



**PCRG**  
*PaleoCultural Research Group*

**2014 Annual Report**



# American Altiplano: Where the San Juans Meet the Sky



A vast expanse of alpine tundra blankets the San Juan Mountains, but the character of that landscape varies dramatically from west to east. The deep glaciated valleys and rocky pinnacles of the western section give way in the east to expansive mesas and broad slopes creased by tumbling tributaries of the Rio Grande. In 2014, this rolling eastern grassland was the site of PCRG's second foray into the San Juan high country.

The Snow Mesa Archaeological Project builds on PCRG's 2010 work at the Uncompahgre Cirque site, a lithic quarry workshop located at 3,840 m on the eastern flank of Uncompahgre Peak, one of 54 summits in Colorado above 4,267 m. Data from Uncompahgre Cirque and from prior survey and excavation projects above timberline suggest that American Indian use of the high San Juans occurred primarily during the Archaic. Artifact assemblages representing a broad spectrum of activities—including hide working, animal butchery, plant processing, and lithic raw material procurement—are

common, suggesting that alpine sites primarily represent small-group, short-term foraging camps, rather than special use localities occupied by dedicated task groups.

To further evaluate these chronological and functional propositions, PCRG tested two sites in 2014. One, known as the Snow Mesa site, is located in the center of a broad plateau at 3,740 m and consists of a sprawling artifact scatter made up of thousands of flakes and chipped stone tools. At the other site, known as Hanging Valley and located just off the mesa at 3,612 m, numerous hearths associated with a modest assemblage of flakes and tools are exposed in a deep arroyo.

Using a Forest Service pack string to haul equipment to a base camp at timberline, a hardy crew of 12 PCRG staff and volunteers and Forest Service archaeologists braved wind, rain, and even snow during the week-long project in late August. PCRG Research Director Mark Mitchell and Rio Grande National Forest Heritage Program Manager Angie Krall led the effort, assisted by



**Top:** The southern arms of Snow Mesa; **Above:** Testing in progress at the Snow Mesa site (L-R: Rhen Hirsch, Daniel Michael, Elicia Abella, Bob Burns, and Robert Wunderlich).

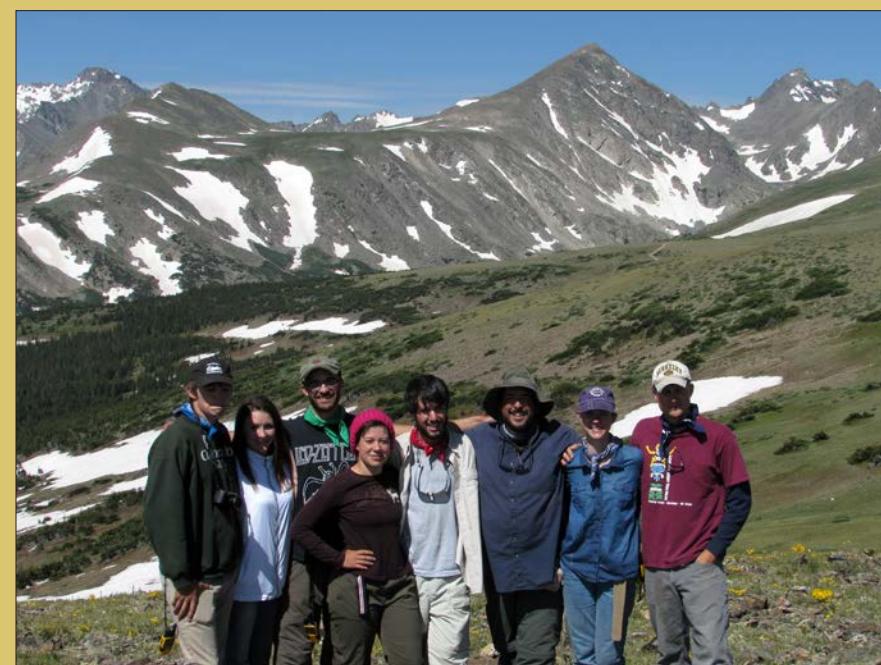
PCRG Archaeologist Robert Wunderlich and Forest Service Archaeologist Marcy Reiser. Crew members included PCRG volunteers Elicia Abella, Kevin Black, Bob Burns, Daniel Michael, Cathy Morin, and Alex Wesson and Rio Grande National Forest interns Margaret Smith and Rhen Hirsh.

Work at both sites yielded stratigraphic data suggestive of significant time depth. Radiocarbon dates are anticipated in early 2015 and analyses of flaking debris, stone tools, and macrofloral remains currently are underway. ■

# Filling the Void: Archaeology of Niwot Ridge

Beneath the shadows of the towering Indian Peaks sits Niwot Ridge, well-known to climate scientists and ecologists from across the globe but a relative blank spot on the map of Colorado Front Range archaeology. Jim Benedict, the baron of Southern Rocky Mountains archaeology, first worked on Niwot Ridge in the 1960s but he did not include it in any of his volumes or papers on Colorado mountain archaeology. In the summer of 2014, PCRG, along with faculty and students from Colorado State University, set out to fill the blank spot by coordinating two pedestrian survey sessions of Niwot Ridge.

Located in western Boulder County, Niwot Ridge reaches 3,745 m and is covered by a sea of alpine tundra interrupted by small pockets of krumholz. The area has been designated a UNESCO Biosphere Reserve, is part of the National Forest System, and is managed by the University of Colorado's Mountain Research Station, a division of the Institute for Arctic and Alpine Research (INSTAAR). The project was initiated to support a special-use permit application made by the University of Colorado. PCRG board member Craig Lee, also a Research Scientist with INSTAAR, helped coordinate the early phases of the project. The work was a joint effort by many groups, including PCRG, Colorado State University, the Forest Service, INSTAAR, and the University of Colorado's Mountain Research Station.



**Top:** PCRG volunteers surveying Niwot Ridge. (L-R: Peter Schlegel, Pete Gleichman, Katherine McComb, Kris Holien, and Tom Doerk).

**Left:** The CSU field school crew enjoying a bluebird day above timberline. (L-R: Cassidy Crawford, Dominique Kovalaski, Brady Nelson, Michelle Dinkel, Noah Benedict, Dr. Jason LaBelle, Christina Burch, and Lance Shockley)



Joined by seven enthusiastic field school students, CSU professor Jason LaBelle and graduate student Hallie Meeker led the first session in early July. Mark Mitchell, along with 19 PCRG staff and volunteers, led the second session in early September. The crews surveyed over 800 acres, spanning both sides of nearly the entire east-west trending ridge, as well as selected parcels at lower elevations in montane environments. We had the pleasure of using the wonderful accommodations provided by the Mountain Research Station—not often does everyone on the crew get to sleep in a warm bed and have a hot

shower every day! The accommodations were especially welcome as both crews dealt admirably with the wet, windy, and cold conditions that accompany high-altitude surveys.

Benedict began recording the archaeology on Niwot Ridge in the 1960s and continued documenting sites in the area through the 1980s while conducting long-term geologic research. PCRG member Pete Gleichman and his firm, Native Cultural Services, prepared a report in the mid-1990s documenting the archaeology within

(continued on page 10)

