

PaleoCultural Research Group Organization Report for 2007

It hardly seems possible that less than a year has passed since we last updated our members about the many changes taking place within PCRG. The first few months of 2007 witnessed a flurry of activity as we completed lab analyses and made arrangements to close the PCRG lab in Flagstaff. While most of our superb crew of students departed before the New Year, we relied on Tracy Ellefson and Austin Candella to tie up loose ends and begin the process of packing. We certainly could not have finished all these tasks without the dedication and skill of Stacey Madden, who served as Lab Supervisor but also assisted on many other aspects of the operation.

Our second decade of archaeological research moved forward with continued work at Larson Village, one of the best-preserved Mandan settlements in central North Dakota. In this report, Mark Mitchell presents an update on PCRG's research at the site and summarizes our current understanding of the village layout and occupation.

Although the work at Larson Village was the only field project undertaken in 2007, we made progress on final reports for the 2005 excavations at Menoken Village and analysis of vertebrate faunal remains from the Chinatown section of Deadwood, South Dakota. Early in the year we completed a final report on geophysical investigations at Double Ditch and undertook a project to match ceramic vessel rims across houses and trash areas at that site.

For the 2008 field season, we are working with the State Historical Society of North Dakota to finalize plans for geophysical investigation, topographic mapping, and small-

scale testing at another village site in the Heart Region near Bismarck, as well as microtopographic mapping at the Menoken Village site. We are also considering organizing additional field sessions at the Gault Site in the Texas hill country. Enclosed with this report you will find a list of Project Opportunities that we hope will be of interest.

Perhaps our biggest current challenge is a transfer of PCRG operations to Colorado. We are making plans to establish a new lab facility in the Denver area in 2008 that will provide adequate space for collection processing, analysis and report preparation and production. The new facility will allow PCRG to continue ongoing projects and seek new research opportunities that fit within the overall charter of our organization.

For the present, our mailing address remains the same: P.O. Box EE, Flagstaff, Arizona, 86002. Communications may be sent there or via email to <pcrg@infomagic.net>. Our phone number is (701) 426-0334. Membership records, fiscal records, and other formal documents and records of the Organization remain on file in Flagstaff, in accordance with

Delia and Tom Moder at the 2006 PCRG Christmas party in Flagstaff



State and Federal laws.

Sadly, the move to Colorado means the loss of our long-time administrative employee, Delia Moder. Delia has been a strong member of the PCRG team over the last few years, providing quick and reliable answers to our many administrative questions, along with the more mundane (but crucial) task of keeping our finances on track. We will miss Delia's professional efficiency, sharp wit, and easygoing personality. It is with genuine thanks to Delia and her husband Tom that we send our best wishes for all their future endeavors.

Finally, we are excited by another upcoming 'move'—namely the establishment of a web presence. We are developing a web site that will allow us to keep in closer contact with the membership. We hope this venture will be useful in keeping members updated on field and lab opportunities and related events, as well as on-going and new research by individual members. One main goal of the web site is to provide a venue for disseminating past and future PCRG research reports in electronic format for use by the archaeological community. We will notify members with a special mailing once the site is operational. The site address will be <www.Paleocultural.org>.

This year promises to bring some important changes for PCRG, but we move forward with optimism and knowledge that the organization remains strong. We appreciate the continued support from our dedicated members.

Kimberly Spurr, President/Treasurer
Mark D. Mitchell, Vice-President
Carl R. Falk, Secretary

Larson Village 2007

Mark D. Mitchell

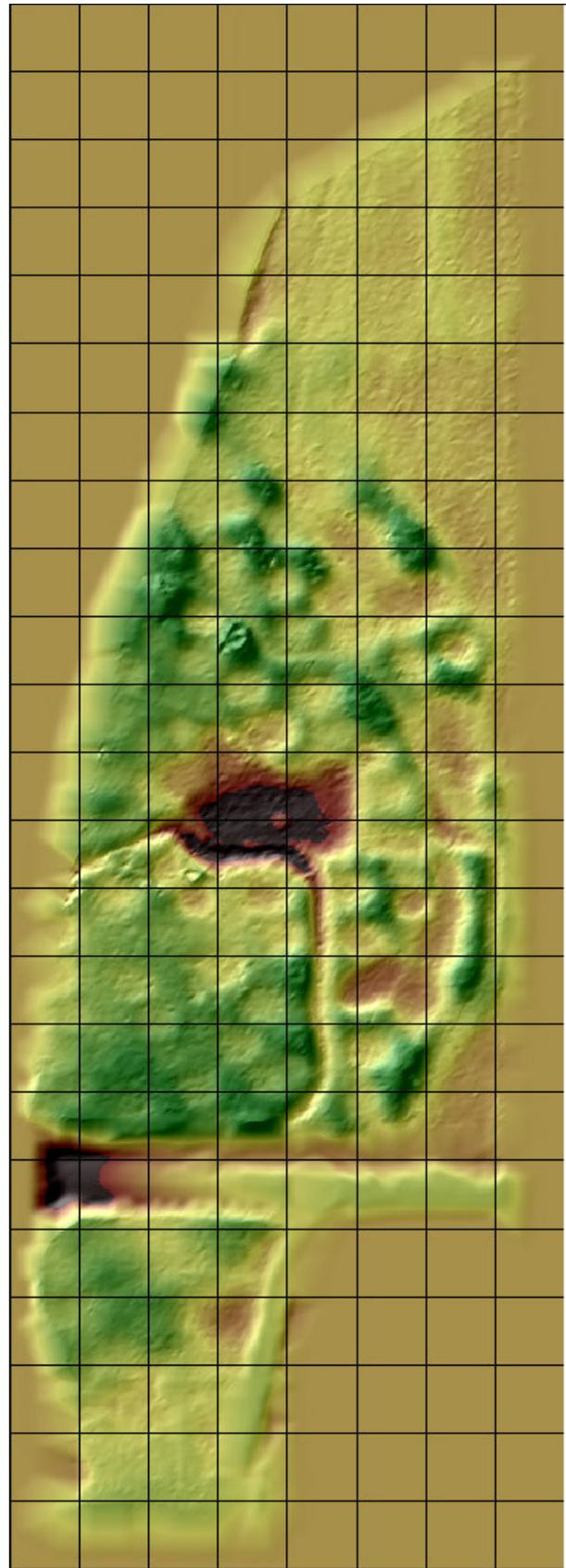
In 2007, PCRG continued work at Larson Village, a fortified earthlodge settlement located on the east bank of the Missouri River about 20 km north of Bismarck, North Dakota. During the 2006 field season, PCRG staff and volunteers excavated six test units and carried out magnetic gradiometry and electrical resistivity surveys covering about 1.5 ha (3.7 ac). This year, a small crew completed the magnetic gradiometry survey. The team also used a mixture of high- and low-tech methods to map the site and investigate selected subsurface features. Using a Trimble 5600 robotic total station, we created a high-resolution digital elevation model of the entire site. This map brought a variety of subtle surface features to life and provided new insights into the history and current condition of the site. We also used soil coring tools to explore selected magnetic anomalies in the center and on the periphery of the village. The primary goal of the 2007 fieldwork was to learn more about the overall layout and extent of the settlement and to answer several specific questions that came up during our analysis of the 2006 data.

