



Organization Report for 2010

The Year in Review

The past year was one of both continuity and change for PCRG. While maintaining its long-time focus on the archaeology and paleoecology of the Northern Plains, the organization also continued development of a new research program centered on the Southern Rocky Mountains. The diversity of the current project roster is a testament to the varied interests and strong support of our organization's members—now nearly 100 strong, living in 30 states and provinces.

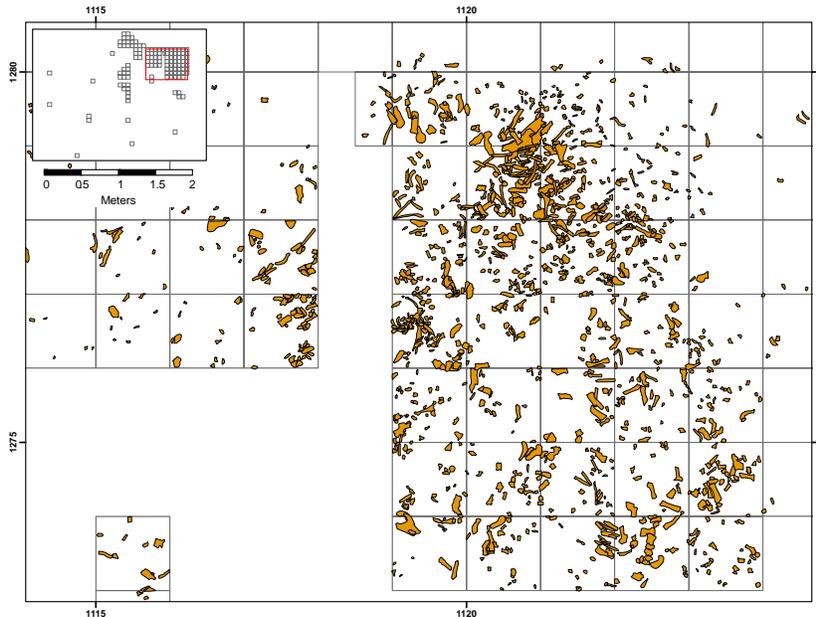
Continuing Research

Work continued in 2010 on PCRG's twin research emphases in Paleoindian and Plains Village archaeology. PCRG staff, members, and research associates continued their studies of artifacts, faunal remains, and other materials from the Beacon Island site (excavations shown above), an Agate Basin bison kill and butchery locality in western North Dakota. Though renewed work at the Hell Gap site and new analyses of existing collections from the Agate Basin and Frazier sites have provided a wealth of new insights, the Beacon Island project represents a unique opportunity to better understand Agate Basin technology and lifeways.

Analyses also continued on materials from Chief Looking's Village, one of a score of settlements occupied by the Mandans above and below the mouth of the Heart River between the late fifteenth and late eighteenth centuries. The site differs in important ways from previously studied Heart River towns and findings from the project will contribute to a more comprehensive understanding

of Mandan settlement, subsistence, and regional interaction during this pivotal period.

As I write this, work on both projects is nearing completion, with final technical reports due later this year. Symposia reporting the initial results of both projects were featured at the 2010 Plains Anthropological Conference, held in Bismarck last October. A number of PCRG members were responsible for organizing this well-attended and highly productive conference (*see Amy Bleier's summary, page 10*).



The Beacon Island bone bed

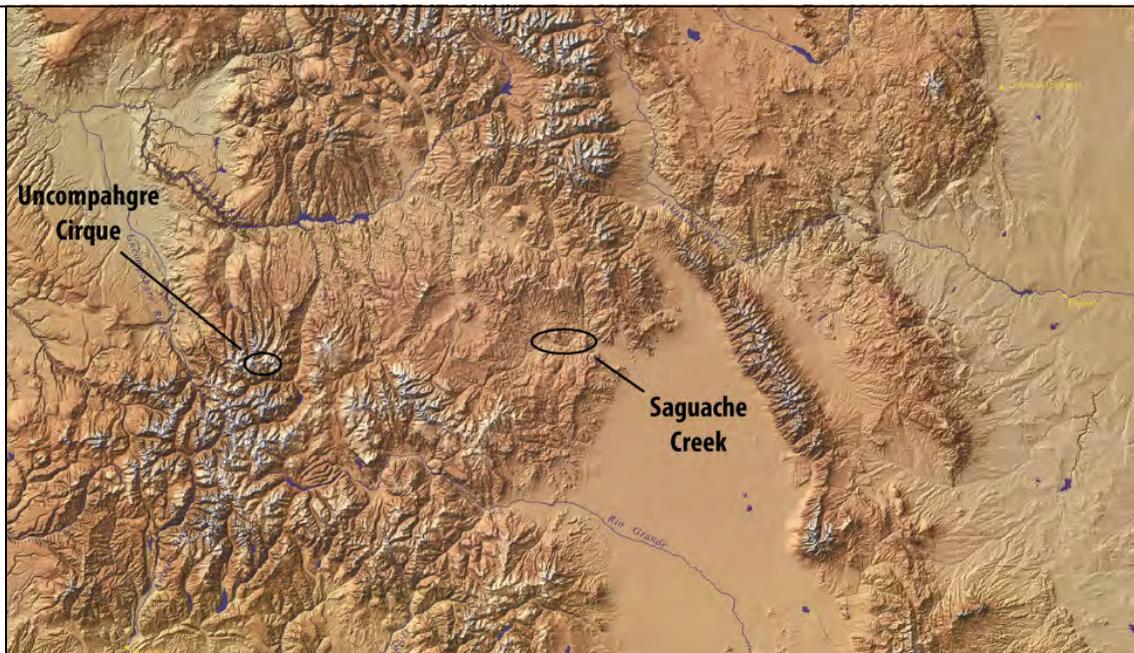
New Directions

This year, in cooperation with the U.S. Forest Service, Bureau of Land Management, Colorado Historical Society, and University of Denver, PCRG initiated a long-term research program on the hunter-gatherer archaeology of Colorado's High Country. Field investigations in 2010 focused on a high-altitude lithic workshop in the

northern San Juan Mountains and on an intensively occupied camp in the Saguache Creek valley. You can read more about these projects in the pages that follow. This coming summer, PCRG will again return to the mountains to work on a high-elevation site in the Flat Tops Wilderness on the Medicine Bow-Routt National Forest.

PCRG is also working with the Forest Service on a heritage tourism study of the White River National Forest. The project combines anthropological research on heritage attractions in the region with analyses of existing data on historical archaeological sites on the forest. The results will help the agency allocate scarce resources for site protection, enhancement, and interpretation.

On a personal note, I want to take this opportunity to express my profound gratitude to the many PCRG members who contributed to my now-completed doctoral dissertation on the organization of Mandan craft production. Stan Ahler, PCRG founding member and long-time Research Director, led the interdisciplinary team that carried out the primary research on which my project is based. Dozens of PCRG members participated in this work, lending their time and talents to all facets of the research, from project planning and management to field investigations and lab analyses. Without their efforts my own work simply would not



Locations of PCRG projects in the Southern Rocky Mountains

have been possible. Numerous PCRG members also contributed directly to my investigation of Heart River pottery and stone tool technology, generously offering comments, counsel, expertise, and encouragement along the way. To all of them I extend my heartfelt thanks.

Finally, I invite you to tell me how the organization is doing. Call or send an e-mail with your thoughts about past projects and your suggestions for future research. If you find yourself in the Denver area, plan to stop by the lab to meet our students and learn more about our current projects. PCRG now has a Facebook page: search on "Paleocultural Research Group" from your homepage. If enough of you "like" us, we can establish a domain name. And be sure to visit us on the web (www.paleocultural.org) for the latest information on fieldwork opportunities.



