CAHO

CURRENT ARCHAEOLOGICAL HAPPENINGS IN OREGON

A Quarterly Newsletter of the Association of Oregon Archaeologists

Volume 37, Number 2-3 **Summer-Fall 2012**

Courtesy Reprints:

O'Grady, Patrick, Margaret M. Helzer, and Scott P. Thomas
2012 A Glimpse into the 2012 University of Oregon Archaeology Field School at Rimrock Draw Rockshelter. *Current Archaeological Happenings in O*regon 37(2-3):4-7.

McDonough, Katelyn, Ian Luthe, Mark E. Swisher, Dennis L. Jenkins, Patrick O'Grady and Frances White
2012 ABCs at the Paisley Caves: Artifact, Bone, and Coprolite Distributions in Pre-Mazama Deposits. *Current Archaeological Happenings in O*regon 37(2-3):7-12.

CURRENT ARCHAEOLOGICAL HAPPENINGS IN OREGON

CAHO is published quarterly (March, June, September, and December) and is sent to all AOA members. The Association of Oregon Archaeologists is a non-profit scientific and educational organization dedicated to the protection and enhancement of prehistoric and historic archaeological sites. Dues are tax-deductible and are payable on a calendar-year basis.

Association of Oregon Archaeologists, c/o UO Museum of Natural & Cultural History
1224 University of Oregon, Eugene, OR 97403-1224
Membership Rates: Student $10.00, Regular $20.00

Back issues of CAHO may be ordered from the Treasurer for $2.50 each.
AOA WEB PAGE: http://www.associationoforegonarchaeologists.org/

A Glimpse into the 2012 University of Oregon Archaeology Field School at Rimrock Draw Rockshelter

by Patrick O'Grady, Margaret M. Helzer, and Scott P. Thomas

The 2011 fieldwork at Rimrock Draw Rockshelter (35HA3855) was originally brought to the attention of the CAHO readership by Provost and French (2011), who reported on the BLM-sponsored test excavations at the site in September of that year. During that session, three excavation units produced charcoal, debitage, edge-modified flakes, bifaces and other formed tools. Northern Side-notched points (ca. 7,000 to 4,000 BP), and Western Stemmed points (ca. 12,000-7,000 BP) were the only projectile points recovered within the rockshelter at that time, though a wider variety was collected from the landscape surrounding it. The artifacts were encountered through excavations that reached depths of 190 cm. Subsequent augering indicated that the deposits were considerably deeper. Following the 2011 work, we decided to return to the site with the 2012 University of Oregon (U of O) Archaeology Field School.

We convened in June of 2012 for a six-week school with a crew of 23 archaeology students gathered from across the United States (Figure 1), accompanied by four supervisors. Scott Thomas and Chuck Morlan of the Burns BLM were also on hand, providing support and additional supervision. During the first week, Clovis expert Michael F. Rondeau returned to offer his Paleoindian Lithic Workshop, now in its fifth year. Marge Helzer taught a three-week Paleoethnobotany (PEB) Field School alongside the archaeology field school (Figure 2). Six students attended, the maximum number possible for the available PEB facilities. We also had a strong turnout from the Oregon Archaeological Society, our well-trained and highly valued volunteer group based largely in the Portland-Vancouver area. At the peak of operations, we had 29 students, six teacher/supervisors, eight volunteers, and a variety of visiting researchers at the site . . . the place was buzzing!

The relationship between the paleoethnobotany and archaeology field schools proved to be very beneficial for both groups. The archaeology field crew had the luxury of being able to call "up the hill" to the PEB crew