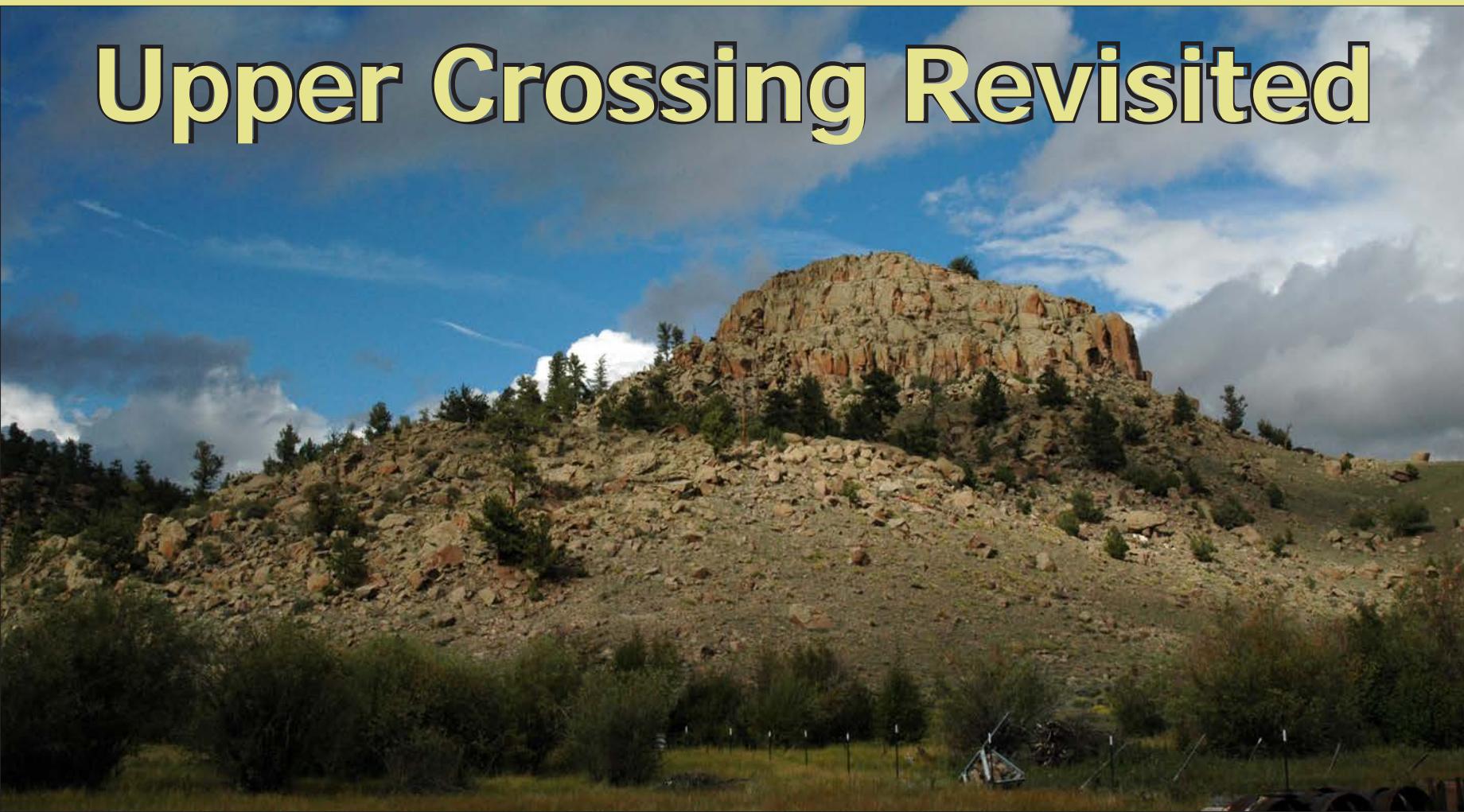
Clusters of stone enclosure sites occur irregularly throughout southern Colorado, but the concentration in the Saguache Creek valley is the largest. Within that cluster, the largest and best-preserved site is Upper Crossing, a major focus of PCRG research since 2009.

Though first visited by University of Denver archaeologist Etienne B. Renaud nearly 80 years ago, little was known about the site's age or occupation history when PCRG and the Bureau of Land Management began their long-term public archaeology program. The 2014 project was PCRG's fifth at the site. It also continued PCRG's productive relationship with the University of Colorado (CU), which first began in the mid-1990s at the Willow Bunker site on the Pawnee National Grassland. Five CU undergraduates enrolled in the Department of Anthropology's archaeology field school (Lora Cannon, Kirsten Jaqua, Jackson Lincoln, Shelby Magee, and Rob Reibold) participated in the Upper Crossing work, along with graduate teaching assistants Lindsay Johansson and Jen Deats. PCRG volunteers included Ben Bain, Chris Caseldine, Mona Charles, Sara Cullen, Scott Erler, Mary Ann Gabriel, Carla Hendrickson, Dan Jepson, Warren Nolan, Rin Porter, and Alex Wesson. BLM Staff Archaeologist Brian Fredericks and Forest Service Archaeologist Marcy Reiser, assisted by Forest Service interns Rhen Hirsch and Margaret Smith, rounded out the 23-person crew. Funding for the project was provided by a grant awarded to PCRG by History Colorado's State Historical Fund.

The emphasis in 2014 was on the enclosures' construction technology and on their age and occupation history. The field crew investigated four different enclosures, excavating a total of 10.5 m<sup>2</sup> and identifying seven hearth features.

Radiocarbon dates and analyses of stone tools and faunal and botanical remains eventually will add greatly to the results obtained in the field. However,

# Upper Crossing Revisited



the remarkable preservation of the site's enclosures permits a number of initial conclusions. The most striking—and most unexpected—finding is that the duration of the stone enclosure occupation was far longer than had previously been estimated. Each of the four enclosures studied was reoccupied repeatedly, possibly over a period of several centuries. In addition, each of the investigated enclosures exhibited a distinctive occupation history. It now appears that the cluster of enclosures represents a repeatedly occupied residential base camp regularly used by a small number of households over a long period, rather than a short-term seasonal aggregation site as was previously believed.

Another surprising finding of the 2014 fieldwork is that three of the four enclosures studied had been constructed over an earlier basin house that lacked a rock foundation. An eclectic assemblage of dart points is associated with these older basin houses, suggesting that the occupation of this part of the site may have begun during the Late Archaic, rather than the early Late Prehistoric. The observed feature superpositioning also suggests that a dramatic architectural transition, from lightly built brush structures to more massively built timber-frame structures, accompanied the Late Archaic-Late Prehistoric transition and the adoption of the bow and arrow. ■

**Top:** The Upper Crossing site seen from below. Excavation in 2014 occurred in Cluster 1, located on the bedrock bench in the center of the photo.  
**Left:** The 1 x 3-m excavation block in Enclosure 10.

**Right:** PCRG member Dan Jepson screening sediment from Enclosure 9, with CU undergraduate students Lora Cannon and Shelby Magee at left.

**On the Cover:** Enclosure 5 prior to excavation. (L-R: PCRG Research Director Mark Mitchell, CU graduate student and PCRG member Lindsay Johansson, and CU graduate student Jen Deats.)

## PCRG Receives NSF Grant for Heart River Research

The National Science Foundation has awarded PCRG a three-year, \$140,000 grant to study household activities and household diversity during the sixteenth-century peak of the Mandans' power and influence in the Heart River region. Mark Mitchell, PCRG Research Director, will lead the effort. Co-Principal Investigators are PCRG member Ken Kvamme (University of Arkansas) and Rinita Dalan (Minnesota State University-Moorhead). Additional partners include the State Historical Society of North Dakota, Colorado State University, and the University of Colorado. The project will feature two field sessions, one in 2015 and one in 2016. Both will occur at Chief Looking's Village, an earthlodge settlement located within the city limits of Bismarck, North Dakota.

A wave of transformative change, marked by increased population density, expanded long-distance trade and interaction, more frequent warfare, and economic intensification, swept through the Heart River region between A.D. 1400 and 1600. However, little currently is known about the social processes operating within individual communities. The project will study intra-community social interaction by comparing the private lives of families living in two distinctly different types of houses, one that at the time was recognized as local and another that was recognized as foreign. The primary aim is to understand the factors governing these families' architectural choices. Understanding why different households chose particular expressions of social or cultural difference will provide insight into the factors underpinning regional changes in demography, settlement, and economic practice.

The research team will work with the Bismarck Parks and Recreation District, which owns the site, to publicize the project and schedule public tours. During excavation, volunteer guides will lead public tours. The project will also work to broaden participation by American Indians in regional archaeological research.

## PCRG Researcher Receives Grants to Study Fur Trade Collections

History Colorado's State Historical Fund has awarded PCRG Research Affiliate Cody Newton a \$10,000 grant to study artifacts and faunal remains from Fort Vasquez,

the first fur trade post constructed along Colorado's Front Range between the North Platte and Arkansas rivers. Louis Vasquez and Andrew Sublette built the adobe stockade in the fall of 1835 to take in bison robes produced by Cheyennes and Arapahos. The collection holds the potential to address important research questions about how Plains Indians influenced the political economy of the frontier during the fur trade.

Newton has also received a \$2,500 grant from the U.S. Fish and Wildlife Service to study a collection from Fort Davy Crockett, a trading post located in Brown's Park on the Green River in northwestern Colorado. Brown's Park was a noted wintering location and trading center that attracted both American Indians and traders. Fort Davy Crockett was built in 1837 and abandoned in 1839.

The aim of both analyses is to offer a more comprehensive, native-centered history of the fur trade in Colorado. Data from Fort Vasquez and Fort Davy Crockett will be included in Newton's University of Colorado Ph.D. dissertation.

## PCRG Awarded State Historical Fund Grant to Build Online Research Tool

Using funds provided by History Colorado, six partner organizations, and two anonymous donors, PCRG will create an online platform for research, cultural resources management, and public education in Colorado archaeology. The website will incorporate new topical syntheses, legacy documents, raw data, and tools for professional and public collaboration. The project represents a first step toward revising the existing statewide context documents and will help the public better understand the preservation planning process.