Circular stone structure at Middle Saguache

Warmest regards,

Mark D. Mitchell, Research Director

Mark D. Mitchell, Research Director

New Membership Categories

In 2010, PCRG began offering several new membership categories. In addition to the standard Participating Membership for individuals, a discounted Student Participating Membership is also available, as is a Family Participating Membership for households with more than one active member. Annual dues for the standard Participating Membership are \$25.00. Dues for students will be \$10.00, while those for families will be \$30.00. A Supporting Membership category is also available. Annual dues for an Individual Supporting Membership remain \$10.00, while dues for a Family Supporting Membership are \$15.00.

Middle Saguache Creek Project

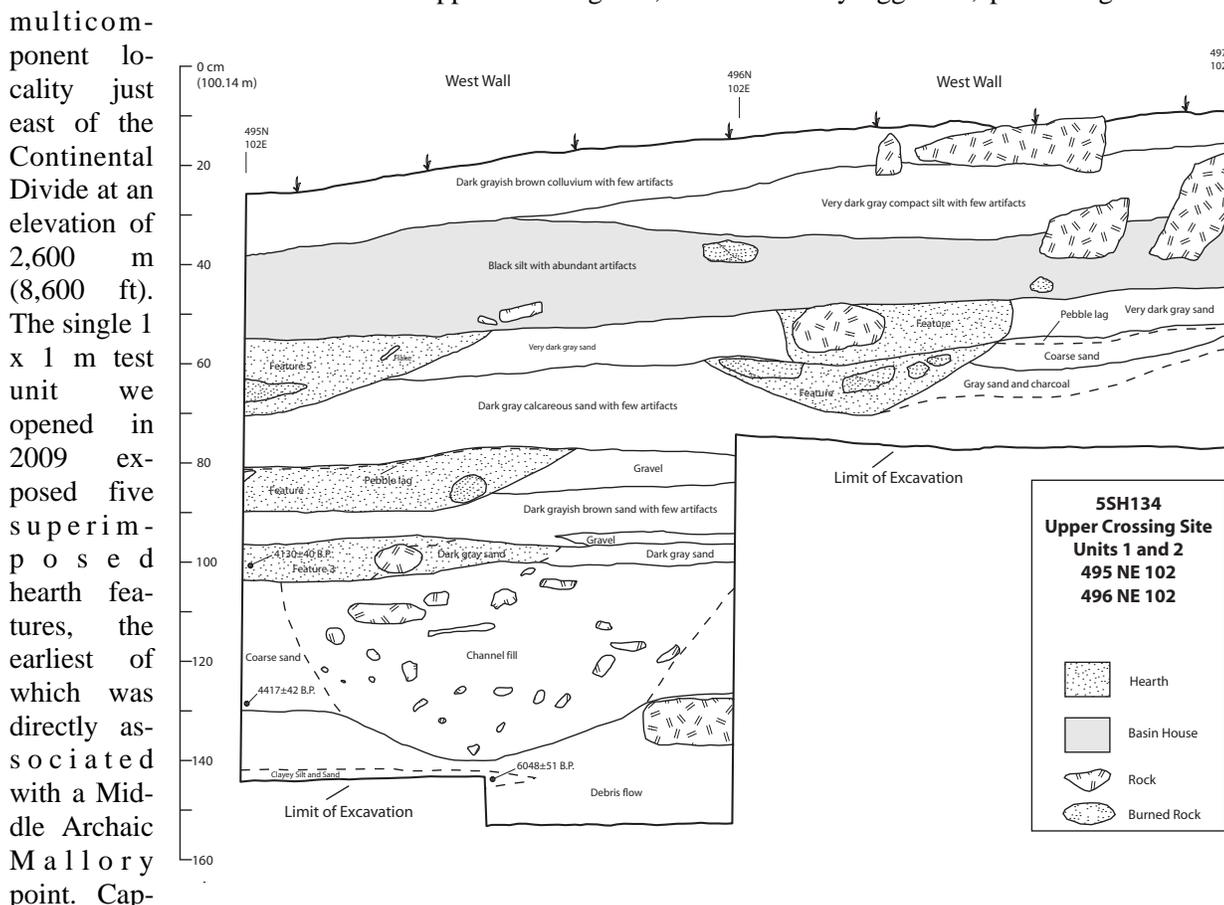
Mark D. Mitchell

This year, PCRG and the San Luis Valley Public Lands Center continued their collaborative, multi-scalar investigation of long-term human land use in the Saguache Creek valley. Bands of hunter-gatherers first entered the middle reaches of the valley at least 8,000 years ago. Regular, intensive exploitation of its productive ecosystem began more than 4,000 years ago and continued into the late 1800s. Building on last year's promising results, the research team returned in June for a two-week investigation of the stratified Archaic deposits contained within a small alluvial fan at the Upper Crossing site, a multicomponent locality just east of the Continental Divide at an elevation of 2,600 m (8,600 ft). The single 1 x 1 m test unit we opened in 2009 exposed five superimposed hearth features, the earliest of which was directly associated with a Middle Archaic Mallory point. Capping these Middle Archaic deposits was an apparently spatially restricted sediment package containing abundant flaking debris and faunal remains, along with a collection of large, corner-notched dart points. The team approached the 2010 excavation with two goals in mind. The first was to determine the depth of the cultural deposits present in the fan and to obtain a larger sample of artifacts from deeply buried contexts. The second goal was to investigate the limits and character of the overlying dense artifact concentration. To achieve these goals, a total of eight new excavation units were opened, mainly on either side of the active arroyo that had first exposed the cultural deposits. Work also continued in the unit be-

gun in 2009.

Radiocarbon dates from the deepest part of the excavation document a series of dramatic shifts in the local environmental regime. The oldest stratum exposed represents a high-energy debris flow. Charcoal from fine-grained sediment within the flow dates to 6,048±51 B.P. A band of charcoal, possibly the result of a forest fire, caps this debris flow. A pine cone in the charcoal lens dates to 4,417±42 B.P. A thick sand unit, into which a rock-filled channel was cut, overlies this charcoal lens. Human use of the area began more than 4,000 years ago: charcoal from the hearth containing the Mallory point dates to 4,130±40 B.P. For the next several centuries the fan slowly aggraded, preserving a remarkable sequence

of superimposed hearths. Radiocarbon dates are not yet available from the artifact-rich stratum overlying these features, but based on the associated projectile points it likely is 2,000 to 3,000 years old. A thin colluvium, containing Puebloan pottery dating to the eleventh or



twelfth centuries, caps this Late Archaic unit, indicating that deposition on the fan ceased some 800 or 900 years ago.

Excavation successfully defined the margins of the artifact- and bone-rich stratum, which covers some 20 sq. m. This sediment package fills a shallow basin cut into the underlying Archaic-age fan deposits. At least one large, rock-filled hearth originates at the floor of this basin, as does a pit feature filled with charcoal-rich sediment. A second, smaller pit originating at the floor of the basin and measuring just 12 cm deep and 25 cm in diameter was filled with dozens of flakes set on end and stacked like the pages of a book. Most of these are large

Together, these data suggest that the artifact-rich unit represents a Late Archaic basin house.