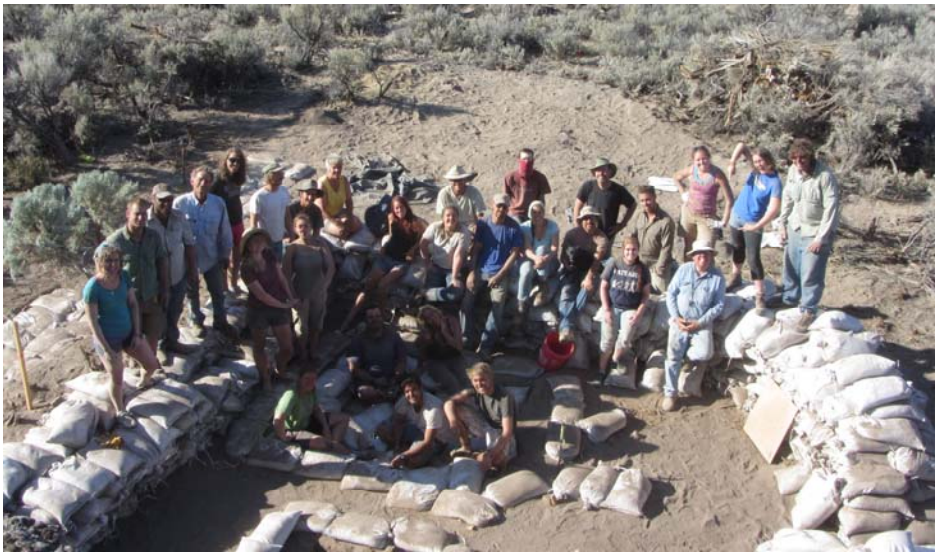

Figure 1. The 2012 U of O Archaeology Field School, resting after filling the excavation blocks with sandbags.

Figure 2. The 2012 Paleoethnobotanical Field School in front of the lab trailer.

Figure 3. A burned Scirpus (bulrush) seed from Unit 2, Quad D, 215 cm deep.

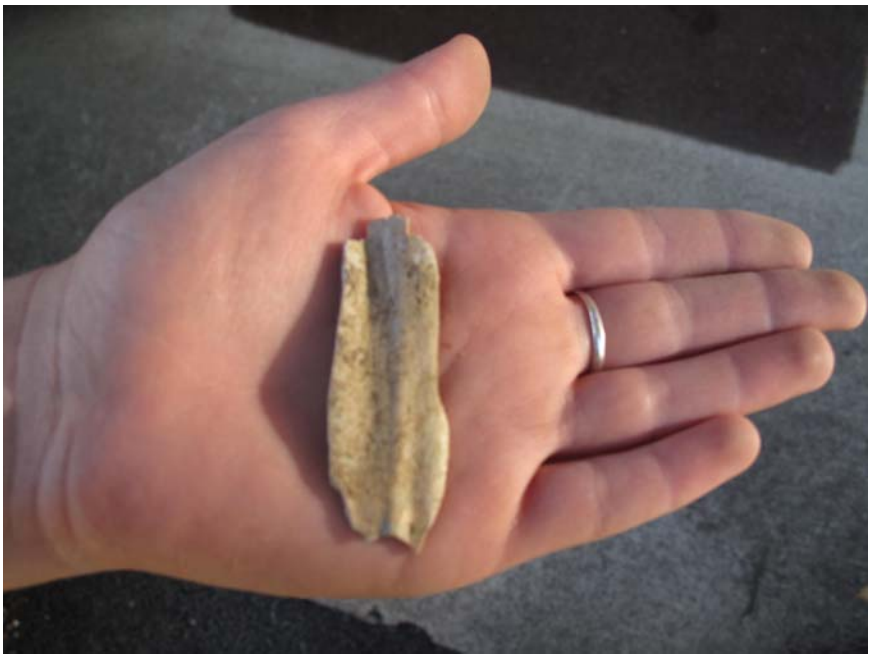

Figure 4. A large piece of tooth enamel collected in Unit 2 Quad C at a depth of 273 cm.

when an intriguing stain or hearth feature was encountered. They would troop down to the site to collect samples and discuss their context with the archaeology crew. Returning to the lab trailer, the PEB crew would conduct sediment flotation on the spot to extract botanical remains, and the archaeologists would have preliminary information regarding the contents of the samples in one to two days. The interdisciplinary nature of this interaction is in keeping with a tradition first established for the field school by Luther Cressman and carried on through the years by Mel Aikens and Dennis Jenkins. We regularly offer geoarchaeology field instruction as a part of our interdisciplinary focus, but the PEB program was new. The course will be offered again in 2013. The most significant finds from the 2012 botanical work were burned fragments of chenopods, wada, willow, and bulrush (Figure 3). All are edible or utilitarian genera and the latter two offer a view of the riparian environmental conditions at the time of site occupation. Wada is a lakeside plant species that may have been brought to the site for consumption. The burned bulrush seeds are being submitted for radiocarbon dating.