In 1999, the Colorado Council of Professional Archaeologists (CCPA) published five books summarizing the state's archaeology. These peer-reviewed publications, known as the Colorado prehistoric contexts, are widely recognized as among the most comprehensive and valuable large-scale regional syntheses ever produced. Along with a statewide historical archaeology context that CCPA published in 2007, these books are crucial for defining research topics and identifying relevant datasets, for designing and evaluating survey and mitigation projects, for making sound National Register of Historic Places (NRHP) eligibility determinations, and for training students and professionals new to the region.

Fifteen years have passed since the prehistoric contexts were published and the community of professional archaeologists in Colorado now agrees that they need to be updated to incorporate the results of recent survey, excavation, and research projects.

Colorado's professional community also recognizes that the value of context updates will be maximized if they are integrated into a multi-functional digital environment, rather than printed in traditional book form. An online platform will enable incremental, targeted changes to context documents; will include critical supplementary materials, including raw datasets, photographs and maps, hard-to-find technical reports and theses, and field and lab manuals; and will incorporate interactive functionality, including basic search, hyperlinks, professional forums, and easy access to other online resources.

However, the digital and organizational infrastructure

needed to realize these benefits does not currently exist. This project will fill that gap. Work on the website will continue through 2016, with a beta-test phase and initial roll-out scheduled for spring 2016.

## PCRG Staff to Teach Colorado State University Archaeology Field School

Extending the successful partnership begun in 2014 for the Niwot Ridge project (see page 4), PCRG Research Director Mark Mitchell will teach the Colorado State University archaeology field school in 2015. The collaboration reflects a shared goal of building productive partnerships for public archaeology in the Plains and Rocky Mountains.

CSU undergraduate anthropology students will work  
(continued on page 10)

## New PCRG Publications

Johnston, Christopher M.  
2015 *2013 Archaeological Survey of the Indian Creek Drainage, San Isabel National Forest*. Research Contribution 96. [42 pp.]

Mitchell, Mark D.  
2015 *Archaeological Investigations During 2013 at the Pole Creek Stone Enclosures, Saguache County, Colorado*. Research Contribution 94. [62 pp.]

Mitchell, Mark D., and Christopher M. Johnston  
2014 *An Archaeological Assessment of the Stillwater Site, Garfield County, Colorado*. Research Contribution 93. [44 pp.]

Contribution 85. [234 pp.]  
Mitchell, Mark D.

2012 *High-Altitude Archaeology in the Uncompahgre Wilderness: Archaeological Investigations During 2010 at the Uncompahgre Cirque Site, Hinsdale County, Colorado*. Research Contribution 87. [76 pp.]

Mitchell, Mark D. (editor, with 19 contributing authors)  
2012 *Agate Basin Archaeology at Beacon Island, North Dakota*. Research Contribution 86. [278 pp.]

Mitchell, Mark D. (editor, with 4 contributing authors)  
2012 *An Archaeological Assessment of the Upper Crossing Site, Saguache County, Colorado*. Research Contribution 88. Archaeological Investigations in the San Luis Valley 1. [112 pages]

Mitchell, Mark D. (editor, with 4 contributing authors)  
2008 *Archaeological and Geophysical Investigations During 2007 at Larson Village, Burleigh County, North Dakota*. Research Contribution 81. [104 pp.]

Mitchell, Mark D. (editor, with 9 contributing authors)  
2007 *Geophysical Survey and Test Excavation During 2006 at Larson Village, Burleigh County, North Dakota*. Research Contribution 80. [230 pp.]

## Recent Publications Still in Print

Mitchell, Mark D. (editor, with 8 contributing authors)  
2014 *Archaeological and Geophysical Investigations During 2012 at Fort Clark State Historic Site, Mercer County, North Dakota*. Research Contribution 90. [182 pp.]

Mitchell, Mark D. (editor, with 7 contributing authors)  
2013 *Archaeological, Geoarchaeological, and Geophysical Investigations During 2008 at Chief Looking's Village, Burleigh County, North Dakota*. Research

PCRG publications are distributed to members upon request and without charge.

alongside volunteers and professional consultants on two PCRG projects, one in Colorado and one in North Dakota. The first will take place at Blackfoot Cave, a multi-component archaeological site located on East Cherry Creek in eastern Douglas County, Colorado. The project will investigate a deeply-buried Late Paleoindian component. The fieldwork will also feature a geoarchaeological investigation designed to gather paleoenvironmental data.

The second project will take place at Chief Looking's Village in Bismarck, North Dakota (see page 8). There,

(*Niwot Ridge, continued from page 5*)

and around the Biosphere Reserve. However, the 2014 project is the first systematic survey of the property.

Eight previously recorded sites were re-visited and updated. Six of these are American Indian, one is Euroamerican, and one is of unknown cultural affiliation. Twelve new sites were documented, including six American Indian, five Euroamerican, and one multi-component. Six isolated finds were documented, including three with single projectile points, one isolated flake, and two Euroamerican artifact scatters.

One of the previously unrecorded historic-era sites we documented is known as Hill's Mill, a sawmill that operated in the early twentieth century. Jean Kindig, in her book *The Mountain Research Station: A Research Station with an Altitude* (2000, Regents of the University of Colorado), notes that some of the early buildings at the



A projectile point from the saddle on Niwot Ridge. ■

CSU students will work with undergraduates from Minnesota State University-Moorhead as well as PCRG volunteers. In addition to honing their excavation techniques, students from both universities will learn about the latest geophysical prospection methods.

During their final session, CSU field school students will conduct a survey project in the eastern foothills of the San Juan Mountains in south-central Colorado. During the session they will search for traces of John C. Fremont's ill-fated 1849 expedition as well as test a possible Agate Basin-age camp.

Research Station (some of which are still standing) used lumber from Hill's Mill. None of the structures at Hill's Mill remain standing, but many foundations, artifact scatters, and roads were noted.

Previous collections, along with collections from the 2014 fieldwork, show American Indian occupations spanning from the Late Paleoindian to the Late Prehistoric periods. Nearly all of these sites are on the leeward side of the ridge, on a north-south trending saddle that leads to an easy crossing over Niwot Ridge. The sites are all lithic scatters, consisting of flaking debris, chipped stone tools, and ground stone. In late September, PCRG monitored construction in this same area. One intact fire feature and the remains of at least one other feature were documented in a roughly 10-square meter area. Charcoal from one of these features has been submitted for radiocarbon dating.

One of the goals of the survey was to look for game drives. Much of what Benedict documented in the Indian Peaks surrounding Niwot Ridge are complex game drive systems. For example, the Mount Albion Game Drive complex is just southwest of the Biosphere Reserve at the base of Mount Albion. Interestingly, no game drives were seen on Niwot Ridge. One possible reason for this is the geography of the ridge and surrounding landscape. The ridge is flanked on all sides by steep slopes, making it an unattractive route for animal migration. With limited game in the area, there would be little incentive to construct a complex game drive system. Instead, any hunting in the area was more likely encounter based, where single animals would have been culled, near and along the saddle where most of the sites are located. The isolated projectile points, all found in this area, may be evidence of such a strategy. ■

### Aaron Barth

I'm presenting a mini-assignment, if you choose to accept this mission. I'm looking for paragraph reviewers (or however many sentences or paragraphs reviewers want to devote) for *Punk Archaeology* (The Digital Press at the University of North Dakota, 2014). Full disclosure: I have an essay within (see bibliography of members' publications on page 23). There are also essays and contributions from North American and Mediterranean archaeologists and historians. Many of the essays figure into some kind of post-processualist thought (that self-reflective stuff). But, in the words of punk, whatever.

Have a look at the book and leave a paragraph or two review of it on Amazon.com's *Punk Archaeology* page. You'll need an Amazon.com account. Which you probably already have. You can either buy *Punk Archaeology* through the Amazon.com link. Or, in the spirit of punk, you can download it for free here: [https://dl.dropboxusercontent.com/u/16994195/Punk\\_Archaeology\\_2014.pdf](https://dl.dropboxusercontent.com/u/16994195/Punk_Archaeology_2014.pdf)

After your read it, give us your impressions. Click on "Write a customer review," on Amazon.com's page, and go for it. Let me know if you've done this, because I'd be happy to return the favor and review any of your works on Amazon.com. I think this might be called democratization. I'm not sure.