Laboratory analysis of the artifacts and other materials collected in 2010 has just begun, but several preliminary observations are possible. A diverse array of toolstone types is associated with the basin house. These include materials that crop out within a few km, as well as high-quality quartzites that likely come from the Gunnison River basin west of the Continental Divide. Stone tool production is well attested by the many dart point preforms in the collection that were broken during manufacture. The presence of groundstone tools and a broad range of chipped stone cutting, scraping, and perforating tools indicates that a variety of activities occurred within and adjacent to the house basin.

In August, the team returned to the Saguache Creek valley to document Late Prehistoric architectural features. During the 2009 field investigation we mapped 29 such stone enclosures in two clusters at the Upper Crossing site. To put the 2009 data in context we studied enclosures at five other sites, including two on the south side of Saguache Creek close to Upper Crossing and three others some 15 km downstream. Our work revealed significant variability among the structures located in this relatively restricted part of the valley. The most intriguing finding was evidence for at least two major periods of occupation. Data from Upper Crossing indicate that most of the enclosures there were built in the first millennium, likely by groups with strong connections to the Arkansas River valley in southeastern Colorado. Many of these structures feature distinctive vertical-slab foundations. In contrast, horizontal-slab masonry was used to build structures at one of the down valley sites, which also include niches or alcoves not found at Upper Crossing. Based on their association with distinctive Puebloan pottery, these structures likely were built in the 1000s or 1100s, by people with connections to the Rio Grande in north-central New Mexico.

High-Altitude Archaeology in the Uncompahgre Wilderness

Mark D. Mitchell

This year PCRG initiated a new research effort focusing on the hunter-gatherer archaeology of Colorado's High Country. Our first foray into the alpine tundra took

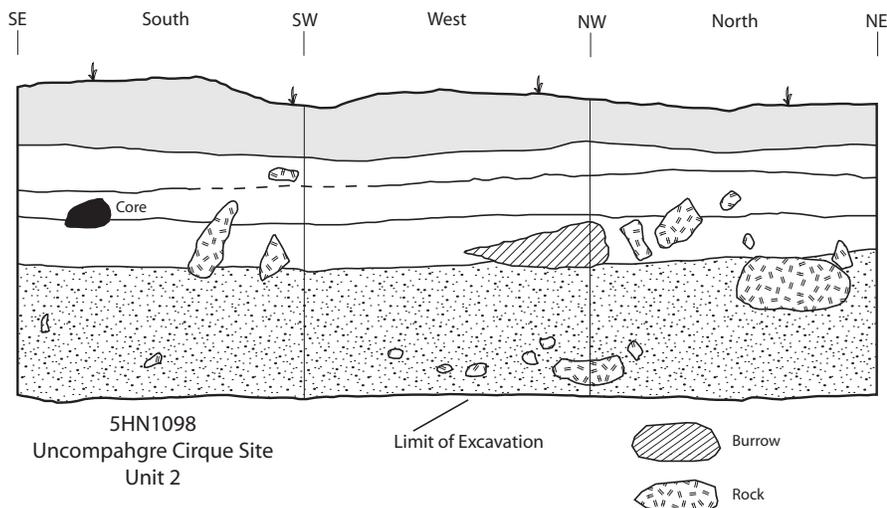


Riding the high country: equipment train to the Uncompahgre Wilderness

us to the flanks of Uncompahgre Peak, the highest peak in the San Juan Mountains and one of 54 in the state topping 4,267 m (14,000 ft). The target of this year's fieldwork was the Uncompahgre Cirque site, an extensive lithic workshop located on a turf-banked bedrock terrace at 3840 m (12,600 ft), adjacent to a productive source of high-quality chert. The site is within the boundaries of the Uncompahgre Wilderness, which is managed by the Grand Mesa, Uncompahgre, and Gunnison (GMUG) National Forest. The research team included PCRG staff and volunteers, U.S. Forest Service archaeologists and Passport-In-Time volunteers, and faculty and students from the Department of Geography at the University of Denver. Funding for the project comes from a Forest Service Challenge Cost Share Agreement and a State Historical Fund Grant awarded by the Colorado Historical Society.

The primary objectives of the 2010-2011 field and lab investigation are to document the extent, content, age, and current condition of the site; to obtain and analyze paleoenvironmental data from in an adjacent spring-fed wetland; and to gather data needed to produce a benchmark context for assessing the high-elevation sites in the San Juan Mountains. The initial fieldwork phase of the project focused on five data collection strategies: small-scale controlled excavation, intensive surface mapping, targeted surface collection, sediment sampling, and pedestrian survey.

The excavation program targeted two areas of remnant turf bank on the southern end of the site. Five 50 x 50 cm test units were opened there. Both pedogenic and lithostratigraphic strata are remarkably well preserved in the turf bank (*see profile on page 5*). Three sediment packages, partitioned into five horizons, can be identified. The uppermost stratum consists of gray silt capped



decomposed plant material (peat) that is preserved by a high water table, are known as fens. While there are a number of fens in Colorado, such features are relatively rare above treeline, and this makes the small fen at the Uncompahgre Cirque site particularly interesting. The research team obtained four cores from the fen and currently is studying four paleoenvironment proxies, including pollen content, organic carbon and bulk density, and humification.

Lab analyses have only just begun, but already this work has produced a number of intriguing

by alpine tundra. Beneath this modern soil is a relatively well-developed paleosol comprised of distinct 'A,' 'B,' and 'C' horizons. The lowest stratigraphic unit encountered in the excavation units is a till. The modern soil contains a few artifacts, but the bulk of the excavated assemblage appears to come from the lower part of the paleosol. No artifacts were encountered on the surface of the glacial till within the excavation; accordingly all of the artifacts observed on the adjacent eroded lag surface must originally have come from the overlying loess turf bank. These data suggest that the principal occupation of the site dates to the middle Holocene.

A sixth unit was placed over the eroded remnants of an apparently rock-lined hearth feature located between the turf banks. Because the upper portion of the feature has been stripped away, its origin could not be determined; however, given the density of flaking debris and tools in the lower portion of the buried soil, it seems likely that it originated at that level. Two charcoal samples directly associated with this feature—both consisting of willow stems burned when green—have been submitted for AMS radiocarbon dating.

The research team also carried out a controlled collection of stone tools and flaking debris from the eroded lag surface. This work identified several dense, compact clusters of flakes, three of which were collected for minimum analytical nodule analysis. Initial work with these debris aggregates indicate that they include flakes produced during initial core reduction as well as tools used for a variety of other tasks.

Immediately west of the site is a wetland fed by springs emerging from the base of the slope. Wetlands containing partially

results. Examination of excavated and surface-collected artifacts indicates that the site's occupants were producing multidirectional cores and early-stage bifaces, as well as smaller preforms or finished tools. The large number of retouched flake tools in the collection further indicates that a variety of activities other than tool manufacture took place at the site as well. A distinctive feature of the workshop is the presence of numerous artifacts—cores, tools, and debitage—made from exotic materials, including obsidian, high-quality orthoquartzites, and cherts from distant sources.

Top, Uncompahgre Cirque profile.

Bottom, members of the research team at Uncompahgre Peak.



The Gault Site Revisited: A Summary of the 2010 Field Season

Peter C. Condon

For a week in mid May, six PCGR members ventured into the hill country of Bell County, Texas, to join the Gault School of Archaeological Research in excavating the Gault site. This field session was marked with both nostalgia and surprise and heralded the return of PCRG to the site after an absence of eight years. Making the trip were Peter Condon, Chris Gilson, Chris Johnson, Maxine McBrinn, Kay Sargent, and Elaine Smith. Under the direction of Nancy Littlefield, Clark Wernecke, and Nora the cow, the crew opened the shelter on their first day and glimpsed the early-to-late Archaic-aged deposits dating between 3000 and 8000 B.C. After a brief introduction, the PCRG crew settled into 1 x 1 m units, continuing the work that Bruce Bradley and Exeter University had begun the previous month.