The archaeologists excavated 12 new units during the field school: 11 that were 1x2 m in size, and a 2x2. Unit 2, a 2x2 started in September of 2011 that reached a depth of 190 cm, was reopened with the expectation that we would reach bottom during the six-week field school. That did not prove to be the case. The new units were established at the east, central, and west portions of the rockshelter to enhance our understanding of deposits across the site. Along with the excavation, extensive pedestrian surveys were made of the ground surface surrounding the rockshelter to learn about the distribution and composition of lithic scatters.

The results were encouraging. The surface surveys yielded more stemmed points. Two distinct artifact concentrations were identified that produced two fluted bifaces, one concave base point, 14 overshot flakes, two unfinished bifaces with overshot scars, a spurred tool, and other artifacts consistent with fluted point technology (Rondeau, personal communication). We noted lithics suggestive of fluted technology in previous surveys, but the concentrations found this summer indicate a more substantial presence than we realized.

The rockshelter excavations revealed a three-part stratigraphic series consisting of eolian sediments underlain by a dense series of silty clay layers, which, in turn, are underlain by an orange sandy clay layer extending to bedrock. The ca. 170 cm-thick eolian deposit has a high degree of mixing, but our work also indicated that there is a consistent 1000 year-old component a meter below the surface across the site with the ca. 1300 year-old Newberry pumice underneath (Foit 2012), and another 4000 year-old component near the bottom. Below that is the second stratum; a series of clays, silts, sands, and occasional lenses of tephra that, thus far, contain nothing more

recent than stemmed points in the 7,000 to 12,000 year range. One Haskett point was found in the deepest sediments of this stratum. Two hearth features were also found, which produced the burned willow twigs and bulrush seeds mentioned above. Eight tephra samples from this layer have been submitted to Washington State University for analysis.

Within Unit 2, there are concentrations of roof fall in two separate, deep layers, offering indications of structural changes through time that may have capped and protected deeper deposits. The deepest and most massive of these ancient collapses prevented our progress beyond ca. 250 cm this summer. We decided to return for two additional weeks of work in September, supported by funding provided through Scott Thomas of the Burns BLM and Stan McDonald, the lead archaeologist for the BLM in Oregon. Terry Paddock, a volunteer of long standing at Paisley Caves and former Paisley field school student, arrived in advance of the team to split and remove boulders prior to the September excavations. He exposed the third sediment package, the orange sand/clay layer that was sparsely populated with cultural material. This layer extended to ca. 330 cm before terminating on weathering bedrock. Within the deposit were a few pieces of debitage and one thick cortex flake of chalcedony modified into a tool. The translucent, caramel-colored flake is convex and rectangular, with a single, worn edge with pronounced serrations from rough flaking that were smooth and uniform in height from use, suggesting that cutting was the primary activity for this artifact. The tool was found 285 cm below datum (275 cm deep).

Multiple large tooth enamel fragments were found above the chalcedony artifact, including one concentration at 273 cm and a single piece at 260 cm. Dr. Edward Davis, manager of the U of O Museum of Natural & Cultural History Condon paleontological collection, assisted in the identification of the specimens utilizing the museum's fossil and contemporary comparative collections. The tooth enamel fragments lack clear diagnostic attributes, but share more similarities with camel than horse and are undoubtedly Pleistocene in age. The relationship of the tooth fragments to the flake tool is not clear, complicated by the fact that all were deposited in a rocky stratum where the sequence of deposition is tough to decipher. The discovery of the cultural items in close proximity to Pleistocene fauna, all underlying a dense accumulation of roof fall, is very compelling.

Rimrock Draw has already proven to be a highly significant site, but much more is in store. The field school will be returning again in 2013. By the end of the summer session, the 2012 excavators succeeded in removing most of the eolian sediments in the new units. Next year's excavators will be reopening the units and working into the stemmed point deposits (and beyond) over the course of six weeks. The PEB field school will begin its second year of operation, again offering instruction for up to six students. We also plan to offer two geoarchaeology field schools including a six-week course for undergraduate students and a three-week advanced course for graduate students. Mike Rondeau will return to teach his Paleoindian Lithics workshop.