The 2007 work at Larson was made possible by a grant from the State Historical Society of North Dakota. PCRG is grateful to the site's private landowner and leaseholder for giving permission to conduct this work. The research team consisted of PCRG members Mark Mitchell, Ken Kvamme, Fern Swenson, and Paul Picha, SHSND staff archaeologists Amy Bleier and Tim Reed, and University of Arkansas graduate student Duncan McKinnon.

Larson Village probably was founded about AD 1500, about the same time as Double Ditch Village, located less than 4 km away. Both villages have similar layouts. Like Double Ditch, Larson is surrounded by four concentric fortifications, the outermost of which was constructed



Duncan McKinnon working with the robotic total station

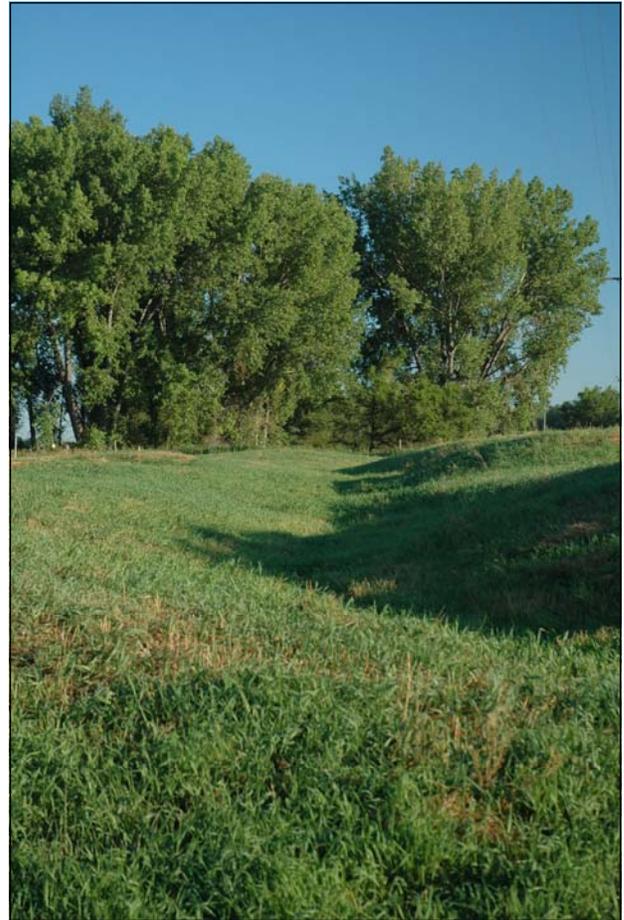


High-resolution digital elevation model of Larson Village

with bastions, semi-circular projections designed to help defend the palisade wall. These fortifications were constructed sequentially, with the size of each village contracting progressively over time. Both villages contain at least one central plaza, a public space used for social and ceremonial activities. Both are surrounded by a ring of high refuse mounds that at one time may have been incorporated into their defenses.

The material content of the villages is similar. The residents of each village made extensive use of smooth gray Tongue River silicified sediment for stone tools. This material is located 30 to 60 km to the southwest, on the tributaries of the Cannonball River. In addition to tropical cultigens, both communities raised sunflowers and marshelder. Fishing appears to have been a comparatively minor activity, but in general they enjoyed a more diverse diet than did their Hidatsa neighbors living to the north near the mouth of the Knife River.

In other respects, however, Larson and Double Ditch are markedly different. Data on the thickness of cultural deposits at Larson indicate that sediment and domestic debris accumulated progressively throughout the occupation of the village. At Double Ditch, such debris was periodically removed. At Larson, architectural features dat-



The swale of Ditch 1 at Larson Village



Ken Kvamme walking magnetometer transects at Larson

ing to the earliest period of occupation are preserved on the edge of the village, but at Double Ditch house floors and other features were obliterated by later activities. This suggests that the outlying parts of each village were used in rather different ways.

The 2007 fieldwork at Larson Village also produced some unexpected and intriguing results. Of particular interest is the apparent presence of a low, linear mound extending northward from the outermost fortification ditch. Roughly similar, though larger, linear mounds have been observed at Lower Hidatsa and at Big Hidatsa villages in the Knife region, but until now have not been

seen in the Heart region. The function or significance of these features is not known.

Coring data also demonstrated that several earthlodges likely were burned at the time the village was abandoned, sometime in the middle 18th century. Features and artifacts on the floors of these structures could therefore be relatively well preserved. As a consequence, Larson may be an excellent candidate for research focused on the eighteenth century occupation of the Heart region.

Except for Double Ditch, Larson is the best preserved of the post-1500 villages in the Heart region. More than half the site is in good condition. Moreover, Larson likely is unsurpassed in its preservation of cultural deposits dating to the 1500s. For that reason, additional research at Larson could prove to be critical for understanding the decisive cultural and economic changes that took place in the Heart region during the sixteenth century.

A final report summarizing the results of the 2006 fieldwork and subsequent artifact analyses was prepared during the summer and fall of 2007. This document will be one of the first made available electronically during 2008 on PCRГ's new website.