PCRG crew members excavated in a compact silt clay matrix rich with cores, flaked-stone tools, and pieces of debitage that characterized the Archaic deposit, stopping short of the underlying early Archaic/late Paleoindian Dalton horizon. Chris, Chris, and Peter excavated the Middle Archaic component while Maxine, Kay, and Elaine carefully mapped, piece plotted, and documented the early Archaic levels. When the shade of the shelter and the cool breeze of the electric fans became too much, crew members took turns water screening five-gallon buckets of excavated soil, carefully collecting and bagging any artifacts. Throughout the week-long field session, many exciting discoveries were made. Most notable being flaked-stone tools exhibiting finely retouched edges recovered from the early Archaic component and several Andice (Calf Creek) point fragments—for which the Gault site is so well known—from the middle Archaic component.

Evenings were spent wandering about Florence, dodging lithic debris by the knapping station, dining on home-cooked meals, and listening to live music. Despite a brief hiccup in the weather, the return to the Gault site was a success and once again provided the opportunity to join those that have come before in continuing a PCRG tradition and the chance to contribute to a broader understanding of this significant site.

Top right, Gault site shelter.

Middle right and right, PCRG crew members at work.

Darker soils are Middle Archaic deposits, while deeper and lighter-colored soils demarcate the early Archaic deposit. Elaine Smith is in orange; her Gault experience follows on Page 7.



PCRG Member News

Elaine Smith

I participated at the Gault site program last May. From day one, while sharing the physical work with PCRG members and others, I was mentally collecting ideas to construct meaningful lessons about the Clovis culture for elementary classrooms. Enrichment to the school day is something classroom teachers welcome, as additions are often made difficult by time and budget constraints. Here in Central New York, the month of June is a great month to ask teachers for lesson time in the classroom, as teachers are searching for ways to keep the class focused on learning, while the kids would rather be playing outside. Anything about Clovis, even the word Clovis, would be unknown to fifth graders here in CNY and likely, unknown to their teacher, too. Knowing this, I carried into the classroom photos, maps, charts, enough cash register tape for each kid to make a timeline, a video on Gault, and of course, a "Chuck-it." A "Chuck-it" is a long-handled scoop that is sold at pet stores for use in throwing tennis balls to dogs. At Gault, Clark Wernecke showed how a modern "Chuck-it" was a great tool to demonstrate the mechanical advantages of an atlatl. We also watched a video of the Gault Site, and Nancy Littlefield gave me a copy to bring home for classroom use. Then, there was the daily

chatter provided by team members. Field chatter is a great way to take in information and to later process. I say thanks to Clark, Nancy, and the team "chatterers" for the lesson material.

By the second and third lessons to the same kids, I grew satisfied with my efforts. Kids were asking meaningful questions, expressing themselves using a new set of terms and vocabulary, and were so excited to tell me that they were getting better with the "Chuck-it." I knew they would have outside play, so I encouraged them more by telling them to call it an atlatl, which they did.

An added note: One evening at Gault, while making a move to step out the front door of the house, I saw a rattlesnake with its head just inches from my bare feet. Although it was something I'd only seen in pictures before, I recognized it by the diamonds on its back. Quickly, I shut the door and sounded the alarm. "I think there is a rattlesnake lying out there!" Others with rattlesnake-wisdom went into action to deal with the critter. It was another opportunity to see how team members work together!

Don Owens

Mary Jo and I moved to Davenport, Washington, in 2007 to be near our daughter and her family. In 2010 we found a volunteer opportunity in the Channeled Scablands near our home, where we are recording sites for the BLM office in Spokane. So far the sites have all been stacked rock features, the most interesting of which is "Rustlers Corral" (shown at right).

The corral was made using a natural depression on top of a bluff. It is oval in shape and measures 150 x 180 ft. The west wall is made almost entirely of natural cap rock and boulders. As a part of this, the southwest corner relies on a two foot high rock rim and an approximately six foot drop off as a deterrent to escape. The north, south and east walls consist of rocks stacked in between and on top of existing boulders to complete the enclosure. These walls average 67 inches in height and 30 inches in width. Although the corral was built taking full advantage of natural features, a great deal of manual labor would have been required in constructing it. I can't imagine a rustler putting forth this kind of effort.

All exposed rock in the original wall exhibits a heavy coating of lichen. We definitely need more information on Inland Northwest lichens since they may be used for dating the site.



Rob Bozell

In February of 2010 Rob Bozell moved back to Nebraska and accepted a position with the Nebraska State Historical Society as Highway Archeology Program Manager. In that capacity he is coordinating Section 106 compliance efforts for archaeological and historic architectural resources involved in Nebraska Department of Roads/Federal Highway Administration undertakings across the state. He has also been involved with several on-going research projects in 2010 that may be of interest to PCRG members.

Bozell and Gayle Carlson co-edited *The Eagle Ridge Site and Early Eighteenth Century Indian-European Relations in Eastern Nebraska* [Central Plains Archeology, Volume 12 (1), 2010]. He contributed several chapters to the volume, including one on faunal remains co-authored with PCRG members Carl Falk and Amy Koch, and University of Nebraska graduate student James Colburn (see page 10 for additional information).

Bozell is also currently revising a chapter on modified and unmodified vertebrate remains from the Kansas Monument Site, a late eighteenth century Kitkahaki Pawnee village along the Republican River in north-central Kansas. The faunal study focuses on subsistence and economy in the broader context of early Euroamerican contact and Kitkahaki participation in the fur trade. This research opportunity evolved out of a collaborative effort between the University of Kansas (Mary Adair and Jack Hofman), Kansas State University (Donna Roper) and the Kansas State Historical Society (Bob Hoard) for a comprehensive study of Kansas Monument archaeology, ethnohis-

tory, and material culture. Systematic research at this village began in the 1940s by the University of Kansas under the direction of Carlyle S. Smith and was continued by the Kansas State Historical Society in the 1960s under Tom Witty. Additional excavations were carried in 2008 by the Kansas Archeology Training Program led by Adair, Roper, Hofman, and Hoard.

In 2010, Bozell, Falk and Eileen Johnson (Texas Tech University) completed a chapter titled "Native American Use of Animals on the North American Great Plains" which will appear in the book *Subsistence Economies of Indigenous North American Societies: A Handbook* (Bruce D. Smith, editor). The chapter is a broad overview of patterns in vertebrate procurement on the Plains from the Paleoindian through post-contact periods. The volume will be published by Smithsonian Institution Scholarly Press in 2011.

In 2010, Bozell continued work on several chapters of an upcoming 2011 Nebraska State Historical Society book on the 2002-2004 archaeological investigations at Engineer Cantonment, a few miles north of Omaha. Engineer Cantonment is the 1819-1820 winter quarters of the Major Stephen H. Long Expedition. The Long Expedition was a scientific endeavor and a great

deal of pioneering Great Plains plant and animal taxonomy and research took place during the expedition's nine-month stay at Engineer Cantonment. PCRG members Paul Picha, Amy Koch, and Carl Falk identified and reported on much of the animal remains from the site. The project is under the overall direction of Co-Principal Investigators Gayle Carlson and PCRG member Bob Poperl.



Top, partially excavated double fireplace discovered in center of cabin ruins at Engineer Cantonment.

