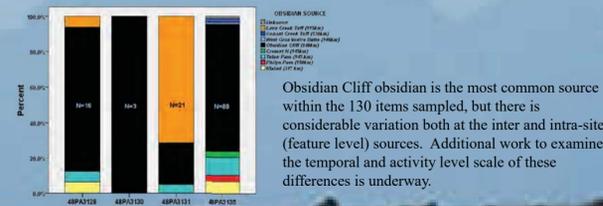
Two of these sites have glass trade beads.

Other unusual items include this complete, cast iron Dutch oven found at the base of tree, apparently cached at the site.

The heavily processed faunal remains include several specimens of fetal big horn sheep, indicating at least some late winter/early spring use of the high county (see Wilson and Todd 2015).

In addition to subsurface testing and surface artifact documentation, we also increased our samples from trees directly associated with this site cluster. Samples included multiple cores for a variety of isotope and dendroecological studies.

Activity specific areas at 48PA3135 include both a metal working location, and a hearth with a variety of unusual incised and non-vessel ceramics.

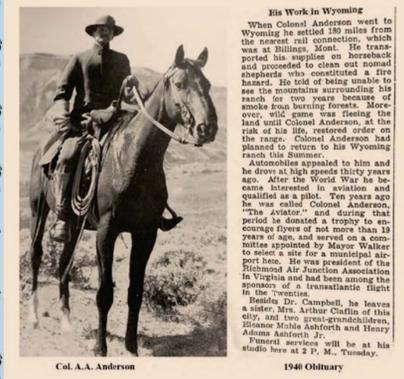


Obsidian Cliff obsidian is the most common source within the 130 items sampled, but there is considerable variation both at the inter- and intra-site (feature level) sources. Additional work to examine the temporal and activity level scale of these differences is underway.

References Cited: Burnett et al. 2015, Milton et al. 2015, Wilson and Todd 2015

ARCHITECTURAL ASSESSMENT: Anderson Lodge

12-23 July. With funding from an Alliance for Historic Wyoming, Historic Architectural Assessment Fund (HAAF), our second field session emphasized documenting current condition and developing a plan for work needed to preserve the National Register listed Anderson Lodge (48PA250), which is listed as eligible under criteria A, B, and C. HAAF funds allowed architect Lesley Gilmore and structural engineer Samantha L. Fox to spend time at both the Lodge and near-by cabin. Since, other than lack of maintenance, one of the key issues facing preservation of the structure is water move in and across the slope on which it is constructed, soil scientist (and PCHPC commission member) Kent Houston undertook documentation of sediments permeability and soil properties. Our crew also documented a prehistoric component at 48PA250 and at several other prehistoric sites in adjacent drainages.



"The Anderson Lodge site (48PA250)...meets three criteria of National Register eligibility. Criterion A)...the national conservation movement and development of the USDA Forest Service governmental agency, from 1891 to 1907. Criterion B)... A.A. Anderson, instrumental in development and management of the first national Forest Reserves, from 1901 to 1906, and an artist and rancher of local importance. Criterion C)...the unique, two story, multi-room, log lodge built in 1890 and used as artist's studio, ranch outbuilding, and Forest (Reserve) administrative site" (National Register Nomination).

Although stabilization efforts were begun in 1993-1994, work at the Lodge was halted before all needed activities could be completed and over the last 25 years it has suffered neglect and lack of maintenance. PCHPC is working to develop a series of partnerships to assist in preservation of the structures at 48PA250.

A key problem in stabilization at Anderson Lodge is caused by its location on an oft water-saturated slope, that is creeping downhill. 2015 work included excavation of soil pit to assess sediment and water percolation to aid in developing a remediation plan.

While in the Anderson Lodge area, we also expanded our prehistoric site inventory with survey of 62 ha, documentation of 4862 surface artifacts, and testing of a near-by high elevation Late Prehistoric ceramic site.

POST-FIRE INVENTORY: Hardluck Fire

26 July-7 August. With funding from the Wyoming SHPO CLG grant program, we completed our second field season of post-fire inventory in areas burned in the 2006 Hardluck fire. The 2015 inventory continued work in a high elevation basin (~3000m), visited immediately after the fire in 2013 and again with a field crew of 10 days in 2014. This area is characterized by very high site density, with near exclusive use of locally available petrified wood. In addition to surface artifact documentation, in 2015 we also conducted limited test excavations at three sites. A second year's data were also collected on three transects to monitor post-fire sediment movement.

In 2013, the Hardluck fire burned over 10,000 ha in remote portions of the Washakie Wilderness. In 2014, funded largely through the Forest Service BAER program, we inventoried several of the areas within the burn identified by our site probability model (Burnett and Todd 2014, 2015). One of the areas examined, a high elevation basin, clearly merited additional work. In 2015 we returned and although were only able to inventory 19 ha, we recorded 16,193 pieces of chipped stone. This artifact density of 852 pieces of chipped stone per survey hectare is one of highest we've encountered.