Hudson-Meng Excavations 2007

Mark P. Muñiz, Ph.D., RPA

The 2007 excavations at Hudson-Meng (25SX115) in Sioux County, Nebraska, marked the third consecutive year of PCRG involvement at this amazing Paleoindian site. In 2007 two PCRG members worked at the site—the site's Principal Investigator Mark P. Muñiz and stalwart excavator/camp manager extraordinaire Elaine Smith. In addition to PCRG involvement, Doug Bamforth directed the University of Colorado archaeological field school and rotated students through Hudson-Meng, the Forest Service Passport In Time (PIT) program supplied a number of great volunteers, Hannan LaGarry of Chadron State College helped in numerous ways, and the Denver Museum of Nature & Science loaned us Mel Grantham, a seasoned avocational archaeologist/paleontologist.

The primary goal of the 2007 Hudson-Meng field season was to continue excavating in the Enclosure Trench, North Block, and Southeast Block that were originally opened in 2005 under the direction of Stan Ahler, Mark Mitchell, and Stacy Madden. We also wanted to explore several new areas in the continuing quest to identify new cultural components and to search for a campsite that might be associated with the Alberta bison kill originally excavated in the 1970s by Larry Agenbroad.

Excavation units in the North Block were re-opened and the stratigraphy of these units was positively correlated with the Paleoindian paleosols and bison bonebed

PCRG member Elaine Smith excavating at Hudson-Meng



located to the south. Furthermore, a large bison metapodial was partially uncovered here, but due to the diving nature of the bone orientation we were unable to remove it before having to backfill the units. We plan to recover the bone and any associated faunal or cultural remains from this area during the 2008 field season.



Mark Muniz (standing left) with PIT volunteers and Brian Naze (University of Colorado, standing right)

The Enclosure Trench units are located immediately south of the Forest Service building and visitor center that covers a large exposed portion of the bison bonebed. In 2006, a newly identified Paleoindian-aged Eden component was discovered in the Enclosure Trench units. In 2007 we continued to excavate below the Eden level, carefully following a series of charcoal stains that in 2006 appeared to be a hearth. Excavation in 2007, along with macrobotanical analysis on recovered charcoal fragments, showed these stains are likely a natural dispersion of burned plant matter rather than a humanly constructed hearth. In a unit six meters to the west of the charcoal stains we discovered additional evidence of a cultural component that overlies the Eden level and represents either a Late Paleoindian or Early Archaic component. As yet there is no diagnostic artifact from this cultural component, however, a metapodial with clear cutmarks was recovered from this level. The stratigraphic relationship of the butchered metapodial to the Eden level indicates that the new component is younger than the Eden occupation. Considering the unusual concave based projectile points found at Hudson-Meng during the 1970s excavations, this new component may be related to people who made James Allen style projectile points.

Work also continued in the Southeast Block which was excavated in both 2005 and 2006. A careful comparison of the stratigraphy at the Southeast Block to that from the Enclosure Trench has positively established that the Paleoindian strata are intact here and thus the deepest

artifact-bearing level should theoretically belong to the Alberta, or an older, Paleoindian component. Lithic artifacts were recovered here in 2007 from the deep "Alberta" levels. A bulk sediment sample collected in 2005 from just above the deepest artifact-bearing level returned a date of $4,640 \pm 150$ (A-13958, humates) and almost certainly represents modern carbon contamination. Additional work is planned to expand the areal coverage of these units in 2008 in order to see more of the Paleoindian-aged surface.

In 2007 we also began excavation in three new areas and dug a large stratigraphic trench at a fourth location. The first of the new areas is inside the bonebed enclosure. The Forest Service approved our request to begin slowly excavating a single 1m^2 unit inside the enclosure building for the purpose of exposing a tall profile that contains one of the last undisturbed segments of stratigraphy inside the bonebed. This stratigraphic profile will eventually be correlated with deposits outside the building and the resulting analyses will help discern if there are multiple paleosols welding together as one moves from south to north over the bonebed. In the course of excavating this unit, we uncovered a thin cultural level containing small

lithic and bone flakes and charcoal located well above the bison bonebed. At this point it is unclear if this level is an extension of the same level we identified above the Eden component outside the building or if it represents yet another Late Paleoindian/Early Archaic cultural component.

The second new area where we initiated excavations in 2007 is at the junction of two very large trenches on the western side of the enclosure building. The goal of excavating here is to expose a tall stratigraphic profile that will ultimately intersect a paleosol that was dated between 10,300 and 10,700 RCYBP during the 1990s. This paleosol is of special interest because it is many hundreds of radiocarbon years older than the best estimates for the date of the Alberta bison kill (ca. 9,800 RCYBP) and may be direct evidence of multiple Paleoindian-aged paleosols that are welding together over the bonebed and ultimately compressing multiple human occupations into a relatively thin deposit. We encountered cultural material near the modern ground surface immediately after beginning to excavate in this unit and as such were only able to remove a few levels during the 2007 field season. We will continue working here in 2008.

The third new location that we tested is far to the south of the bonebed and is located on a sloping peninsular-

shaped landform near the head of the spring-fed valley. A test unit was originally placed here to explore the stratigraphy in this part of the valley and immediately encountered artifacts. The stratum containing the artifacts is much younger than the Paleoindian deposits we are primarily concerned with and we are currently estimating that it represents a Woodland or younger occupation. In addition to identifying a previously unknown cultural occupation area of the valley, this unit exposed a key stratigraphic profile that will be of great aid in understanding the landscape evolution at Hudson-Meng. Hannan LeGarry, a geologist from Chadron State College who is studying the geomorphology of the Hudson-Meng valley, referred to the stratigraphic profile of this unit as the "Rosetta Stone" that he was looking for to unlock the chronological relationship of several key strata.