Bottom, selection of artifacts recovered from Engineer Cantonment.



Richard and Michael Krause

Thanks to PCRG, the summer of my fifth year of retirement was memorable and productive. My son Michael and I participated in the Upper Crossing feature recording session (*see summary on page 4*). The bunkhouse at Upper Crossing was secure and comfortable, and the food was delicious. I didn't know Mark Mitchell was such a good cook. The mountains, mesas, and val-

Retirement of Norman Singer and Allen Maxwell. In *Anthropology At Alabama: Newsletter of the University of Alabama Department of Anthropology College of Arts and Sciences*. September 2010, Vol. 8, No.1.

Amy Koch

This year marked the 50th anniversary of the Nebraska Highway Archeology Program. I have been a part of the program for 17 years. To commemorate the occasion I collaborated with Nebraska State Historical Society and Nebraska Department of Roads staff and my husband, Rex (who is a secondary art teacher) to produce a popular poster.

I was a contributor to a cultural resources report entitled *Phase II and Phase III Archaeological Investigations at Site 25CD86/89 within the Nebraska Segment of the Keystone Pipeline Project Corridor, Cedar County, Nebraska*. John Schwegman and Kathryn Parker of American Resources Group, Ltd. in Carbondale, Illinois were co-authors. I wrote the chapter describing recovered faunal remains from 25CD86/89 a multi-component (Middle Woodland and Late Woodland/Great Oasis) site in northeastern Nebraska.

Noteworthy fieldwork included mapping and site assessment of the California Hill site with Nebraska State Historical Society archaeologists, Terry Steinacher and Gayle Carlson. This nationally significant site was a prominent crossing on the Oregon/California Trail. A portion of the site has undergone disturbance from cattle grazing but pristine trail ruts are still visible and preserved.



View from the bunkhouse, Upper Crossing project.

leys of the area were exceedingly beautiful, and the archaeological remains we recorded were interesting and challenging. The rectilinear and curvilinear stacked stone foundation walls we encountered were photographed and drawn to scale. Some of the single and multi-room rectilinear structures were accompanied by a few small fragments of Taos Incised pottery manufactured in the eleventh and twelfth centuries but ceramic fragments were not encountered in our work on circular or oval walled structures. Both should be sampled by future work in the area.

In addition to the Upper Crossing field work I presented two papers at the Plains Conference, and published three PCRG-related articles:

Plain Pots: A study of Late Woodland Pottery in Central Alabama. Jason Mann and Richard A Krause, *Bulletin 27, the Alabama Museum of Natural History*. November 30, 2009. Published 2010.

The Woodland-Mississippian Interface in Alabama, Ca. A.D. 1075-1200: An Adaptive Radiation? Richard A. Krause and Ned J. Jenkins, *Southeastern Archaeology* 28(2) Winter 2009. Published 2010.



Gayle Carlson and Terry Steinacher of the Nebraska State Historical Society heading northwest toward preserved ruts. Photo by Amy Koch.

Carl R. Falk

Although 2010 included little travel (other than brief personal trips to Savannah, GA and Brattleboro, VT), it was a busy year with major efforts on a number of multi-year projects and a continuing role on PCRG's Board of Directors: 14 years – but whose counting? In addition to minor contributions to the Upper Crossing analysis, work with Craig Johnson toward a planned report on the Initial Middle Missouri Jones Village site, and progress on the 2005 Menoken report, my primary efforts for PCRG have focused on Chief Looking's Village and Beacon Island.

During the past summer I completed basic analysis of fish bone from Chief Looking's Village and continued work with the modified bone and antler assemblage. Although the 2008 tests were limited (three 1 x 2 m units), nearly 3000 elements representing fish (12 genera), birds (18 genera), reptile (1 genus) and mammals (14 genera) are identified. The fish sample, dominated by smallmouth buffalo and bigmouth buffalo, comprises 40% of the identified vertebrate collection and over 75% of the fish bone is from a single feature. In October, PCRG member Paul Picha and I collaborated on the preparation of a paper for the 68th Annual Plains Anthropological Conference, "Revisiting Mandan Subsistence." The paper, part of a symposium organized by PCRG Research Director Mark Mitchell, was heavily influenced by work with the Chief Looking's Village materials and focused on Mandan seasonal use of river and floodplain resources during the late prehistoric period. In conjunction with the Chief Looking's Village analysis, I'm also continuing study of fish from On-A-Slant Village, combining the results of analysis of materials collected in 1980 by Stan Ahler with a sample recovered by Dennis Toom (University of North Dakota-Grand Forks) during the 1999-2001 field seasons. Information from both sites will contribute to a broader study of fish use during the late prehistoric and post-contact periods within the Knife-Heart and Cannonball regions and an improved understanding of native fish populations prior to the construction of the impoundments along the Missouri River in North Dakota.

Beginning in the spring, Dr. Holmes A. Semken, Jr. (Professor Emeritus, Department of Geoscience, University of Iowa, Iowa city) and I began working intensively with the non-bison component of the Beacon Island local fauna, especially materials from the Aggie Brown Member of the Oahe Formation. Although the identified sample included fish, amphibian, reptile and bird remains, the primary focus was on mammal. Of particular interest were darkly stained specimens that we believe are generally contemporaneous with the bison bonebed (and associated Agate Basin stone tools) and that may provide useful paleoecological indicators for the general period of site use. In addition to leporids, beaver and muskrat, the sample included 153 micromammal elements; 98% of the

micromammal sample consists of voles, including prairie vole, meadow vole, red-backed vole and eastern heather (or Ungava) vole. Only three of the darkly stained micromammal specimens are non-arvicoline: a deer mouse, a northern pocket gopher and a pocket mouse. At present the stained mammal remains from Aggie Brown deposits suggest the presence of a marsh or bog-like environment.

In addition to efforts for PCRG outlined above, I worked on a number of additional projects during the year. In April I completed an inventory and assessment of ca. 1600 potentially identifiable vertebrate specimens recovered from a multi-component (prehistoric/post-contact) site located in west central Minnesota. The materials, derived from a Phase II test by Trefoil Cultural and Environmental Heritage, Sauk Rapids, MN, included a mix of fish, reptile, bird and mammal – an assemblage somewhat different than normally recovered from village sites in the Dakotas. Of particular interest were comparatively large samples of snapping turtle, pond turtle, beaver, and muskrat bones. In August I completed a study of fish remains from the Engineer Cantonment located near Omaha, Nebraska (*see Rob Bozell's report, Page 8, for additional information*). Working again with PCRG members Bozell and Amy Koch, I contributed to "The Eagle Ridge Site and Early Eighteenth Century Indian-European Relations in Eastern Nebraska" (*Central Plains Archeology*, Volume 12, No. 1). The Eagle Ridge report also benefited greatly through peer reviews by PCRG members Tom Theissen and Dale Henning. Information regarding this and other reports is available at <http://www.nebraskahistory.org/archeo/napa/cpa.htm>. During the fall considerable time was devoted to revision of a contribution by Rob Bozell, myself and Eileen Johnson (Museum of Texas Tech University, Lubbock) to a volume edited by Bruce D. Smith scheduled for release in April 2011: *Subsistence Economies of Indigenous North American Societies: A Handbook* (Smithsonian Institution Scholarly Press). Finally, working with PCRG members Dale R. Henning and Paul Picha, I completed a reexamination of vertebrate materials from the Beals site, a multi-component Great Oasis/Woodland site in north-west Iowa. A report on this work is scheduled for completion mid-2011.