It is clear that there is still much to learn at this site. The presence of a distinct stemmed point component deep in the deposits is reason enough to return. Artifacts that have associations with fluted point technology are now being found in concentrations on the surface and it is possible that similar material may be recovered in the rockshelter itself. The chalcedony flake tool in the proximity to Pleistocene faunal remains, all of which were buried and separated by heavy roof fall, offers a good reason for optimism about what 2013 might bring.

Acknowledgements: The University of Oregon Archaeology Field School receives annual funding from the Department of Anthropology and the Museum of Natural and Cultural History, and operates under the administration of the Academic Extension Program (formerly Summer Sessions). The field school also receives annual funding from the U. S. Department of the Interior, Bureau of Land Management, under the Clovis Quest and Climate Change programs. Scott Thomas of the Burns BLM was directly responsible for securing this funding, for employing the services of Terry Paddock, and for the tephra analyses. George Wingard graciously provided the trailer that was used for the PEB lab.

References Cited

Foit, Franklin
2012 Letter Report of two tephra samples submitted from Rimrock Draw Rockshelter (35HA3855). Washington State University School of Earth and Environmental Sciences, Pullman.

Provost, Kelsey, and Jessica French
2011 Rimrock Draw Rockshelter (35HA3855): A Summary of Recent Fieldwork at a Stemmed Point Site Near Riley, Oregon. *Current Archaeological Happenings in Oregon* 36(4):4-8.

Rondeau, Michael F.
2012 Personal Communication: Email dated October 10, 2012.

. . . . . .

ABCs at the Paisley Caves: Artifact, Bone, and Coprolite Distributions in Pre-Mazama Deposits

Katelyn McDonough, Ian Luthe, Mark E. Swisher, Dennis L. Jenkins, Patrick O'Grady and Frances White
Museum of Natural and Cultural History & Department of Anthropology, University of Oregon, Eugene, Oregon

The Paisley 5 Mile Point Caves is a world-class heritage site where the earliest directly-dated human remains (DNA) yet discovered in the Western Hemisphere were found in human coprolites dated to 14,280 cal. BP (Gilbert et al. 2008). More recently, projectile points of the Western Stemmed series have been excavated from well-stratified deposits, dating from 12,800 to 13,000 cal. BP (Jenkins et al. 2012a). Bone fragments of many large extinct and extant mammals have also been preserved in early deposits, but the relationship between cultural and faunal remains is still unclear. To examine this relationship, and to investigate the human utilization of large mammal resources during the terminal Pleistocene through Early Holocene period, we statistically analyzed the distributions of artifacts, bones, and coprolites (ABCs) as they occurred below Mount Mazama tephra.

The Paisley Caves are located near the town of Paisley in the Summer Lake Basin of south-central Oregon. Research at this site has primarily focused on three of the eight caves and rockshelters that were eroded into a ridge of scoriacious basalt by wave action from pluvial Lake Chewaucan (Figure 1). The first professional excavations here were carried out under the direction of Luther Cressman between 1938 and 1940 (Cressman et al. 1940). Cressman discovered proof of human occupation in the region, predating the eruption of Mount Mazama (ca. 7,600 cal. BP). He also believed he had established associations of cultural materials with Pleistocene megafauna, and found evidence that humans had exploited these animals. However, these claims were disputed due to a lack of precise provenience records, and inadequate quantification of the excavated materials (Heizer and Baumhoff 1970:5; Krieger 1944; Jennings 1986:115).

Following Cressman's work, the caves were not professionally excavated again until 2002. The University of Oregon has since completed six seasons of excavations at the site. During this time, the issue of human and megafauna contemporaneity has been resolved (Jenkins 2007, Gilbert et al. 2008, Jenkins et al. 2012a). Meticulous excavation and analysis methods have shown that cultural and megafauna remains occur in horizontal, vertical, and stratigraphic association in the caves (Jenkins 2007: 75, Jenkins et al. 2012b). Dates obtained for ancient human coprolites (14,280 cal. BP), in association with Western Stemmed projectile points (12,800-13,000 cal. BP), a polished hand stone tool exhibiting *Equus* protein (14,525 cal. BP), a polished and battered hand stone exhibiting proboscidean (elephant-related) protein, grass and Apiacea pollen and starch granules, and an edge-modified