The final new area that we explored in 2007 is a very tall stratigraphic trench that runs up the west side of the valley across from the main site parking area. This trench exposed spectacular deposits that had not been uncovered during any of the previous excavations at the site. The trench contains strata that pre-date the Alberta occupation by as much as several thousand years and appear to continue almost uninterrupted to the Late Prehistoric and Historic periods. This trench is incredibly important to understanding the landscape evolution and the relationship of the culture-bearing strata at Hudson-Meng. Although we were only able to give it cursory examination before the end of the field season, it will undoubtedly prove to be a very important key to unlocking the story of why people began to occupy the Hudson-Meng valley when they did. In addition to the wonderful stratigraphy contained in the trench, we also encountered bison remains just above the Alberta and Eden paleosols that we will further explore in 2008.

As this brief narrative demonstrates, the new discoveries made at Hudson-Meng have raised a host of new research questions for the site and in the course of trying to answer these questions we will undoubtedly make even more new discoveries. PaleoCultural Research Group has been directly involved in the new era of research at Hudson-Meng since 2005 and volunteers have played a key role in the success we have achieved. PCRG members are invited to continue learning about the Paleoindian cultures that once lived in the Hudson-Meng valley and encouraged to participate in the 2008 excavations. Please see the enclosed Opportunities page for additional information



Hannan LeGarry (Chadron State College) and CU students digging a stratigraphic trench

From Arizona to North Dakota

Stacey Madden

Although this is the 2007 report, I thought I would start with one of the last PCRG events of 2006. Our annual Christmas lunch was well attended by both past and present employees as well as out of town guests. The conveniently-timed analysis of Larson Village pottery and lithics allowed Mark Mitchell and George Crawford to be in town, as well as Stan's brother Henry. Although Stan's health was deteriorating by this time, he reserved his energy for the party and I know he enjoyed celebrating with everyone. It was a great opportunity for all of us to show our thanks and appreciation to the man who touched all of our lives.

As 2007 began, our lab work for Larson Village was coming to a close. With the artifact sorting completed, the contingent of student workers left to pursue other interests, which I can only assume did not include sorting. I am thankful to them and especially thankful to Tracy Ellefson for her dedication to PCRG throughout the years, in particular for her perseverance in finishing the flaking debris analysis for Larson Village under time constraints and episodic chaos as the lab was being dismantled around her.

The last few months in the Flagstaff lab were often quiet and solitary. My efforts were jointly dedicated to a Double Ditch vessel matching project for Mark Mitchell and packing lab equipment and materials. I started my work with PCRG as a student in 2003 sorting for Double Ditch, so it seemed fitting that my final project was also with Double Ditch. It was tough not having Stan there to answer my questions and tell me I was taping boxes incorrectly, but I was somehow able to manage.

As the lab became emptier and emptier, I was faced with the reality of unemployment. Although the summer did not bring any fieldwork, I was able to attend my first Pecos Conference, was treated to a visit by the Krause's on their way through Arizona, and was a guest at the



Stacey matching Double Ditch pottery in the PCRG lab in Flagstaff

wedding of Tracy Ellefson and Austin Candella (a PCRG love story). Little did I know that a cold north wind would soon be blowing my way.

In late summer, Fern Swenson of the SHSND contacted me regarding the Beacon Island project and wondered if I could help with the lab work. She was able to convince me that North Dakota winters are mild nowadays and that February is a lovely time of year. Oh ya betcha! Well here I am, it's February and I'm loving it. I am happy to be back in a lab and working with such a great project.

Having excavated at the Beacon Island site, I knew my attention to detail, problem solving abilities, and organizational skills would be put to the test. Thankfully, the staff at SHSND has welcomed me and provided a great workspace and environment for me to work my magic. Of course, this would be impossible without the efforts of a spectacular sorting crew, which includes Doug Wertz (who excavated at the site for one session), Dave Nix, and members of the SHSND archaeological staff.

Tracy Ellefson and Austin Candella at the 2006 PCRG Christmas party in Flagstaff



So many bags, so little time, in the SHSND lab



This project was a priority for Stan and continues to be a priority for PCRG and I am honored to be a part of its continuation. Not a day passes that I do not draw upon the skills, guidance, and knowledge that Stan instilled in me. I will be forever grateful to him for opening my life to the world of archaeology.

PCRG Member News

This year saw the publication of *Plains Village Archaeology: Bison-Hunting Farmers on the Central and Northern Plains*, edited by Stan Ahler and long-time PCRG member Marvin Kay. The volume, which honors Ray Wood's many achievements in Plains archaeology and ethnohistory, presents a cross section of cutting-edge research about the origins and internal developments of Plains Village peoples in the Central and Northern Plains. It documents how Plains Village culture emerged as a widespread and cohesive cultural adaptation from its roots in Late Plains Woodland cultures, as well as how it repeatedly was altered by internal and external forces. It also addresses the historical emergence of such peoples, greatly transformed, as the Wichitas, Omaha, Pawnees, Arikaras, Mandans, and Hidatsas. Thirteen of the book's 20 contributing authors are current PCRG members. To order copies of this volume, visit the University of Utah Press at <www.uofupress.com/>.



Ray Wood and William Hunt during the excavation of the block-house at Fort Clark in the summer of 2001.

Ray Wood offers this summary of his activities: "In a continuing effort to hone my excavation skills, I have volunteered for the past two summers to assist the North Dakota state paleontologist in excavation of late Cretaceous Mososaurs in the Pierre shale of southwestern and northeastern North Dakota. I am otherwise involved in preparing a manuscript for the State Historical Society of North Dakota that summarizes in non-technical terms the history and excavations conducted by the Society and by Stan Ahler for PCRG at Fort Clark State Historic Site -- the locale of the two trading posts (Fort Clark and Fort Primeau) that served the Mandan village of Mih-tutta-hang-kusch and, later, the Arikaras. It includes the sometimes involved task of integrating the historical, archaeological, and geophysical investigations that PCRG conducted at the site for several seasons."

John Vicha reports that he did no fieldwork this year but is still leading tours as a docent at the Field Museum. He encourages any PCRG members who are in the Chicago area to visit the new Ancient Americas exhibit at the museum, as it is quite well done.



Bob Gardner at the Temple of the Sun near Trujillo, Peru

Bob Gardner reports that he went to Peru last summer on an anthropology project researching belts being made in an unbroken weaving tradition from Pre-Columbian times. He visited master weavers in San Ignacio, located at 11,000 feet and reached after three hours of climbing on a narrow single-lane dirt road. Bob's photos were used in a museum catalog for an exhibit on weaving in Peru this past summer.