John Vicha

John Vicha in Chicago reports that there is "nothing much new with me." He is still working at the Field Museum, in the Library and on the floor doing tours of Egypt and the Pawnee Earth Lodge. This past fall he did a training session on Plains Village cultures. He would also like to say "hello" to the Kvammes, on behalf of Dr. Hass, the head of Anthropology at the Field Museum.

Craig Johnson

This has been an unusually busy year for me. Besides working full time at Minnesota Department of Transportation, I have made substantial progress on the site report for Jones Village (39CA3). Drafts of six chapters were completed by the end of the year. PCRG member Carl Falk is assisting with report organization and structure and he and Bob Nickel, also a PCRG member, are working on analyses of animal and plant remains. Jones Village is located in South Dakota, on the east bank of the Missouri River (now Lake Oahe) in Campbell County, a few miles south of the North Dakota border. This site represents the northern-most Initial Middle Missouri variant village. This frontier community, occupied ca. A.D. 1050-1200 can be considered a site-unit intrusion from the Initial Middle Missouri homeland some 100 miles to the south in the Pierre, South Dakota, area. The site also has relationships to the Late Woodland Menoken site east of Bismarck and to later Extended Middle Missouri villages in the North Dakota/South Dakota border region.

During the first four months of the year, I collected detailed ceramic data on Jones Village and three Initial variant sites in the Big Bend region (Dinehart, Jandreau, and Gilman) and one farther away near Sioux Falls, South Dakota (Brandon). The results of the analysis indicate that Jones Village is most similar to Brandon, followed in order by Dinehart, Jandreau, and Gilman. This raises interesting questions concerning the origin of the Jones villagers and why they established a community so far away from the other sites.

Earlier in the year, Mark Mitchell supervised collection of information on the chipped stone tools and flaking debris from the 1998 field season at Jones Village. The lab work was performed by Chris Johnston working in PCRG's Broomfield office. This information, along with the 1997 lithic assemblage, was combined to draw some conclusions about the tool stone materials reduced at the site and how this was accomplished. Knife River flint (KRF) is the dominant material at the site, comprising 85% – 90% of tool and debris samples. Other local and non-local stone from south-central and southwestern South Dakota reinforce the southern origin of the occupants of the site. Compared to other village sites near the site and in the Bismarck area, the occupants of Jones Village exploited KRF to a significantly greater degree, and did more per-

ussion flaking of larger pieces of KRF, despite the fact that it is much farther from the KRF quarries. This seems to support the idea that the Jones villagers established their community as a way-station in the long distance trade of substantial amounts of KRF to Initial Middle Missouri communities farther to the south and southeast.

I also spent a week in February at the South Dakota Archaeological Research Center in Rapid City collecting lithic raw material data from about a dozen sites excavated by Wesley Hurt and others over 50 years ago. This included the tools from the Arzberger site, which had been recently transferred to Rapid City. This effort is part of my ongoing analysis of Middle Missouri Plains Village lithic economies begun about 30 years ago, inspired by the ground-breaking work of Stan Ahler. Rose and Mike Fosha provided a place to stay and great meals, stretching my limited budget.

During this year's Plains Conference in Bismarck, I spent three days (and nights) collecting raw material data to compare with finished tool forms from five sites (Demery, Havens, Paul Brave, Shermer, and Huff) curated at the State Historical Society of North Dakota. These key sites were excavated and reported years ago, before the potential of chipped stone material analysis



Craig and the calipers: measuring vessel rims

was realized. Fern Swenson, Paul Picha, and Nancy Eley assisted me in working with the collections. I also collected raw materials to compare with the chipped stone flaking debris from the Ft. Lookout site, a recently excavated Initial Middle Missouri assemblage that Kerry Lip-pincott brought to the conference.

Jennie B. Lee and Craig M. Lee

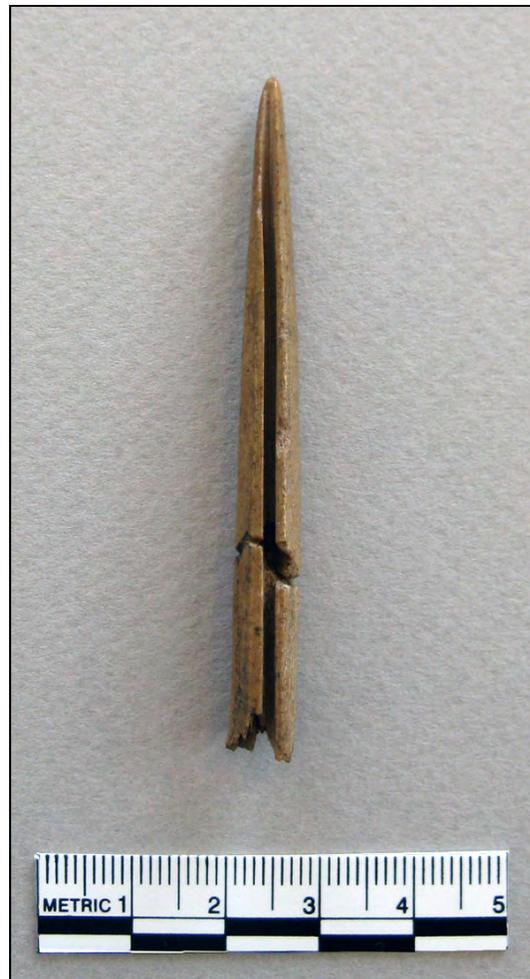
In addition to serving as Lab Manager and zooarchaeologist for Metcalf Archeological Consultants (MAC) in Denver, Colorado (<http://www.metcalfarchaeology.com>), Jennie has been managing a large pipeline project in eastern Wyoming. She has also been working with PCRG to write up the analysis of the Beacon Island bison remains. She and Stacey Bennett co-authored a paper (presented by Bennett) for the Plains Conference in Bismarck in October, describing the bison remains. Jennie was unable to attend the Plains Conference because she was in Trondheim, Norway, attending the Frozen Pasts Conference with Craig and Ella, their daughter. The conference was amazing and involved two field trips to ice patches where archaeological materials have been recovered (below).

Craig continues to serve as Research Director and Project Manager for MAC as well as a Research Associate at the Institute of Arctic and Alpine Research (INSTAAR). En route to Norway, he was able to visit the National Museum of Denmark in Copenhagen and microsample four carved antler projectile points, slotted for the insertion of microblades, for radiocarbon dating (see photo right). The points were collected in 1950 by Danish archaeologist, Helge Larsen at the Trail Creek Caves site on the Seward Peninsula, Alaska. Craig and Co-PI Ted Goebel (Center for the Study of the First Americans and Texas A&M University) have been working for the last several years to obtain access to the collection. The site is one of the cornerstones used to define the American Paleoarctic tradition/Denali complex. The analysis

will integrate with Craig's 2007 dissertation work and Ted's long-term interest in Beringian archaeology. Craig has also taken on an active role in the development and promotion of the Lamb Spring Archaeological Preserve (<http://www.douglas.co.us/lambspring/>), an internationally significant archaeological site located just outside Denver, Colorado, which contains bone beds of extinct Ice Age animals, and artifacts from later human occupation.