*Punk Archaeology*'s main editor, Andrew Reinhard, is a friend and colleague and fellow musician. These days Reinhard finds himself as an editor with the American Numismatic Society. He was just accepted into the Ph.D. program through the University of York, too (so now we get to make all sorts of Duke of York references when chatting with Andrew). There is banter somewhere in the UK about organizing a Punk Archaeology II. We want to grow this movement, of course. We want to get others on the punk archaeology garbage barge.

Let us know your thoughts in the reviews. Either way, I will not take offense—Dr. Samuel Johnson said it was better to be hated than ignored. I'm not entirely sure about whether it's better to be hated or better to be ignored. But I think we know what he meant.

### Rob Bozell

As manager of the Nebraska Highway Archeology Program, I am very proud to work with a tremendous staff. We completed about 175 project evaluations

throughout Nebraska in 2014. The investigations resulted in the identification of dozens of standing structures and archeological sites. Most projects were small scale re-surfacing jobs, borrow pits, and bike or pedestrian trails but several larger viaducts, bridges, and expressway segments were also examined. Several sites became the focus of test excavations but no large scale excavations were required. We also re-negotiated a five-year agreement with the Nebraska Department of Roads for continued work.

For the first time in over a decade, Nebraska celebrated Archeology Month with a nice poster of Oregon Trail-related research and events across the state. The Nebraska Association of Professional Archeologists served as the clearinghouse for the events with many archeologists and agencies contributing. I gave lectures and presentations at the Joslyn Art Museum in Omaha, Fort Atkinson State Park, Nebraska City Museums Association, and Ashfall State Park.

Work on faunal projects this year has been limited



**Bozell:** Staffing a booth at the Seward Artifact Fair during Nebraska Archeology Month with Highway Archeologist Courtney Ziska.

to identifying the collection from the Fool Chief Village near Topeka (an 1830s Kansa community) and revising a chapter on bone specimens for an upcoming report on the Kansas Monument site (a 1790s to 1820s Pawnee community). I also enjoyed spending a couple of days excavating at the Kansas Monument site this past summer with the project co-principal investigators Mary Adair, Jack Hofman, and Donna Roper and the University of Kansas field school. I gave a paper on preliminary results of the Fool Chief faunal analysis at the Plains Conference in Fayetteville.

Our office is responsible for dealing with inadvertent discoveries of human skeletal remains and coordinating with tribes and other descendants. About a dozen new cases arose in 2014 but the most interesting was the discovery in the Nebraska Sand Hills of the isolated grave of a middle-aged Native American man who was evidently an artist. Among the funerary objects was a wooden box containing eleven large mammal cancellous bone paint applicators; a pigment grinding pestle; red, yellow, and white ocher chunks; and small glass medicine bottles. The burial probably dates to the early 1800s but a tribal affiliation was not possible.

The draft of the report *Archeological Investigations at Engineer Cantonment: Winter Quarters of the 1819-1820 Long Expedition* will be going out for review in early 2015. Final editing and revisions have occupied a fair amount of my spare time in 2014. Retired Midwest Archeological Center dignitaries Tom Thiessen and Doug Scott have graciously agreed to review the manuscript. A very special thanks is extended to Carl Falk, not only for pulling together the analysis of animal bones for the project but also offering conversation and morale boosting these past few months.

Due to renovations, the Nebraska State Historical Society, Archeology Division has temporarily re-located to a nice office and lab facility at 4851 S. 16th Street in south Lincoln. All emails and phone numbers of our staff remain the same.

### John Craig

Other than digging test probes with the University of Oregon Research Department for Oregon Department of Transportation contracts, I really did not do much archaeology in 2014. I did spend a week in March looking for some evidence of Sir Francis Drake's landing on the Oregon coast but found nothing. But, as we say, "absence of evidence is not evidence of absence." After all, his landing was 436 years ago and any artifacts left behind aren't going to jump out of the ground for us! I didn't go to Scotland in 2014, but will this year and it sounds very exciting.

### Carl R. Falk

In addition to administrative tasks for PCRG, professional activities for 2014 involved minor editorial work on project reports and other research completed in prior years, including Fort Clark (PCRG Research



**Falk:** Antler and bone cache from Jones Village, Campbell County, South Dakota. The scale is 20 cm long.

Contribution 90), Chief Looking's Village (PCRG Research Contribution 85), two papers with Holmes A. Semken, Jr., and a third paper with Lauren Milideo, Holmes, and Russ Graham. Also, this past year, working closely with Rob Bozell, Thomas Labedz, Amy Koch, and Hugh Genoways, analyses of vertebrate remains from Stephen Long's 1819-1820 Engineer Cantonment were completed; editorial details will spill into 2015. An especially thought-provoking aspect of the Cantonment project was the opportunity to interact with Thomas on ever-changing bird taxonomy.

Paul Picha and I continued an investigation into use of aquatic resources by Mandan and Hidatsa villagers, primarily focusing on molluscan remains. A presentation

is planned for the mid-April annual meeting of the Society for American Archaeology in San Francisco. Additional activities during the year involved work with Rob Bozell on fish bone from an early nineteenth century Kansa village located near Topeka, Kansas, continued work with Dale Henning and Paul on the stratified (Woodland/Great Oasis) Beals site, minor consultations, and peer review.

In April, Craig Johnson visited our home near Fairfield, Pennsylvania while on a time-out from work at the Smithsonian Institution's Museum Support Center in Suitland, Maryland. It was terrific to see Craig and to have a chance to discuss projects of mutual interest, including efforts toward completion of a report on Craig's earlier work at Jones Village. During the past year, while researching use of elk by late prehistoric Plains Village groups, I was able to study modified bone and antler samples recovered from Jones Village through unfunded emergency salvage investigations carried-out by Craig and other PCRG members in 1997 and 1998. The sample, though not large, is interesting and includes three cached elk antler pieces: a heavy tine pick or punch, an 'L-shaped' scraper haft, and an unusually long, split, and straightened beam retaining split brow and bez tines. The distal (crown) end of the beam is perforated. A small bone punch also was found with these remains.

For me, one of the highpoints of the year was the 72nd Plains Anthropological Conference in Fayetteville, Arkansas. The opportunity to interact with colleagues, many of whom I had not seen face-to-face for over 30 years, was a pleasure beyond words.



**Falk:** Fred Schneider, Susan Vebik, Marvin Kay, and Carl Falk at 72<sup>nd</sup> Plains Anthropological Conference, Fayetteville, Arkansas (Photo by Susie Kay).

Finally, personal travel during 2014 was minimal, with week-long trips to New Hampshire—one to Portsmouth and a second to Concord, the state capital. During these "mini" vacations, Julie and I explored nooks and crannies in southern Maine, New Hampshire, Vermont, and northern Massachusetts, including Walden Pond, a small kettle hole immortalized by Henry David Thoreau in the mid-nineteenth century and now tailored for use by boaters, hikers, swimmers, and causal sightseers. We also spent a few days in Memphis, visiting with family and exploring the National Civil Rights Museum, an interesting and educational experience from several standpoints.

### Mike Fosha

*The Rice Cut Bank Site, 39BT39, a Northern Sand Hills Environment, Bennett County, South Dakota*

The following is an excerpt from an article published in the *Newsletter of the South Dakota Archaeological Society* (see bibliography of members' publications on page 23).

The Rice Cut Bank Site is located on the northern margin of the Sand Hills region of the High Plains. To date, the cutbank exposure at 39BT39 is the largest and best expression of soil deposition and development for the Late Pleistocene and Holocene. As such, this setting was a natural location for examination of the site by the Center for American Paleolithic Research and the South Dakota State Historical Society, Archaeological Research Center as part of a combined ongoing research project to locate and examine sites in sediments of 15,000 years old or older that have the potential to contain evidence of human presence.

The Rice Cut Bank Site is approximately 11 meters in height on a meander loop of the Little White River. The cutbank contains Pleistocene and Holocene fill capped by a two meter high sand dune. At least six paleosols (buried A-horizons) have developed in the exposure and are represented by dark organic rich buried surfaces. These buried A-horizons are separated by layers of sediment that have been modified by pedogenic processes associated with the overlying A-horizon soil development.

While bison bone (both *Bison antiquus* and Holocene-age *Bison bison*) and other mammal bone are exposed in the vertical walls of this exposure, accessibility is limited to a small corner of the site where test excavations

exposed multiple human occupations. Artifacts associated with the upper-most cultural horizon contain quality lithic material in the form of dendritic chert (referred to as Spanish Diggings) from the Hartville Uplift over 250 km distant and one biface made from a large quartz crystal with the nearest readily available source 150 km distant in the Black Hills.