Peruvian master weaver with her textiles in San Ignacio

So Many Museums, So Little Time

Mark D. Mitchell

This year, my on-going research on 19th-century northern Plains pottery technology took me to the American Museum of Natural History in New York, the University of Pennsylvania Museum of Archaeology and Anthropology in Philadelphia, and the North Dakota Heritage Center in Bismarck. At AMNH I had the pleasure of poring over Gilbert Wilson's remarkably detailed ethnographic notes and studying the pots and potter's tools he collected. The week's research was capped off by a whirlwind three-day tour of Manhattan, the highlight of which was a too-brief visit to the Metropolitan Museum of Art.

Perhaps the most unexpected discovery came at the Pennsylvania Museum. In addition to several vessels made in the 1860s at Like-A-Fishhook Village, I was able to study what scholars have long believed to be two pots collected by Lewis and Clark during the winter of 1804-1805. At some point the pots had been broken and many of the body sherds lost. In attempting to refit the remaining pieces I discovered that in fact they came from a single boat-shaped vessel with two necks! Later, at the North Dakota Heritage Center, I came across a photograph taken at Like-A-Fishhook in 1879 showing two pots nearly identical to the one collected by Lewis and Clark. A brief note on these findings will be published later this year in *Expedition* magazine.

The bulk of the year was consumed by a variety of analysis and writing projects. In addition to work on the Larson Village project (described on pages 2 and 3), I continued my dissertation research on the organization of Mandan craft production. During the fall I finished writing a chapter on burned rock middens in southeastern Colorado that will appear in *Archaeological Landscapes of the High Plains*, edited by Laura L. Scheiber and Bonnie J. Clark. Laura and I also organized a symposium for the Society for American Archaeology annual meeting in Austin that was awarded an advanced seminar grant by the Amerind Foundation. In October, the seminar participants spent four days at the beautiful Amerind campus in Dagoon, Arizona, discussing American Indian culture change over the last 500 years. The resulting volume, *Across the Great Divide: Change and Continuity in Native North American Societies, 1400-1900*, likely will be published in 2009.

Ceramic vessel from Like-A-Fishhook Village



Mark assisting with geophysical work at Larson Village



Research Contributions of PaleoCultural Research Group

Following is a list of PCRG Research Contributions completed since mid-2006. PCRG assigns numbers to these documents to provide a permanent record of substantive research generated by members and to enhance the dissemination of information. Single copies of any Contribution are available upon request by PCRG members, subject to restrictions imposed by copyright laws, at cost for photocopying and shipping .

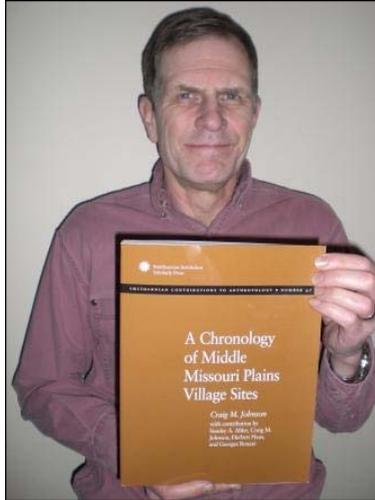
79. Mitchell, Mark D., Stacey Madden, Fern E. Swenson, and Stanley A. Ahler
2006 *The Archaeology of Larson Village, North Dakota: Results of the 2006 Field Investigations in Regional Context*. Paper presented at the 64th Plains Anthropological Conference, November 8-11, Topeka, Kansas.
80. Mitchell, Mark D. (editor), with 8 contributing authors
2007 *Geophysical Survey and Test Excavation During 2006 at Larson Village, Burleigh County, North Dakota*. Submitted to the State Historic Society of North Dakota, Bismarck. 230 pp.

Plains Village Dating Volume Published

Craig Johnson

It has been 15 years since a comprehensive research effort was begun to refine the dating of Plains Village sites located along the Missouri River in South Dakota and southern North Dakota. Throughout the intervening years, four revisions of the original 1994 manuscript were completed to incorporate additional information while waiting for the Smithsonian Institution to publish it. In that time, two reorganizations of the publishing arm of the Smithsonian Institution were made, slowing progress on publication.

Once I got the word from the editor, I had only about a month to get the galley proofs read, which was rather short considering the long wait. Finally in late 2007, the Smithsonian Institution Scholarly Press published *A Chronology of Middle Missouri Plains Village Sites*, appearing as Smithsonian Contributions to Anthropology Number 47. In addition to a soft-bound hard copy, there is also an on-line searchable version at the Smithsonian Institution Contributions to Anthropology web site. The



volume also has a radiocarbon dating chapter contributed by Stanley A. Ahler, Herbert Haas, and Georges Bonani.

This volume is the culmination of about 30 years of my work with Plains Village sites focusing on ceramic seriation and other techniques to date components, studies which are a necessary first step in our study of cultural process. In addition to extensive supporting data, the volume also includes a ceramic identification key which should be useful for any scholar of Middle Missouri ceramics. My approach to ceramic seriation was to find a common set of pottery types which reconciled the vast array of wares and types already defined for the Middle Missouri subarea. My use of multivariate statistical techniques to extract a few major patterns in large data sets had its beginning with my involvement with Stan Ahler in the mid-1970s. The volume clearly reflects Stan's influence on my work and, along with Carl Falk's support over the years, carries on the subarea research tradition they began in 1969. Although my only regret is

that Stan could not be here for its publication, his presence is evident in the book and will continue in my future research.