During 2010, Craig continued researching the prehistoric use of perennial snow and ice patches in Alaska, Colorado, Montana, and Wyoming, with support from the U.S. Forest Service and the National Park Service. Work

in Alaska was conducted with longtime USFS collaborator Jeremy Karchut and the Kenaitze Tribe on the Kenai Peninsula. Work in Glacier National Park was conducted with Co-PI Robert Kelly (Frisson Institute and University of Wyoming), the Confederated Salish and Kootenai Tribes, and the Blackfeet Nation. A short report on one of the older ice patch artifacts recovered in the Yellowstone area came out in *Antiquity's* online project gallery last summer (<http://antiquity.ac.uk/projgall/lee325/>). The Montana Archaeological Society used "ice patches" as the theme for their Archaeology Month poster for 2010. Copies are available from the Montana SHPO (dmurdo@mt.gov). Ice patch research in Colorado produced additional paleobiological specimens, but nothing related to cultural activity.



Antler microblade projectile point



In addition to organic artifacts (e.g., arrow and dart shafts), ice patches in Norway contain iron arrow points that can date up to 4,000-years-old, such as this one found during the Frozen Pasts Conference field trip (Photo: Craig Lee).

Eugene Gryba

On May 1, I was honored by the Archaeological Society of Alberta during its 34th Annual General Meeting with a series of papers which recognized my contributions to Paleoindian and lithic utilization studies, as well as archaeological surveys in northeastern Alberta. The Archaeological Society of Alberta Annual Meeting was held in Calgary in conjunction with the Canadian Archaeological Association Annual Meeting. The participants of that session included a number of local archaeologists, as well as Drs. Ruthann Knudson from Montana State University and Alice Kehoe from Milwaukee.

During the 2010 field season, I was employed by Stantec Consulting Ltd. I led a 4-6 person survey team searching for, and assessing, archaeological sites within the roughly 55 square mile Frontier Oilsands Lease 311. This project was located within pristine boreal Forest, around 150 km north-northwest of Ft. McMurray in northeastern Alberta. The project area extends from the base of the Birch Mountains on the west to within several kilometers of the Athabasca River on the east. A brief summary of the results of the 2008 field session in this area was presented in the PCRG Organization Report for 2008.

In general, the 2010 project proved to be a very challenging and exciting area to survey because it contains a diversity of terrain that is relatively difficult to access, and also by the fact that we were the first archaeologists to work in this part of the province. We worked in 20 day shifts that were interrupted by five day breaks when we flew back home to Calgary to be with family members. Depending upon the weather, the length of the

workday usually varied between 10 and 11 hours. As in 2008, access in 2010 to and within the oilsands was by helicopter, but ground mobility was entirely pedestrian. And, in 2010 the blackflies and mosquitoes seemed to be as numerous as they had been during the 2008 season.

Much of Lease 311 is situated on wave-washed till plain located within the ca. 9800 BP Glacial Lake McConnell basin. The southern part of the lease is dominated by knob and kettle terrain cut by 6-8 meter deep

drainage channels. It also contains the remains of numerous small ponds, now infilling again. Within the eastern and northeastern part of the lease, north-south oriented sand ridges, some measuring hundreds of meters in length and several hundred meters in breadth, rise 8-12 meters above the surrounding flat terrain. Most sand ridges support an open pine forest with a sparse understory of bearberry (kinnikinnick), blueberry, rose, soapberry and other shrubs, and are surrounded by open fen dominated by willows and sedges. That these conspicuous topographic features had made attractive campsite locations and travel corridors within what is today a rather inhospitable wet environment was amply demonstrated by the relatively great number of sites we discovered there during the 2008 and 2010 field seasons.

I employed a non-random sampling strategy in searching for sites and simply focused on landforms that on numerous

previous occasions had yielded evidence of prehistoric occupation. Within the knob and kettle terrain, points of land along lake shores and infilled ponds or drainage courses proved to hold high archaeological potential. We initially identified many sites by the tiny pressure flakes or bits of calcined bone we found in the screens during shovel tests.



Top, aerial view to southeast showing distribution of prehistoric sites on the high sand ridges in open fen in the northeast portion of the Frontier Oilsands Lease.

Bottom, shovel testing one of the high sand ridges. Red flags mark location of productive shovel tests.



We now have a total of 151 prehistoric sites and two recent historic sites recorded as a result of the 2008 and 2010 surveys of the Frontier Oilsands. More survey work is planned within Lease 311 during the coming field season. In the meantime, the areas that have already been investigated are being plotted on detailed LIDAR imagery. This information will help in the selection of new target areas for testing.



Detail of microblade core preform from the Eymundson Creek Valley

One noteworthy discovery we made during the 2010 survey was a grey chert microblade core preform (above). It was discovered in a site located along the north rim of Eymundson Creek Valley. The artifact is similar to the microblade cores which were recovered from the Little Pond site, located

some 60 km to the southeast on the east side of the Athabasca River. Also, we discovered additional sites at which localized activity areas were found, spaced generally from around 15 to 24 meters apart, suggesting that these sites had likely been occupied by at least two family units. This observation, however, remains to be verified through adequate excavations.

Work is continuing on the analysis and reporting of the results from the 2010 field season at the Frontier Oilsands Lease 311. Current indications are that the 2011 field season will be a very busy one in terms of archaeological work in the oilsands region of northeastern Alberta.

Work is continuing on the analysis and reporting of the results from the 2010 field season at the Frontier Oilsands Lease 311. Current indications are that the 2011 field season will be a very busy one in terms of archaeological work in the oilsands region of northeastern Alberta.

Kimberly Spurr and David Purcell

Kim spent most of the year in the field (again). First was the river trip through the Grand Canyon in February, working with the National Park Service to monitor the condition of archaeological sites along the Colorado River. It was a cold, dark trip, but she got to see some new areas of the canyon, a suitable trade-off, and David was able to hike down with her. Beginning in April, Kim worked excavating more than 50 burials from a prehistoric Basketmaker site in southern Utah, near Kanab, a project that carried her into early summer. She also worked at Canyon de Chelly for a month, documenting trails (prehistoric and historic) for the Park Service. In September she returned to Grand Canyon for a short excavation project. She finished off the year with a survey for a possible expansion of Walnut Canyon National Monument in Flagstaff.



David on the Bright Angel Trail in February

For David, the year began with a continuation of the powerline survey he started in 2007, working from January to October on writing reports (he authored or co-authored 26 different reports), with a few breaks for fieldwork in Ajo, Arizona, and Farmington, New Mexico. At final count, the project examined 4,700 miles of right-of-way and documented 2,000 sites. In May he directed a survey of 1,200 acres around Rogers Lake, west of Flagstaff, abutting a 25,000 acre military base he had surveyed in the 1990s. This beautiful area contains a large, seasonal lake, abundant wildlife (including bald eagles), and great views of the San Francisco Peaks; it has now been purchased by Coconino County for greenspace and wildlife habitat. In June, David directed a survey of 900 acres on the Arizona/Utah state line, finding 63 sites, instead of the five that were budgeted. In October, David returned to his previous position at Four Corners Research. The year ended with a survey in northeastern New Mexico on the Llano Estacado and Canadian River Valley.

In the fall of 2010, David became a Full Member of PCRG and was elected as Vice-President, replacing Kim who returned to her earlier duty as President of the Board. Since Kim is overextended, and David is under-employed, he took over the duty of preparing the PCRG Organization Report. He has also taken on organizing the 2011 Pecos Conference of Southwestern Archaeology, to be held at Mile-and-a-Half Lake, on the Kaibab National Forest north of Grand Canyon, August 11-14 (http://www.swanet.org/2011_pecos_conference).