From the northernmost portion of the exposure, a bison processing or kill area is located near the surface. Bison bone is exposed in two buried soils suggesting reuse of this portion of the site for bison procurement or processing. Due to a cut-and-fill (stream channel) at this location, the depositional history is not corresponding to the paleosols found throughout the site. Chipped stone, bison bone and a projectile point were also recovered from the talus beneath the bone beds.

Three separate cultural components occur in the three lowest buried soils. Two components contain lithic material dominated by local Ogallala Formation silicified wood with lesser amounts of quartzite similar to "Black Hills Quartzite." The lowest potential cultural component is associated with the top of the lowest buried soil (approximately 6 meters or 18 feet below the first buried soil). Excavation of a small shovel test recovered an unidentified large mammal bone fragment with a polished end. The type of lithic material utilized in this component remains unknown.

Two of the buried soils have been dated, both using the bulk organic carbon content. The first sample (Beta 371981) yielded a <sup>13</sup>C-corrected age of  $1380 \pm 30$  (2 s.d.) Cal AD 620 to 670 or Cal BP 1330 to 1280) radiocarbon years before present. This sample was taken near the base of the upper buried soil. The second sample was taken from the top of the lowest buried soil (Beta 365585) yielded a <sup>13</sup>C-corrected age of  $8470 \pm 40$  (2 s.d. is Cal BC 7580 to 7490 or Cal BP 9530 to 9440) radiocarbon years before present. An attempt to radiocarbon date a *Bison antiquus* tooth from deep in the stratigraphic profile failed because the tooth did not contain any collagen (protein). The bison kill or processing area on the northern edge of the site has a unique depositional history that does not correspond to the paleosols found throughout the site due to an unconformity in the soil caused by a cut and filled gully at the location. Therefore, this component cannot accurately be associated with the buried soils dated by radiocarbon and requires a radiocarbon date on the bone bed before refining the temporal association of this component.

Based upon the radiocarbon determinations, the site has been occupied off and on over the past 9,000 years and possibly much earlier. The most recent components date to the Late Prehistoric Period (*ca.* AD 1500 to AD 1700) of which little can be implied by the remains other than they procured lithic material from long distance. The next most recent component at the site is the Plains Archaic based upon a single projectile point from the area of the bison kill or bison processing locality. This point cannot be associated with the Late Plains Archaic (*ca.* 3000 to 1500 years before present), the Middle Plains Archaic (*ca.* 5000 to 3000 years before present) or Early Plains Archaic (*ca.* 7500 to 5000 years before present) until radiocarbon determinations are obtained. The oldest component identified at the site at this time is part of the Paleoindian Period and is the sixth oldest cultural component identified in South Dakota. Sites of this period are represented by multiple point types that change quite quickly or may suggest distinctively different cultural populations temporality occupying this portion of the Northern Plains. This depositional history and complex stratigraphy coupled with a stratified cultural history make the site a geo-archaeologist dream. The content and age of the soils and sand dune development can add greatly to the climatic history and cultural response to climatic events in this region. As such, it is our hope that this site will be the focus of further investigations.

### Eugene Gryba

#### 2014, A Year of Urban Archaeology

The first part of the year was rather slow for me in terms of archaeological projects. One of the projects involved fabricating over three dozen screens for local consultants and companies. The screens measure around 8 x 35 x 46 cm, have an aluminum frame, a 6 x 9-mm steel mesh, and are equipped with handles. Light, durable and easy to transport, these "Eugenoscreens" (a label coined by one of the local archaeological consultants) have proved very effective in the discovery of small prehistoric sites, particularly in the Boreal Forest environment. They are now being used by archaeologists from four major consulting firms, two provincial government bodies, as well as a number of individuals working throughout western and northwestern Canada, including Yukon and Northwest Territories. I plan to fabricate more



**Gryba:** Two "Eugenoscreens," on which handles yet need to be attached.

"Eugenoscreens" for sale once the temperature in my outdoor "patio factory" becomes comfortable enough for me to undertake such an enterprise.

The other "labor of love" project involved producing replicas of stone artifacts for several First Nations groups in northeastern Alberta for their "hands on" teaching purposes. I fashioned the replicas mostly from Beaver River Sandstone, a silcrete that outcrops along the Athabasca River north of Fort McMurray, and made them to reflect local lithic materials and artifact styles.

2014 was the first year that I did not venture beyond Calgary city limits for archaeological field work. Field work was limited to two small projects at the site of



**Gryba:** Searching for the remains of the 1875 Fort Calgary palisade that had been exposed during archaeological excavations in the 1970s and then covered by fill hauled in from nearby downtown construction sites.

the 1875 Fort Calgary, and a larger one that entailed an impact assessment of a major residential development near the western edge of the city. This latter project resulted in the discovery of both historic and prehistoric sites, some of which are slated for excavation this coming field season once ground conditions permit.

I had long been waiting for an opportunity to take in an archaeology conference in Alaska. That opportunity finally arrived this winter when two Ph.D. students from Texas A&M University, Heather Smith and Angela Younie, asked if I would lead a workshop on lithic technology at the 2015 Annual Alaska Anthropological Association Conference, scheduled in Anchorage in early March. Heather worked at the Serpentine Hot Springs fluted point site near the Bering Sea. Angela assisted in the excavation of the Little Pond microblade site that I discovered in the oil sands area in northeastern Alberta in 2001. I needed little encouragement from them, or my family, to lead the workshop as basal thinning and fluting and microblade production are two of my favorite lithic technologies and will be the focus of the Anchorage lithics workshop. Also, during this conference I hope I will see Alaskan lithics as well as some early archaeological material. My flight to Anchorage has long since been booked and a hotel reserved. In the meantime, I have been busy assembling knapping tools, producing preforms, and further honing my knapping skills in preparation for that workshop. I'm looking forward to an exciting and fun one!

### Dale Henning

The Blood Run National Historic Landmark is a Late Prehistoric-Contact period site located in northwest Iowa and South Dakota. The largest Oneota site on record, it was the home of the Omaha, Ponca, Ioway, and Oto tribes. Both Iowa and South Dakota control some site property; South Dakota recently dedicated Good Earth at Blood Run State Park, a 600+ acre parcel, and is planning to construct a visitors center on a high hill slope overlooking the site and the Big Sioux valley. I have been a consultant to South Dakota Parks as the process unfolds and recently monitored, along with Tribal Historic Preservation Officers from the Omaha, Ponca, and Ioway tribes, the investigative plow zone removal from the proposed 3.5 acre site. The process had barely begun before we began to encounter geoglyphs, narrow trenches that formed outlines of mythic creatures and

other features. The trenches are definitely man-made, are six to eight inches wide and were (before cultivation) up to 18 inches deep. When the plow zone (6 to 12" depth depending on erosion) was removed, the trenches with dark soil showed clearly on the clay-rich loessic buff-colored glacial till soils.

Had I not seen the only other comparable sites yet discovered—two uncultivated hilltop sites in Woodbury County, Iowa, excavated in 2013 by Bear Creek Archaeology under the direction of David Benn—I would not have insisted that the Parks people evaluate their chosen site prior to construction nor would I have known how to look for such images. I could have accepted a previous surface survey that produced nothing and not suggested the investigation, but was insistent that they hire someone to do it. They insisted that I take that responsibility. It took two weeks to do the mechanical stripping due to a combination of Labor Day vacation and rain, but we found that geoglyphs were visible across the whole area. Thus, an experienced Bear Creek Archaeology crew directed by David Benn was brought in to conduct a five-day investigation designed to identify and map as many images as possible. It was then agreed that this was a sacred ceremonial place and that the archaeological work should be limited primarily to surface skimming with very little cross-sectioning. Four

radiocarbon assays were made of organic materials in the dark trench soils, suggesting trench construction took place between A.D. 1 and A.D. 500. Artifacts were very scarce; no pottery and no diagnostic objects were found. The visitor center will be re-located and the soil will be replaced and planted in prairie grasses. This has been an interesting experience in many ways.

Much time and effort has gone into Blood Run promotion on the Iowa side. Visits with the governor, legislative hearings and many meetings, both in Des Moines and in northwest Iowa, were on the agenda for 2014. The governor has made money available for Blood Run promotion and land acquisition, a positive step forward. A colleague and promoter, Gerry Schnepf, and I have authored a colorful promotional booklet: *Blood Run: "The Silent City"* that will be distributed through the parks systems in both states.

Research continues on Oneota and Great Oasis sites in Iowa; progress slower than desired, of course. I prepared a table of Oneota pottery from Iowa sites for display and discussion at the Midwest Archaeological Conference in Champaign, Illinois, and gave a paper entitled "Catlinite Quarrying and Distribution Patterns ca. AD 1300-1700" with E. Eric Hollinger at the Plains Anthropological Conference in Fayetteville, Arkansas.

But, not all has been archaeology. Once again, we



**Henning:** Sketch of a geoglyph, probably a bison with a heartline, Wa Sha' Be (39LN108), Good Earth at Blood Run State Park.

took in the annual Nordic Fest in Decorah, Iowa (my home town) where Barbara was able to wallow in her Norwegian-ness and we could visit my family. Then, a few days after the streets had been cleaned following the horse parade, I attended my high school reunion (the 65<sup>th</sup>). This was a special reunion for me—I had been selected (the only one who would do it) to set up the past two reunions and, satisfied with all the honors thereto, offered to step down immediately following this one. There were no takers (all too old) for this exalted position, so we declared the reunions would end on a positive note with about half the class still alive and half of those still somewhat functional. That is that.

Each year, we have said: "Given the miserable air service, just one more overseas trip." So, we took a Viking cruise (highly recommended; put your baggage on board and don't move it for the duration of the ride) up the Rhine River from Amsterdam to Basel and lots of stops in between, plus three days each in Bruges, Belgium and Lucerne, Switzerland. Wonderful trip!

Looking forward to more Blood Run work, more research and, yes, we have signed on for a trip to Sicily, southern Italy and three days in Rome ... just one more.

#### Craig Johnson

The past year has been a very busy and productive one with steady progress made on my chipped stone book in my spare time, in addition to my day job doing Section 106 review and compliance work for the Minnesota Department of Transportation. Besides the routine projects, we hired a consultant to write a Lithic Scatter Multiple Properties Documentation Form to assist us in evaluating this ubiquitous property type for inclusion in the National Register of Historic Places. It will be completed in 2015.

This spring, I spent another month examining artifacts at the Smithsonian Institution's Museum Support Center near Washington, D.C., assisted by Bill Billeck and James Krakker. I easily slipped into the 40 mile daily car round-trip on the Beltway from my home base in University Park, Maryland. My goal was to collect chipped stone technological class by raw material for arrowpoints, large bifaces, endscrapers, and retouched flakes from a number of very large collections from multi-component sites including Dodd (39ST30), Oldham (39CH7), Chapelle Creek (39HU60), Sully (39SL4), and Breeden (39ST16). All required an initial



**Johnson:** With a catlinite plaque from the Sully site (39SL4).

examination of rim sherds to identify provenience units that were reasonably unmixed and could be assigned to the various site components. Once this was accomplished, stone tools were added-up by provenience unit and then tallied for each component. Results indicate that anywhere from 43 to 83 percent of the stone tools from these sites could be assigned to components. Even though many tools had to be eliminated due to mixture, the large size of the collections provided an adequate number of tools for each component. I also recorded flake types on retouched flakes and collected data on a number of biface and flake caches from Middle Missouri Plains Village sites.

Preliminary results of my research support previous findings of a down-river decline in Knife River flint (KRF) among Initial Middle Missouri villages in South Dakota, but a significant increase at the far-off Mitchell site on the Lower James River. The long-distance transport of KRF is thought to be a component in an early Plains Village trading system linked to both the Gulf and Pacific coasts through the Mississippian

network centered at Cahokia, with variation in the amount of KRF possibly reflecting time of occupation. Complementing the KRF geographic trend is a gradual upriver decline in large bifaces and retouched flakes made from Ogalalla orthoquartzite, beginning south of the Big Bend region. It is apparent that large bifacial cores were brought into these early villages to be further reduced into bifacial cutting tools. Many of the resulting larger flakes were used as expedient retouched tools. The geographic trends in both raw materials are closely tied to distance from the quarry sources. KRF was also used extensively by Extended and Terminal Middle Missouri peoples, but declines dramatically below the Grand River where there is a reliance on local cherts and chalcedonies. Smooth gray Tongue River silicified sediment (TRSS) was the most popular stone at Huff and 32MO291, except for endscrapers which are made from KRF.

Among Initial and Extended Coalescent villages, local jaspers and cherts increase from the North Dakota-South Dakota border to south of Pierre, reflecting greater availability in these secondary-deposited materials. Local chalcedonies are fairly constant but there is a significant increase in the use of plate chalcedony and orthoquartzites from the Cheyenne River and south. The general low numbers of these materials in the Extended Coalescent villages north of the Moreau River is offset by a greater reliance on smooth gray TRSS. This stone is also widely used in the late Heart River villages, second only to KRF. The low frequency of KRF at the Demery site indicates that it can be assigned to the Extended Coalescent rather than also having a major Extended Middle Missouri component. The Coalescent patterns



**Johnson:** A man and his fish.

are similar to those from earlier Archaic and Woodland sites, where local cherts and chalcedonies characterize the chipped stone assemblages south of the Moreau River. Above this point, KRF dominates the assemblages.

This year also marked the beginning of writing up the results of my research. In addition to numerous tables and figures, I completed drafts of six of the eight chapters. Despite endless hours of research, Charlene and I spent a relaxing four days in September fishing for Bluegill and Northern Pike at my Uncle's lake home in northern Minnesota. I also had an opportunity to fish Rainbow Trout for the first time using down-riggers, which was quite an experience. I also visited Carl and Julie Falk in Pennsylvania while out east last spring, highlighted by a guided tour of the Gettysburg Battlefield National Military Park.

### Chris Johnston

The last year is one I will never forget. I made great strides towards completing my thesis on the Roberts Buffalo Jump (5LR100) in northern Colorado. My work with the collection has included coding and cataloging all of the bison bone, chipped stone, and other artifacts from the site. With funding assistance from multiple organizations, I was able to get AMS radiocarbon dates on five bone elements, all of which clustered in the early seventeenth century. I used the available spatial data to examine site structure and noted some interesting patterns. One interesting observation is that the fetal bison bone all comes from the same area, which is also the only flat spot on the whole site. Some firsthand accounts of bison hunts indicate fetal bison were considered a delicacy, and were often immediately consumed post-kill; this appears to be the case at Roberts. While this has been an amazing project to work on, I am very much looking forward to defending this spring. I'll be happy to share a copy of the final version with anyone who is interested.

I was also able to make the transition back to working at the PCRG lab, assisting Mark with project planning, finalizing past projects, and working with our work-study students, among many other tasks. Having started as a work-study student with PCRG in 2009, I am thrilled to be back working with such a great organization; it really is a dream come true. The best news of the year, however, was when my wife and I welcomed our first child to the world on June 4. Graham Frederick Johnston

was born a happy and healthy little boy, and he continues to be such a joy in our lives. Fatherhood has been the best experience of my life and I cannot wait for all of the adventures ahead!

### Dick Krause

I am still recovering from a heart attack suffered in July that required a triple bypass, valve replacement, and valve repair. This put a bit of a limit on my participation in field work and hindered my attempts to finish projects that included the analysis of pottery from two Choctaw sites in Kemper County Mississippi and the analysis of pottery from the Wallace Site in Colorado. I attended the Plains Conference in Fayetteville Arkansas, but, for the first time in 10 years, did not give a paper. I finished the Kemper County analysis in time to present a paper to the Southeastern Archaeological Conference and am currently working on the pottery from the Wallace Site. Articles I published in 2014 are listed in the bibliography of members' publications on page 23.

### Jennie Borresen Lee and Craig M. Lee

Jennie and Craig formally hung out a shingle for Metcalf Archaeological Consultants, Inc. (MAC) (<http://www.metcalfarchaeology.com>) in Bozeman in 2012 and bought a house! Ella (now 7 years old) likes the house, has a dog named Hazel, and is into horses and ballet. Jennie is a Principal Investigator (PI) and Project Manager (PM) as well as the company's faunal analyst. We've had a fair number of projects, and according to our company's President, Nathan Boyless, "we're on track." Craig continues in his role as Metcalf's Director of Research and as PI, PM, and Branch Coordinator for the Bozeman office. In his spare time he's been serving as the President of the Montana Archaeological Society (MAS) and will orchestrate the society's annual meeting (with much appreciated help!) at Chico Hot Springs in Pray, Montana April 2-5. Dr. Pegi Jodry from the Smithsonian Institution will provide the keynote address. The fieldtrip will be to the nearby Clovis-age Anzick site. Craig continues to serve on the Board of Directors for the Lamb Spring Archaeological Preserve and he was honored to join PCRG's Board in 2014! He's teaching an introductory course in biological anthropology and archaeology at Montana State University this spring as an adjunct and he remains a Research Scientist at the



**Lee:** Jennie, Ella, Craig and Hazel hiking in the Beartooths! (Note ice patch for scale; photo by friend Rachel Reckin, PhD student at Cambridge!)