From Alaska to the Grand Canyon

Kimberly Spurr

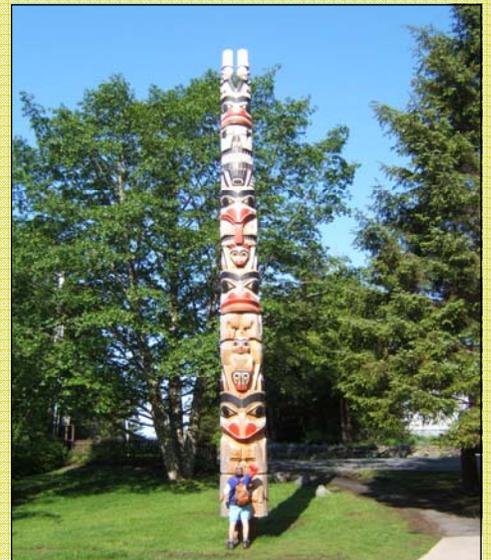
My spring was spent teaching anthropology classes at Northern Arizona University in Flagstaff and working on the myriad tasks involved in closing the PCRG lab in Flagstaff and transitioning to a smaller interim operation. In early June, I headed to southeastern Alaska for a quick family vacation that included totem poles, a backwoods cabin, and amazing scenery.

Late summer brought two months in southern New Mexico excavating an historic military cemetery that has been badly damaged by looting. A number of the burials were disinterred by the army in the 1880s, but nearly one-third remained at the abandoned post. The soldiers' remains will be reinterred in an active military cemetery where they will be protected from further disturbance.

I spent September and October excavating in the bottom of the Grand Canyon, collecting data from a prehistoric habitation site that cannot be stabilized due to severe erosion. Most of our work focused on exposing three large masonry rooms dating to AD 1150-1200 that exhibited multiple episodes of remodeling. The hard work and hot weather were rewarded with stunning canyon views and a bracing raft trip down the cold river. Additional excavation at another site in the canyon is scheduled for April and May, giving me something to look forward to over the winter.

Since early December I have been working in southern Arizona, helping excavate another historic cemetery in advance of urban construction. This cemetery served the early military and civilian population of Tucson, and originally held well more than 1000 burials. We are finding interesting patterns in mortuary behavior among the interments that offer a window into the multiple cultures inhabiting a mid-late 19th century western town. More information on this project is available at <www.pima.gov/JointCourts/>.

PCRG member David Purcell inspects a totem pole in Sitka, Alaska



The Tough Life of a Contract Archaeologist

Eugene Gryba

My 2007 field season commenced with the assessment of several small subdivision developments around Calgary. Those projects resulted in the discovery of two small precontact sites and a recent historic cellar depression and associated features. During the third week of April I flew to France, at the invitation of Dr. Bruce Bradley, to participate in a Solutrean lithic technology workshop with French, British and Portuguese archaeologists. The workshop was held on the grounds of a medieval castle in a village near Châtellerault in the heart of flint country between Paris and Bordeaux. I found this trip as rewarding as my involvement in the excavations and analysis of the Clovis material from the Gault site near Austin, Texas.



The 2007 Solutrean Workshop group in France

In June, I supervised excavations at a precontact site within a coal mine development in the Rocky Mountain Foothills in west-central Alberta. We recovered a lot of quartzite debitage, some bifacially flaked and edge retouched tools, but no diagnostic points.

From July to October I spent most of the time surveying oil sands related developments in the Boreal Forest region north and northwest of Fort McMurray in northeastern Alberta for FMA Heritage Consultants Inc. One of the projects, located within the Athabasca River valley immediately north of Fort McMurray, proved most challenging as there were abandoned river channels and the vegetation was exceedingly thick with numerous tree falls which made walking very difficult. In addition, the chest-high undergrowth was usually saturated with dew until midday. Perhaps worst of all was that the days in mid-July proved to be unseasonably hot. I quickly learned that four liters of water was not sufficient to last me all day. Despite these difficulties, my assistant and I recorded one small precontact site and five historic cabins.

But what we had endured along the Athabasca River

was later rewarded with one of the most exciting archaeological surveys I have yet completed in northern Alberta. That project entailed a preliminary survey of an oil sands development lease which extended over several townships along the northeastern edge and flank of the Birch Mountains, some 100 kilometers northwest of Fort McMurray. Access to the project area was entirely by helicopter. We were dropped off on seismic cut lines, drill pads, burnt over areas, and on open meadows or bogs. We encountered on this lease a broad variety of geomorphic features. They ranged from flat glaciolacustrine terrain crossed by shallow wide-open meltwater channels to steep-sided valleys deeply incised into bedrock formations. There were also half a dozen small lakes as well as numerous stony pine-forested drumlins. Many drumlins (or kames) measured 8-10 meters in height and from 30 to 500 meters across. We hit this project when the soapberries were at their sweetest. It was not a good year for blueberries, the cloudberries were past their prime as they were soft and mushy, and, although they were fairly plentiful, the bog cranberries proved bitter.

We employed a simple nonrandom sampling program during our Birch Mountains survey and sifted the predominantly sandy soil from most shovel tests through fine-mesh screens. This strategy allowed us to discover even tiny pressure flakes. Although many target areas I had identified on the photomosaics or had spotted from the air were not checked on this lease because of a lack of a close helicopter drop-off site, we still managed to discover 32 precontact sites. As typical of the Boreal Forest environment, the archaeological material occurred mainly within 30 centimeters of the surface. The only culturally diagnostic item we discovered was a crude side-notched biface made of the distinctive high quality grey quartzite that occurs naturally throughout the northern part of Alberta. I was really disappointed in not discovering any microblade components even though our survey was well within the geographic range of the microblade tradition. But most sites require more intensive assessment, and, besides, we had barely scratched the

Abandoned meander channel of the Athabasca River





Recording a precontact site on a drumlin on Birch Mountains



A small lake on the Birch Mountains where two precontact sites were discovered

surface of the lease. If economic conditions don't change for the worse, we plan more intensive assessment work on this property this coming summer.

In the middle of October, I assisted one of our junior permit holders on an assessment of a portion of an oil sands lease in the Fort MacKay area. We focused our attention on two small drainages carved into mainly glacio-lacustrine terrain on the west side of the Athabasca River. This resulted in the discovery of 15 small precontact sites. Somehow, I did find time before winter set in to search out a supply of mud-shale for knapping. It's a jet-black, very tough-to-flake rock that occurs in small concretions in the Rocky Mountains west of Cal-

gary.