As part of our 2015 project, an updated site probability model covering the full Shoshone National Forest was developed (Burnett et al. 2015).

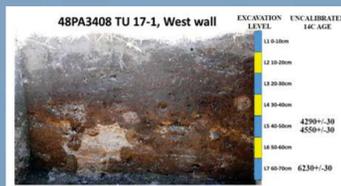


Immediately after the fire in 2013, we laid out several 25m long transects to monitor sediment movement on two burned sites.

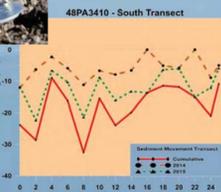
In 2014, and again in 2015, we recorded sediment depth change at a series of nail head control points. This plot of sediment movement in one transect show a mean loss of 18 mm of sediment in two years after the fire. Milton et al. (2015) examine artifact movement across these surfaces.



We have been able to use dendroecology to investigate recent fire histories, but at our excavations at 48PA3408, high elevation archaeological site can provide a longer term perspective. Here, a distinct oxidized sediment zone associated with abundant charcoal (L5) had two dates over 4000 years. Also of interest is chipped stone at 70 cm below surface, in stratigraphic context at slightly over 3000 m elevation.



One of the key factors relevant to documentation of post-fire landscapes is sediment loss through erosion and deflation, which increases artifact visibility.



In addition to intensive surface artifact documentation with multiple two-person teams using Trimble GeoXT and Geo7 receivers, during the 2015 season we conducted limited subsurface testing at several sites within the burn perimeter.

ALPINE LANDSCAPE DOCUMENTATION: Ice Patches and Lithic Scatters

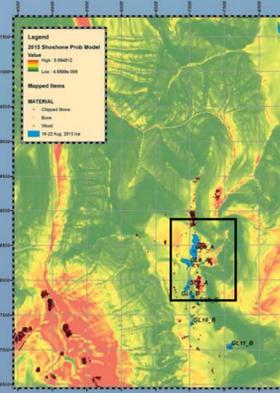
16-26 August. In 2014, we were able to spend only a limited time in the higher elevation (3400+ m) portions of our project area, but both the limited reconnaissance and our site probability model suggested that more intensive examination was needed. With funds from a Wyoming SHPO CLG grant, and in collaboration of Robert Kelly (University of Wyoming) and Rachel Reekin (Cambridge) our team was able to investigate a series of ice patches identified by Craig Lee as having high potential for perishable materials and to begin documentation of the adjacent surface archaeology. Of particular interest were the surprising number and diversity of Paleoindian projectile points. Also surprising was the density and diversity of stone tools and debitage associated with an array of snow and ice patch features. We plan to return to this area next year to continue alpine inventory, surface documentation, and perhaps testing



In 2014, limited high elevation (>3400m) inventory in areas near ice patches resulted in two sites being recorded with Paleoindian artifacts (c and d). Although Archaic points were more common during the 2015 fieldwork, two additional early points were recorded: a) a complete Alberta, and b) a non-diagnostic mid-section.



Field camp in alpine setting has an interesting set of logistic issues.



The potential of Rocky Mountain ice patches to contain remarkable perishable items is becoming well documented, and like the post-fire work presents us with a record in urgent need of investigation.

As part of the 2014 PCHPC Hardluck post-fire project, Dr. Robert Kelly and Rachel Reekin visited several ice patches identified by Dr. Craig Lee's perishable material preservation potential model. 2015 was a high melt year for ice patches and fieldwork designed to record chipped stone had the opportunity to revisit the same locations in both early and late August. Not only were well-preserved organic artifacts recovered from the much smaller ice patches, the quantity and diversity of associated chipped stone was also unexpected. During our 10-day session, we recorded information on 5211 items at a mean elevation of 3384m (11,102 feet). These included 32 projectile points, or point fragments. Of the points with diagnostic features, 4 are Paleoindian, 4 Early Archaic, 1 Middle Archaic, 6 Late Archaic, and 4 Late Prehistoric. This attests to the long-term role that these high elevation areas played in past landuse systems.

Plans for 2016 include a closer integration of our general site probability model (Burnett et al. 2015), which provides a framework of targeting areas with greatest likelihood of having sites, with Lee's Ice Patch model, which ranks ice patches in terms of their likelihood of yielding preserved organic material. We anticipate spending an additional 20 field days in this area next summer.

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Poster available at:
http://www.grsle.org/Fieldwork/ToddEtAlPlains_2015.pdf
or contact letodd@colostate.edu
or with this QR code:

