



# THE UPAC NEWS

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James D. Wilde, President

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Betsy L. Tipps, Editor

## UTAH SHPO SPONSORS HABS/HAER WORKSHOP IN SALT LAKE CITY

The Utah State Historic Preservation Office (SHPO) sponsored a pilot workshop on the Historic American Building Survey (HABS) and Historic American Engineering Record (HAER) programs on March 29, 1989, in Salt Lake City. National Park Service (NPS) employees Greg Kendrick and Tom Kohan, who review HABS/HAER documentation for the Rocky Mountain Regional Office of the NPS, presented most of the workshop. This was the first time that the NPS has presented a workshop on HABS/HAER documentation. The NPS may offer it again in other states in the near future. A wide variety of participants from Utah, Idaho, Wyoming and Colorado attended the workshop.

The HABS/HAER program is a documentation procedure for historic structures jointly operated by the Library of Congress and the American Institute of Architects with documentation reviewed and administered by the National Park Service. The HABS program was initiated by the National Park Service in 1933 and offers summer training for student architects and historians on NPS and other federal agency projects. The HAER program began in 1969 and was modeled after the successful HABS program. It documents America's industrial, engineering and technological heritage. HABS/HAER documentation is also conducted in conjunction with mitigation activities for Section 106 compliance.

Four levels of documentation exist within HABS/HAER procedures. These range from minimal documentation consisting of a one-page summary sheet to extensive narrative histories, engineering drawings and archival photographs. The level of documentation depends on the significance of the site being documented with only approximately 3% of all structures recorded at the most extensive level.

Details on photographic documentation, archival drawings, HABS/HAER documentation levels, review procedures by the National Park Service and mitigation requirements of Section 106 were presented at the workshop. The workshop was very successful and provided information on the programs which should assist consultants and agencies who conduct the documentation as well as the SHPO who provides assistance and recommendations on the significance and levels of documentation for various sites being recorded. Anyone interested in HABS/HAER may contact Diana Christensen at the Utah SHPO (801-533-7039) to obtain information provided at the workshop and data on specific projects and sites in Utah, or Greg Kendrick of the National Park Service (303-969-2875) for specific details and procedures of the programs.

-Diana Christensen

## UPAC PLANS SUMMER MEETINGS WITH USAS IN ST. GEORGE

The 1989 summer UPAC meetings will be held at the Four Seasons Inn in St. George, Utah, on Friday, June 16, in conjunction with the Utah Statewide Archaeological Society's (USAS) annual meetings. We will have a regular UPAC business meeting starting at 1:30 in the afternoon. I encourage you to participate in the host of after-meeting and weekend activities planned by USAS.

The St. George Chapter of USAS has graciously reserved a block of rooms for both UPAC and USAS

members. Reservations at the Four Seasons Inn can be made until June 1, 1989, at the following rates:

Type of Room	Group Rate
Single Occupancy	\$35.00 plus tax
Double Occupancy	\$40.00 plus tax
Triple Occupancy	\$45.00 plus tax
Quad Occupancy	\$50.00 plus tax

Regular room rates (no discounts) will obtain after June 1.

Direct correspondence to: Four Seasons Inn and Convention Center, 747 East St. George Blvd., St. George, Utah 84770. Telephone: 1-800-635-4441 or 1-800-673-6111.

#### UPAC MEETING AGENDA

- 1:30 p.m. Meeting open  
 Winter meeting minutes  
 Treasurer/financial report

#### Old Business

1. Election Results: new officers begin terms
2. Utah Archeology
3. Antiquities Advisory Committee
4. Tax free status
5. Bylaw amendments
6. Other business

#### New Business

1. Code of Ethics
2. I-70 turmoil
3. USAS Inventory
4. Agency reports
5. Committee reports
6. Meeting schedule changes
7. Other business

4:30 p.m. Meeting closed

If you wish to discuss some other issue at the business meeting, please contact me as soon as possible at 801-378-7123.

-James D. Wilde

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#### THE UPAC NEWS

The *UPAC News* is a quarterly publication of the Utah Professional Archeological Council, 105 Allen Hall, Brigham Young University, Provo, Utah 84602, 801-378-7123. James D. Wilde, President (Brigham Young University), Betsy L. Tipps, Editor (P-III Associates, Inc.).

The *UPAC News* is distributed free to all members of the Utah Professional Archeological Council. UPAC accepts contributions towards the publication of the newsletter at any time. Correspondence relating to subscriptions, memberships or address change should be submitted to Chas Cartwright, UPAC Vice President for Membership and Ethics, P.O. Box 555, Moab, Utah 84532. Information for publication in the newsletter should be addressed to the new editor, Diana Christensen, Editor, *UPAC News*, 242 East 600 North, Kaysville, Utah 84037. Material for the next issue should be submitted by August 4, 1989.