Winter is the time for data analysis and preparation of reports on the different projects. I have promised Professor Brian Kooyman of the University of Calgary to give a presentation on lithic technology to his Lithics course students and to lead an advanced knapping workshop with members of the Alberta Archaeological Society. All this work will be climaxed later in the spring by a family trip to central Luzon, Philippines, to visit relatives. While there, I plan to hit beaches on the South China Sea, look for rocks, and gorge on vine-ripened tropical fruit before returning to Canada to face another field season. Boy, the life of a contract archaeologist sure is a tough one!



Erosion and Archaeological Sites

Wendy Munson Scullin

During 2007, Michael Scullin and Wendy Munson Scullin (Midwest Ethnohorticulture) began a three year study of soil-surface stability on archaeological sites in the Midwest and Great Plains. We are working with seven sites in Iowa, South Dakota and North Dakota which include private and public sites, heavily managed and little managed. The gradient in rainfall ranges from 15 to 30 or more inches per year. We are combining surveys of the vegetative cover and type, soil type, management practices, visitor use, soil erosion modeling, and measuring soil displacement directly. The goal is to determine how the vegetation and management at these sites protects them from erosion. We are looking at sites with everything from gully formation, undercutting of slopes by water and slumping, to sites which are subject to intentional neglect, grown up in grasses and invading junipers. Erosion, by our definition, can be subtle and difficult to perceive in the short term. We're learning more than we expected and are happy to have so many sites and cooperative people to work with. One of the things we have found to be the most damaging to sites (aside from farming) is intensive management.

We hope that consideration of the site as the primary artifact will come out of this research. We also believe that, by using low-cost survey methods and promoting bioengineering to stabilize sites, any improvements we propose will require less in cash and more in terms of behavior. We've encountered a little resistance along the way. All we can say is: we come in peace.

News from the Hills of South Central Pennsylvania

Carl R. Falk

In November, Julie and I continued our personal odyssey, with a move from Cape May, New Jersey to Fairfield, Pennsylvania. Our new home (and my office/lab) is located about 10 miles south west of historic Gettysburg. Needless to say, visitors are welcome.

My work on various PCRG projects, including the 2005 Menoken Village and 2006 Larson Village investigations, continued through 2007. In addition to assuming (with Fern Swenson, SHSND) various editorial chores, primary effort on Menoken was directed at chapters dealing with unmodified bone, modified bone and antler, radiocarbon dating, chipped stone tools and flaking debris, and minor artifact classes. For Larson Village, chapters on unmodified bone and modified bone and antler were completed in August and included in the field report prepared by Mark Mitchell (PCRG Research Contribution 80). Following descriptive analysis of the Larson sample, bone from Larson, Double Ditch, Boley, Menoken, and 26 additional North

Dakota sites was boxed, inventoried and shipped to Bismarck for final storage. Work also continued with vertebrate remains from the historic Chinatown section of Deadwood, South Dakota. With Julie's assistance, a sample of over 3,700 domestic goose, duck, chicken and turkey bones was sorted, identified and recorded. The next phase of the study will focus on late 19th century butchering practices as represented at Deadwood. This work was facilitated, in part, by a late June trip to work with comparative collections curated by the Department of Anthropology, University of Tennessee-Knoxville.

Additional research during the year included beginning work on a revision of a chapter dealing with animal resources and subsistence economies within the Great Plains that recently (2006) appeared in Volume 3 of the

Smithsonian Institution's *Handbook of North American Indians: Environment, Origins and Population* edited by Douglas H. Ubelaker. The new contribution -- by Rob Bozell (Archaeology Laboratory, Augustana College, Sioux Falls, SD), myself, and Eileen Johnson (Texas Tech University Museum, Lubbock) -- will appear in a forthcoming volume tentatively titled "North American Indian Economies" to be published through The Smithsonian Institution Scholarly press. I also began analysis of a sample of small fauna (primarily passerines) from site 5LA08658, a small rockshelter located within the Pinon Canyon Maneuver Site, Colorado. The site was tested by a New Mexico State University crew under the direction of Dr. Larry Loendorf.

The past year was a challenging one. For all of us, especially for his family, Stan's long illness and death in early February was difficult to accept. Stan was first a close friend, but also a colleague and collaborator for nearly 40 years. The phrase *'he will be missed'* is worn and insufficient but painfully accurate nonetheless. For me -- as well as for Kim, Mark, Stacey, Delia and many others -- much of 2007 was set aside to assist Stan's family

with disposition of his research papers and professional library. By October these efforts had resulted in the transfer of literally hundreds of boxes containing records, files, maps and other materials to appropriate repositories in Arkansas, Colorado, Missouri, North Dakota, South Dakota and Tennessee. With the Ahler family's support, Stan's library was inventoried, partitioned by area of

interest, and donated to the Division of Historic Preservation, State Historical Society of North Dakota and the Department of Sociology/Anthropology, East Tennessee State University, Johnson City, Tennessee. These gifts seem especially appropriate given Stan's strong links to the Tennessee Valley and his long-standing commitment to the anthropology of the Northern Plains.



Carl's PCRG storage area in New Jersey prior to shipping analyzed bone to North Dakota and his move to Pennsylvania