Institute of Arctic and Alpine Research (INSTAAR). He made the usual suite of presentations on "ice patch archaeology" and published seven short articles. One, a review of Stanford and Bradley's *Across Atlantic Ice: The Origins of America's Clovis Culture*, can be found at: <http://www.paleoanthro.org/static/journal/content/PA20140470.pdf>. He also co-authored a book chapter on his work in Alaska (see bibliography of members' publications on page 23). In 2015, he's looking forward to working more with PCRG and to the publication of a labor-of-love manuscript entitled "Microcores and Microliths in High Plains and Rocky Mountain Front Lithic Assemblages" in *Plains Anthropologist*, with co-authors Michael Neeley, Mark Mitchell, Marcel Kornfeld, and Crae O'Conner.

### Steve Montgomery

Is there a Folsom camp somewhere between the Folsom sites in the San Luis Valley and the Mountaineer site near Gunnison? This is my layman's research objective and a good excuse to get out with my pal Sandy Shea and see some beautiful country and interesting prehistoric sites in the hills on either side of Cochetopa Pass, Colorado. This year we roamed the east flanks of Sawtooth Mountain



**Montgomery:** A stone enclosure on Los Pinos Creek.

above Los Pinos Creek. We saw some interesting features and a few tools and flakes, but nothing diagnostic. The photo above shows the view looking south from a circular feature on the nose of a ridge overlooking Los Pinos Creek just above its merger with Cochetopa Creek. If you squint you'll see the buffalo herd in the distance!

### Rin Porter

#### *Upper Crossing Excavation*

In late June I took part in the Upper Crossing dig project directed by Mark Mitchell in south-central Colorado, involving 9 to 18 people depending on the day. We were assigned to teams to excavate habitation sites on a mountain above the beautiful Saguache Creek valley. It appeared to me that the habitation sites were probably



**Porter:** Supervising work in Unit 2 at the Upper Crossing site.

pit houses, each walled by a semi-circle of rock slabs placed in front of a much larger rock wall to form an enclosure. Our two excavation units yielded lots of flakes and debris, cracked rock, some charcoal, and four points at different levels. I enjoyed working alongside students completing their field school and their graduate student instructors.

### Mike Scullin and Wendy Munson Scullin (Midwest Ethnohorticulture)

Mike and Wendy continued their study of phytolith profiles in known garden beds by sampling garden beds from the western Upper Peninsula of Michigan, the Menominee Reservation in Wisconsin (where David Overstreet continues to identify previously unrecognized garden beds), and several other sites in Wisconsin. Extraction of phytoliths also extracts diatoms which can further define soil and garden history.

In July, the University of Nebraska Press published Mike's on the work of Gilbert Wilson (see bibliography of members' publications on page 23). Wilson worked summers at Fort Berthold from 1906 to 1918, primarily with the family of Buffalobird-woman and her brother Wolf Chief as well as her son Goodbird, who was Wilson's translator and illustrator of much Hidatsa life. The book focuses on various plants used in the mid-1800s when the Hidatsa were living at Like-a-Fishhook Village, the last of the Hidatsa earthlodge villages.

### Elaine Smith

I have nothing new in my life concerning archaeology projects, and probably my days of volunteering for such things are in the past. I did enjoy a great trip through northern Spain and Portugal this fall, where I experienced grand scenery, adventures in eating, exploring historic sites, and welcoming people. My late winter trip to west Texas was another adventure. It is easy to see why someone has said "When God finished creating the earth's landscapes, He dumped the leftovers in West Texas."

### Kim Spurr and David Purcell

Kim continues to work at the Museum of Northern Arizona as the coordinator of the archaeology division. The administrative duties somewhat overwhelmed her

but she did manage to get into the field on a couple of small excavation projects early in the summer and late in the fall. David's work with WestLand Resources started slow in 2014 and dwindled to nothing by summer, so he joined the Museum of Northern Arizona on a part-time basis, working on two interesting projects. On one project, he is using his credentials as a historian in preparing an administrative history of Arches National Park for the National Park Service. An administrative history is a document geared towards park managers, so that they understand past issues and topics of internal and public concern within a park unit. We traveled to Moab twice to work at the NPS archives there, and took the opportunity to explore Moab, Arches, and Canyonlands National Parks. Moab is close to Grand Junction, so we also visited Kim's mom.

David also worked for the museum doing intensive documentation of 120 rock art panels at one site in Wupatki National Monument. David ran the project in the field, and got to camp out all of October in the monument backcountry. In addition to spectacular petroglyph panels and Pueblo ruins, the site has incredible landscape vistas. One of the highlights of the project was the discovery of a possible solar calendar. To evaluate this, we will be visiting the site on the solstices and equinoxes during the coming year, shooting video and time lapse photos to measure how the panel may mark annual events and daily time shifts. David did do a few interesting projects for WestLand, including relocating part of the Arizona Trail on the Gila River in the Tortilla Mountains (yes, that is their real name). Work is beginning to pick up for WestLand, so 2015 will present challenges for balancing the two jobs.

The high point of 2014 was a once-in-a-lifetime trip to Kenya with David's father and his partner, Sue. The safari was guided by Greg du Toit, 2013 World Wildlife Photographer of the Year, and we travelled to the Maasai Mara Game Preserve and a nearby conservancy owned by the Maasai. Over nine days, we visited two bush camps—Naibor on the Talek River and Kichechee in uplands to the north—with local Maasai guides and drivers. The experience greatly exceeded everyone's expectations, but the high points included seeing a black rhino (with a horn nearly 3 feet long), many elephants, a leopard playing with a caracal (a smaller wild cat like a red lynx) that it had just killed, and witnessing jackals chase a 15 foot long rock python off a gazelle that it had just killed, only to be chased off in turn by vultures!



**Spurr and Purcell:** Two petroglyph panels at Horseshoe Mesa; breakfast on safari in Kenya.



### Adam Wiwel

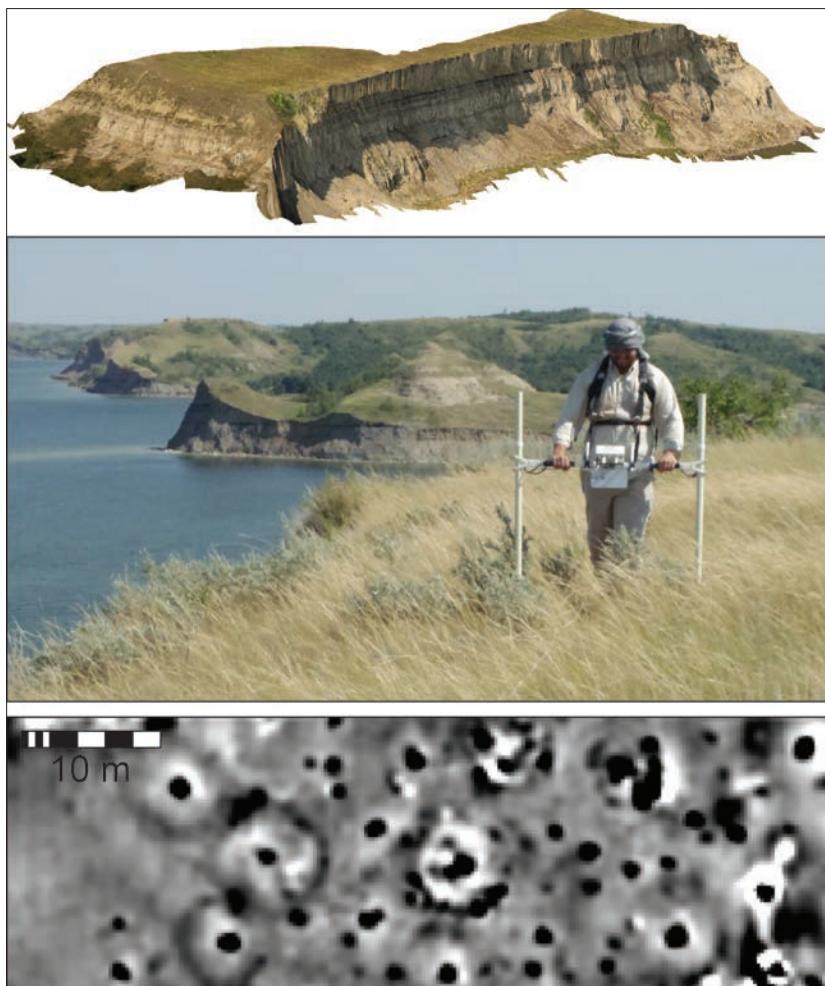
During 2014, I presented or contributed to papers at several conferences, including Digital Domains: Remote Sensing of Past Human Landscapes (Dartmouth College, Hanover, New Hampshire), Society for American Archaeology (Austin, Texas), the Age of Sensing: 5th International Conference on Remote Sensing in Archaeology (Duke University, Durham, North Carolina), and the Plains Anthropological Conference (Fayetteville, Arkansas). These papers covered a variety of topics, including UAV-based aerial thermography, digital photogrammetry, geophysical investigations of two Jesuit haciendas in Peru, and interpretations of magnetic gradiometry and elevation data from the Huff site in North Dakota. My paper on Huff received the Student Paper Award at the Plains Anthropological Conference. Another paper and a corresponding video that can be viewed at <http://www.drsinfrared.com/>

AboutDRS/studentcompetition.aspx, presented with colleagues from the University of Arkansas, were awarded Overall Video Winner and Third Place Project at the DRS Student Infrared Imaging Competition in Melbourne, Florida. This was an interesting experience because most participants were engineering students, but the folks from DRS were pleasantly surprised by our use of their thermal camera.