## NEW OFFICERS ELECTED

The results of the recent UPAC elections are as follows: Vice President for Research, Steve Simms, Utah State University; Secretary, Shelley Smith, Bureau of Land Management; Newsletter Editor, Diana Christensen, Utah Division of State History. Simms and Smith will serve for a period of two years. The editor position has a duration of one year and may be held for up to five successive years. Ballots were sent to all members who were current on their dues as of February. A total of 77 ballots was mailed; 35 or 45% were returned and counted. Thanks to everyone who participated in the elections and congratulations to the election winners.

## UPAC VOTES FOR NEW MEETING SCHEDULE

At the last UPAC business meeting, President James Wilde proposed that UPAC change the meeting schedule from winter/summer to spring/fall. It was hoped that the revised schedule would reduce scheduling conflicts with summer fieldwork and allow more members to attend both meetings each year. Lack of attendance at the summer meetings has been bothersome because business could not always be settled due to lack of a quorum. The issue of changing the meeting schedule was put to vote earlier this year with 23 opting to change the schedule and 9 voting to keep it the same. Scheduling of future meetings according to this new regime will be discussed at the summer meetings.

## UTAH HOLDS SECOND ANNUAL ARCHAEOLOGY WEEK

April 10-16, 1989, was proclaimed Utah Archaeology Week by Governor Norman Bangert. Sponsored by the Utah Division of State History, the National Park Service, the U.S. Forest Service, the Bureau of Land Management, the Utah Statewide Archaeological Society and the Utah Professional Archeological Council, events and programs around the state celebrated Utah's rich and diverse archeological heritage. Many schools conducted special programs on Utah archeology, and excavations in Moab, Vernal and near Cedar City were open for public visitation and viewing. Displays and speakers were featured in many towns across the state and posters promoting archeology week were widely displayed.

Archaeology Week is a way to increase public awareness of Utah's cultural resources and to educate a wider segment of the population as to the wealth of the state's archeological resources and the problems with

vandalism. A large number of citizens participated in the activities and the program was enthusiastically received. Utah Archaeology Week 1990 is already being planned, and all Utah archeologists are invited to participate in this worthwhile program. Contact Kevin Jones at the Antiquities Section, 300 Rio Grande, Salt Lake City, Utah 84101, 801-533-4563 with ideas or to volunteer your time.

-Kevin Jones

## IMACS COUNCIL DISCUSSES CHANGES IN HISTORIC SITE RECORDING PROCEDURES

The Utah Division of State History and the Intermountain Antiquities Computer System (IMACS) Council organized a workshop at the end of March to consider revisions to Part C, the Historic Sites section, of the IMACS site form. Interested professionals from Idaho, Nevada, Utah and Wyoming, the states where IMACS is used, met to review and select data categories to be used in a combined historic archeology-architecture data base and to design a form for architectural site recording. The state historic preservation offices currently using IMACS employ separate but similar site forms for architectural recording. The IMACS Council would like to develop a standard form that can be readily completed by archeological professionals having no architectural training, but still be useful to preservation professionals and land managers.

The form prototype developed at the workshop will be sent to all attendees for comment by the Nevada State Historic Preservation Office. Other interested parties may obtain a copy by contacting Dave Schirer (801-533-6017) or Evie Seelinger (801-533-4563) at the Division of State History.

This combination form will be discussed further at the conference on vernacular architecture, Building the West, in Reno, on September 21, 1989, at the next two IMACS Council meetings (October 5, 1989, and February 4, 1990) at the Division of State History in Salt Lake City, and possibly during the Society for Historic Archeology meetings in Tucson during January of 1990.

Everyone interested and willing to work on this form is urged to participate. Attendance at either of the IMACS Council meetings will be particularly helpful. The Council will also be addressing the encoded information in the existing Historic Sites section of the form. All of the detail included on this part of the form may not be needed for a computer based site index and a purge is being pushed by some. Again, the Council needs your thoughts about revisions in this area. If you cannot attend the meetings, sub-

mit ideas and comments to Al Lichty at the University of Utah (801-581-5866).

-Evelyn Seelinger

## "SPIRIT WINDOWS" OPENS AT EDGE OF THE CEDARS MUSEUM

"Spirit Windows: Native American Rock Art of the Four Corners", a special exhibit on ancient rock art of the Southwest, opened at Edge of the Cedars Museum in Blanding, Utah, on April 22, 1989. The exhibit includes approximately 10 rock art panels which have been replicated directly onto the stucco walls of the museum. These rock art panels represent a wide variety of cultures, styles and time periods from the Southwest, and many are from sites that were inundated by Lake Powell and the Glen Canyon Dam Project. An interpretive study guide will be available to give insights into the panels in particular and to Southwestern rock art in general. These panels will become part of the permanent museum exhibit.