Mid-Latitude Icepatch Archeology and Life in Colorado

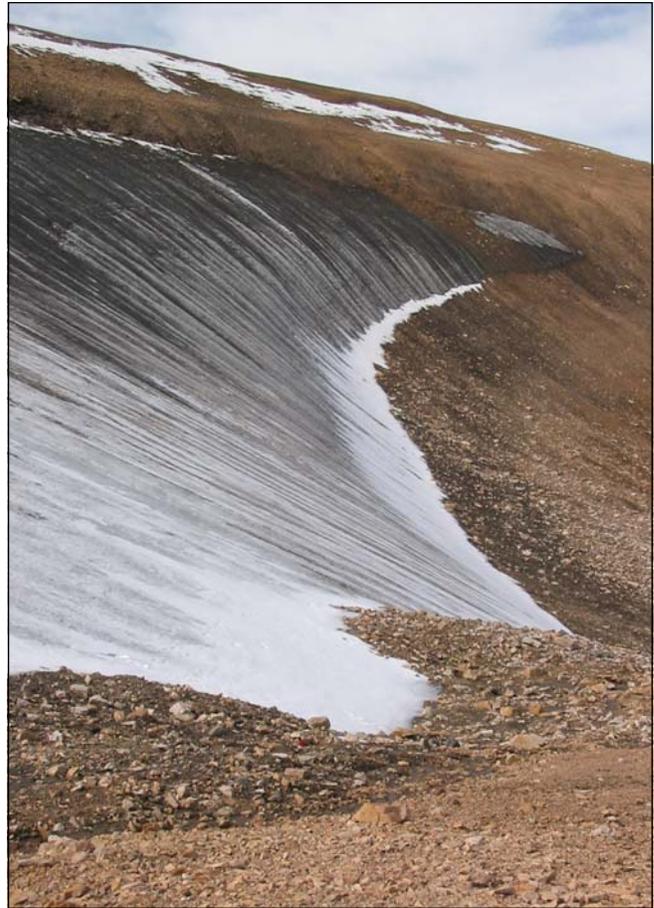
Jennie B. Lee and Craig M Lee

Jennie is the zooarcheologist and acting office manager for Metcalf Archeological Consultants, Inc. in Denver, Colorado. In addition to working on the faunal reports for two 100+ mile pipelines in Colorado and Wyoming, Jennie is continuing to analyze extant collections from the Agate Basin-age Frazier Site (5WL268) in northeastern Colorado.

In September, Craig defended his doctoral dissertation, entitled "Origin and Function of Early Holocene Microblade Technology in Southeast Alaska, USA." He was awarded a PhD from the University of Colorado in December.

In February Jennie and Craig welcomed the arrival of their first child, Ella Claire. She attended the SAA conference in Austin, but hasn't yet been on any field projects!

In 2007, Craig continued to research the prehistoric use of perennial snow and ice patches in Colorado, Montana and Wyoming, with support from the USDA Forest Service and the Cody Institute for Western American



Overview of melting ice patch containing cultural material



Distal end of atlatl foreshaft. Bracket is approximately 1.5 cm in length. Parallel arrows point to three grooves, likely "ownership marks."

Studies. As a result of global warming, archeological sites and paleontological specimens are being discovered in association with melting snow and ice resources around the world. Thus far, Craig's research has resulted in the recovery of spectacular and unique archeological materials such as atlatl darts and foreshafts, as well as ancient paleontological and paleobiological specimens. This untapped reservoir of information is in grave danger of destruction due to global warming. The simple, incontrovertible fact that ancient materials are being found in such locations demonstrates these once stable environments are experiencing atypical melting. Once exposed, the incredibly fragile and rare artifacts quickly rot and/or are in danger of theft. Additional research in the form of survey is planned for the 2008 field season, and opportunities may be available for PCRG members to participate in this unique project (see the enclosed Opportunities page).

Communiqué from a Lazy Correspondent

George Crawford

Since I have contributed very little to the annual report in the past, I thought I would sketch out some activities of an archaeologist at large. The years 2006 and 2007 involved some interesting and enlightening projects for me. After attending the Society of Primitive Technology annual gathering in southern Arizona with my daughter Bridgette in February 2006, we paid Stan a brief visit in Flagstaff on our way back to Missouri. As a result of those discussions, most of my summer of 2006 entailed excavations at Beacon Island in North Dakota with a couple of eventful side trips to the Black Hills. My attempt to volunteer at Hudson-Meng late in the summer was foiled due to raging grass fires in the vicinity. I was able to briefly return to Flagstaff after the summer to assess data from the 2002 and 2006 Beacon Island excavations and potential directions for future research at the site.

In the autumn, I was fortunate to record some remarkable sites in the Comb Ridge region of southeast Utah as part of a massive ongoing project undertaken by Winston Hurst and others to collect as much data as possible from a landscape covered with stone features, multi-storied habitations, kivas, and artifacts. Having focused on the Plains and Woodlands for the previous couple of years, I was awed by the variety of pottery, the sheer density of visible sites, and preservation of rare perishables in this environment. I returned to Flagstaff during the winter to work on analysis of lithics from Larson Village for Mark Mitchell.

My recent PCRG activities were limited to a small contribution to Mitchell's Larson Village report and lab work stemming from the 2006 Beacon Island excavations. I was able to travel to the North Dakota Heritage center in Bismarck to help process artifacts and data from Beacon Island,

working with Stacey Madden and Fern Swenson. We also created a base map of the excavations with information collected about the significant soil members. This will aid future analysis and create a visual context for study. I hope to continue working with this project, building on what we have learned so far, and integrating the results of the 2002 and 2006 field seasons.

Much of the remainder of 2007 was devoted to my interest in primitive technology, teaching and experimenting with various tools and processes of our ancestors. These activities were interspersed with trips to Arizona, New Mexico, Arkansas, and throughout Missouri for conferences, gatherings and resource collection. With luck, I will be able to continue my involvement with PCRG while pursuing my many other interests.



George Crawford demonstrating cord making at the Bois d'arc workshop in southern Missouri



John Craig excavating in Scotland—just how deep is that unit?

An Archaeological Excursion to Scotland

John Craig

In September I was asked to join a group of nine others to test the grounds of the boyhood cottage of John Paul Jones, who many consider the father of the US Navy, near Kirkbean in the far south of Scotland. The project was headed by Dr. Julie Schablitsky and funded by the First Landing Foundation of Virginia. Project goals were to verify the existence of significant archaeological remains from the mid-eighteenth century associated with daily activities, outbuildings, and landscaping of the cottage. This data will hopefully answer questions such as: what was everyday life like for the young John Paul? What did his boyhood home look, smell, and feel like? Did he indeed come from a pauper's home as we have been taught in elementary school? As with many digs, a few of the artifacts we sought were deep (about 80 cm) and found at the very end of the project. We are hopeful that the information we have retrieved thus far will lead to further work at the site. I remain hopeful to have the opportunity once again to join this elite team. You can learn more about the project if you go to <www.jpj.demon.co.uk>, and see a photo of me with a shovel by clicking on the "September 2007 Excavations" section.

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Panoramic view of the Hudson-Meng site, Nebraska (photo by Mark Mitchell)