Besides these conference papers, *Plains Anthropologist* published a paper that I co-authored with Ken Kvamme on magnetic surveys at Fort Clark State Historic Site in North Dakota (see bibliography of members' publications on page 23). The project focused on our attempt to identify nomadic group encampments outside the nineteenth century Mandan-Arikara village. I contributed to a *Journal of Archaeological Science* publication with Jesse Casana, John Kantner, and Jackson Cothren concerning the use of UAVs and photogrammetric software to collect and process thermal imagery. Our work at the Blue J Community, a Chaco-era settlement in northwestern New Mexico, illustrates the potential of these combined methods. Additionally, I was an instructor at the National Park Service's remote sensing workshop (Current Archeological Prospection Advances for Non-destructive Investigations in the 21st Century) held at Aztalan State Park, Wisconsin.

My work with historical photographs of the Missouri River in North and South Dakota for the Center for Advanced Spatial Technologies at the University of Arkansas (in collaboration with the South Dakota Archaeological Research Center and U.S. Army Corps of Engineers) continued in 2014. We have obtained about 5,500 photographs from the 1930s-1970s and have used these to produce many orthophotographs and digital surface models of sites and landscapes along the river. I have been asked to contribute a chapter to an edited volume on remote sensing by Maurizio Forte and Stefano Campana about this work.

In August and September, I led a team of students



**Wiewel:** 3D model of Midipadi Butte created from aerial images (top), Chris Fletcher performing magnetic gradiometry survey at Midipadi Butte (middle), and magnetic gradiometry results showing circular lodges, central hearths, and other features.

from the University of Arkansas (Autumn Cool, Christopher Fletcher, and James Zimmer-Dauphinee) and Center for American Archeology (Taylor Thornton) in remote sensing investigations of sites in the Dakotas. These include Midipadi Butte and Nightwalker's Butte in North Dakota and Helb, Lebeau, Stony Point, Red Fire, Oacoma Village, Deerfly, and Meander in South Dakota. We performed extensive magnetic gradiometry surveys at these sites along with more limited electromagnetic induction and ground-penetrating radar surveys at several. When possible we also collected aerial thermal and color imagery. Although this work was difficult due to our schedule and habit of attracting unfriendly rattlesnakes, we achieved amazing results at most sites. Our results at Midipadi and Nightwalker's Butte will

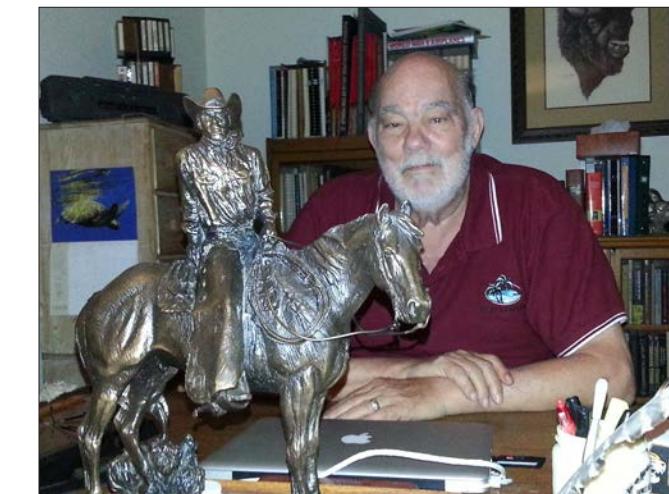
be presented at the Society for American Archaeology meeting in San Francisco in 2015.

### Ray Wood

On March 16, I lost my oldest son, Elbert Stanley, and it leaves a real void in my life. A second son, Eric, and daughter Marigene survive. Stan was named after my father and my older brother, who died in the air war over Germany in World War II.

The National Cowboy & Western Heritage Museum awarded me and my co-author, Robert M. Lindholm, the Wrangler Award for our 2014 book (25 years in the making): *Karl Bodmer's America Revisited: Landscape Views Across Time*. The award, presented in Oklahoma City on April 12, is a bronze statue of a cowboy astride a horse, and is awarded to both authors and the publisher, the University of Oklahoma Press. The statue weighs in at 28.5 pounds and serves admirably either as a mantel piece or a doorstop!

Myself and a North Dakota colleague, Michael M.



**Wood:** Ray and his Wrangler Award for Karl Bodmer's America Revisited: Landscape Views Across Time.

Casler, also signed a contract with the South Dakota State Historical Society Press to publish a major work on the *Upper Missouri River Fur Trade: The letter books of Forts Tecumseh and Pierre Chouteau, 1830-1850* (both forts are across the river from modern Pierre, South Dakota). We're fortunate that the copy editor will be Steve Witte, who served as the lead editor of the three volumes of the new *North American Journals of Prince Maximilian of Wied*.

My cataract surgery in both eyes now permits me to see like an eagle, but I still need glasses to read. Oh well... Son Eric and I made our annual summer trip to the Dakotas in late June, via Minneapolis and Winnipeg, taking in a mini-symposium in Bismarck featuring Ray DeMallie and Douglas D. Scott, allowing me to catch up on most of my friends in the Flickertail State.

I've now moved from our old three-level house to a new, one-level one; stairs were beginning to take a toll on my legs, already weakened by neuropathy. My new address is listed in the directory of PCRG members.

### PCRG Members' Recent Publications

#### Barth, Aaron L.

2014 Considering the Universal Punk in World History. In *Punk Archaeology*, edited by William Caraher, Kostis Kourelis, and Andrew Reinhard , pp. 21-27. The Digital Press at the University of North Dakota, Grand Forks.

Casana, Jesse, John Kantner, **Adam S. Wiewel**, and Jackson Cothren

2014 Archaeological Aerial Thermography: A Case Study at the Chaco-era Blue J Community, New Mexico. *Journal of Archaeological Science* 45:207-219.

#### Condon, Peter C.

2014 Examining Context and Association at the Clovis Type-Site: Interpreting the 1963–1964 Spring Conduit Excavations, Roosevelt County, New Mexico. *Plains Anthropologist* 59(231):241-260. Dixon, E. James, Timothy H. Heaton, **Craig M. Lee**, Terence E. Fifield, Joan Brenner Coltrain, Brian M. Kemp, Douglas W. Owsley, Eric Parrish, Christy Turner, Heather J. H. Edgar, Rosita Kaaháni Worl, David Glenn Smith, and G. Lang Farmer

2014 Evidence of Maritime Adaptation and Coastal Migration from Southeast Alaska. In *Kennewick Man: The Scientific Investigation of an Ancient American Skeleton*, edited by Douglas W. Owsley and Richard L. Jantz, pp. 537-548. Texas A&M University Press, College Station.

#### Fenn, Elizabeth A.

2014 *Encounters at the Heart of the World: A History of the Mandan People*. Hill and Wang, New York.

#### Fosha, Michael

2014 Weighing in Again: Two Additional Atlatl Weights from South Dakota. *Newsletter of the South Dakota Archaeological Society* 44(1&2):2-5.

# PCRG Members' Activities

**Fosha, Michael, Steven Holen, and James Donohue**  
2013 The Rice Cut Bank Site, 39BT39, a Northern Sand Hills Environment, Bennett County, South Dakota. *Newsletter of the South Dakota Archaeological Society* 43(4):1-3.

## **Knudson, Ruthann**

2014 Women in Reservoir Salvage Archaeology. In *Dam Projects and the Growth of American Archaeology: The River Basin Surveys and the Interagency Archeological Salvage Program*, edited by Kimball M. Banks and Jon S. Czaplicki, pp. 180-201. Left Coast Press, Walnut Creek, California.

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