Peter Leach

Down in St. Louis, Peter Leach continues to attend Friday Archaeology at Washington University, and Mound City Archaeology, when he can. His novel *Gone by Sundown*, set during the racial evictions of Ste. Genevieve, Missouri, in the 1930s, won the 6th Gival Press Novel Award-2010 and will be published this fall by a small press in Virginia. Among the main characters of the novel are the Ribeau brothers. During a field school in Ste. Genevieve, attended by Peter, excavations were conducted in the yard of the Ribeau brother's post-in-the-ground 18th Century French Colonial house. Only 10 centimeters below the barn, they found vials and bottles from the unlicensed veterinary practice of one of the brothers, Alonzo Ribeau.

John Craig

John Craig was busy in 2010, excavating at sites in southern Scotland. His field crew finished the John Paul Jones cottage project in Scotland in 2009, and the official report is in its final editing and formatting. In June, 2010, John worked at the Amisfield Tower, which was completed in 1600. Amisfield Tower is an excellent example of a fortified tower house of the type built following the Norman Invasion. The Norman Charteris family arrived in Scotland in 1066, with William the Conqueror, and was granted thousands of acres. The vast estate has changed hands just once, in 1847. At the request of the current owners, the Johnston family, the project was in-

vited to explore the surroundings of the tower for evidence of much earlier fortified structures on the premises. Preliminary tests in summer of 2010 around the tower turned up medieval pottery shards, but at a nearby deep ditch area, early iron age artifacts were exposed.

John reports that "We hope to return this summer and continue our search for 12th or 13th century dwellings and the links to Amisfield Tower."

Amisfield Tower, Scotland. (Photo: John Craig)



The 68th Annual Plains Anthropological Conference

Amy Bleier

The 68th Annual Plains Anthropological Conference took place October 6 – 9, 2010 in Bismarck, North Dakota. It was hosted by the State Historical Society of North Dakota and co-chaired by Research Archaeologist Amy Bleier and Chief Archaeologist Paul Picha. The conference included paper and poster sessions and symposia, a student paper competition, a ceramics workshop, a reception at the North Dakota Heritage Center, guided bus tours, and a banquet.

Sessions and symposia were held all day Thursday and Friday, and Saturday morning. Papers and posters covered a variety of topics, including archaeology, cultural anthropology, ethnology, history, linguistics, and physical anthropology. The competitive paper session featured research of undergraduate students. The ceramics workshop included demonstrations of prehistoric pottery manufacturing methods. Guided bus tours were Wednesday and Saturday. The day-long Wednesday tour traveled to the Knife River flint quarries in central North Dakota and the Double Ditch State Historic Site north of Bismarck. The Saturday afternoon tour featured Huff State Historic Site, Chief Looking's (Ward) Village, and Double Ditch, all along the Missouri River. The tours were led by archaeologists who have conducted research at these sites, including PCRG Research Director Mark D. Mitchell.

The featured speaker at the conference banquet was Dr. Elizabeth Fenn, the E. Blake Byrne Associate Professor of History at Duke University. Her field of study is early North America, focusing on epidemic disease, American Indian history, and social history. Fenn is working on a book entitled *Encounters at the Heart of the World: A History of the Mandan People* which explores the changes that swept the northern Great Plains in the eras of colonization and the early republic.

The conference was a success, thanks in large part to staff, volunteers, and sponsors! The number of registrants totaled 368, with several members of PCRG participating and in attendance. The conference is an annual event of the Plains Anthropological Society, a non-profit organization which promotes anthropological study of the Great Plains. More information about the Plains Anthropological Society is available at <www.ou.edu/cas/archsur/plainsanth>.

Seminar on Central Plains Subarea, ca. A.D. 700-1500

Dale Henning, Lauren Ritterbush, and Rob Bozell

November 6-7, 2010 saw approximately 30 archaeologists with interests in the Central Plains Late Prehistoric period assembled at the Visitor's Center at DeSoto Bend National Wildlife Refuge near Missouri Valley, Iowa. The reason for this gathering was shared interest in the late prehistory of the Central Plains Subarea, coupled with the desire to improve our understanding of information now available and to develop guidelines for future research. The sessions were organized and guided by Donna Roper and supported by the Iowa Office of the State Archaeologist (OSA), John Doershuk, Director. Lynn Alex, OSA, did yeoman service for this event; established the venue, set up the catering, made arrangements and maintained communications. The Wildlife Refuge was an excellent place to meet, with adequate space, good acoustics and, perhaps most importantly, few distractions. Special thanks go the Visitor's Center staff for their extra efforts on our behalf.

No formal papers were presented beyond some suggestions for organization and orientation. Discussion focused on the Central Plains tradition, its evolution, continuity, subsistence patterns, social organization, interrelations with other traditions and ultimate fate. Thus, the conversation ranged from the economy, technology, and social organization of the many scattered Central Plains households, to relationships with possible ancestral, contemporary, and descendant populations. These include groups associated with the Late Woodland period, Initial Middle Missouri tradition, Oneota, Initial Coalescent, Lower Loup and early Great Bend. Many discussions raised shared concerns, some of which were defined as goals or questions for additional research, including the

following: 1) What is the current state of our knowledge of the cultural complexes or traditions listed above? 2) Are our interpretations of these traditions methodologically sound? Are the assumptions that underlie our interpretations well reasoned and valid? 3) What should we do to further our understanding, how do we prioritize and what directions should appropriate research take? and, 4) Can working groups be developed to pursue some of the goals developed in the seminar? Prior to the sessions, Roper offered a list of relevant topics, including: chronology, taxonomy, ceramics, continuity of traditions and their interrelations through time, social organization and variations in subsistence/adaptive strategies.

While much time was spent in discussion of chronology, all of the other topics and more were brought into play, often as part of comments related to the sequences of events and our ability to establish, test, reject or confirm those sequences. A great deal of information pertinent to Central Plains late prehistory was aired over the hours; it seems fair to say that all learned a great deal. Surely none of us left without a felt (or assigned) obligation to pursue one or another aspect of Central Plains prehistory more intensively. One problem, that of developing a regional chronology, has already been addressed and vigorously attacked by our first working group. Thanks to research by various individuals, most recently Donna Roper and Mary Adair, and the organizational talents of Dan Pugh and several contributors, data relevant to over 484 radiocarbon assays from the subarea have been compiled. In addition, multiple lines of communication have been established and a great deal of information has been aired and shared.

This was, in our estimation, a perfect meeting. Not too long, reasonable in costs, informative, intense and challenging with an appropriate number of participants, each of whom made worthwhile contributions. This approach to sharing problems, knowledge and possible solutions is highly recommended.

Society for American Archaeology Awards W. Raymond Wood the Lifetime Achievement Award at the 76th Annual Meeting, Sacramento, California

PCRG member W. Raymond Wood is the 2011 recipient of the Society for American Archaeology (SAA) Lifetime Achievement Award, in recognition of his enduring recognized scholarship and his extensive service to the profession. The award was presented April 1 at the Awards Presentation and Annual Business Meeting in Sacramento. According to the meeting program,

Dr. Wood is an eminent figure in North American archaeology whose work in the Great Plains has deepened archaeological and ethnohistoric scholarship in the region. His many contributions to Plains archaeology range from Quaternary paleoecology and prehistoric settlement to historical cartography and the early fur trade. His early interdisciplinary collaborations set the standard for research on the human component of the Quaternary period. In addition to his own extensive publications, he has served as a highly effective editor of *Plains Anthropologist* and *American Antiquity*. In his teaching, research, and service-related activities, Dr. Wood has conveyed the importance of archaeological ethics and has emphasized engagement with avocational archaeologists.

Please join the PCRG Board in congratulating Dr. Wood on this prestigious honor.