Accompanying the rock art exhibit is "Catch Something Running", an exciting and educational show by artist Joe Pachak. Mr. Pachak's exhibit is a unique blend of two-dimensional paintings and three-dimensional sculptures of rock art, placed in a replicated desert environment complete with sand, bleached-white bones, live plants and chirping birds. "Catch Something Running" just finished a successful two months show at the Utah Museum of Natural History in Salt Lake City and will be on display at Edge of the Cedars through June.

As part of the grand opening and special introduction to the "Spirit Windows" exhibit, a two-day symposium was held at Edge of the Cedars on the weekend of April 22 and 23. Joe Pachak introduced the new rock art panels on the museum walls and his "Catch Something Running" exhibit. Scholars presented lectures on a wide variety of rock art related topics, and films and videos were shown on rock art in the Four Corners area. The grand opening also included a field trip to rock art panels along Indian Creek including Newspaper Rock and many other panels of a variety of styles and time periods.

-Kathryn Hurst

## CAMP FLOYD RECOGNIZED

The State Park at Fairfield, Utah, will be receiving some long overdue recognition on Memorial Day. Max Evans, Director of the Division of State History, will present a plaque identifying Camp Floyd as a National Register site. Jerry Miller, Director of the Utah State

### MESSAGE FROM THE PRESIDENT

One of the visions of UPAC, shared by its founders, was as a vehicle for communication. This means communication between members, between archeologists and the public, between archeologists and policy-making and management agencies, and between professionals, acting in a professional manner. It seems a simple mission given the number and nature of UPAC members. However, open communication is often an ideal, not seemingly attainable, and this was never more apparent than with the recent flurry of accusations, ill will and public denunciations concerning the I-70 contract between UDOT and the University of Pittsburgh. One of the surprising things about this situation is that it didn't concern members of the losing consortium of contractors. It did, however, concern a certain amount of parochialism, irresponsible behavior and apparent frustration. Frustration on the part of most individuals involved.

Several issues have been raised, but those with the most credence revolve around (1) the quality of the winning proposal's research design, (2) the relatively high cost for data recovery, with a relatively open-ended arrangement for post-field analysis, and (3) the continuing lack of proper planning within the UDOT to account for archeological inventory and data recovery in time to ensure high-quality research. What can and should UPAC do in response to these issues, many of which are part and parcel of issues raised in the past? One thing has been to study the process of review and award within the UDOT. Although many rumors about favoritism and quid pro quos persist, no evidence has been found, and the process seems to have worked properly in this case. Another thing has been to increase the visibility of UPAC and USAS and to raise the consciousness, as it were, of UDOT and other agencies to the legal requirements of, as well as the public concerns with archeological resources on public lands. This has been a slow process, but progress has been made.

Other ideas have been proposed concerning the I-70 situation; these will be discussed during the upcoming meeting. For the moment, however, let's focus on long-term solutions. Changes in UPAC Bylaws (enclosed) concerning reforming the office of Vice President for Research Design Development to the Vice President for Governmental Affairs and Research will perhaps lead to more persistent oversight and communication between UPAC and UDOT and other agencies. Please refer to the office description for more detail; give me your comments. Other long-term solutions were caught up in the proposed legislation: changing the structure of the State Board of History to include archeologists, as well as specifying more clearly the State's responsibilities to cultural resource protection and study. As you know, the bill was passed through committee, but did not make it to the floor of either chamber during the legislative session.

This brings me back to the idea of communication. Because the channels of communication to deal with problems within UPAC were not utilized in regard to I-70, and instead many poorly supported contentions were thrown into the public and political arena, a block of support for the legislation was lost. Even the bill's sponsor cooled after the initial outburst because any waves in the placid pool of legislative process can create timidity. The efforts of many people were, for the moment, derailed. What should have been done? I submit that merely asking questions of members involved in issues that concern you may alleviate some perceived problems. Involvement in the process before a problem arises might even be more productive. If not, then is the time to go public.

Please review the enclosed Bylaws. Changed text is in ~~strikeout~~, proposed replacement text is underlined. We will discuss the changes at the upcoming meeting, and vote on the amended Bylaws before or during the fall business meeting.

-James D. Wilde

Division of Parks and Recreation, will receive the plaque for the park. Although the Camp, Fairfield District School and the Stage Coach Inn have been recognized as historical sites for more than a decade, placement of the plaque will enhance public awareness of their significance.

Camp Floyd was established in 1858 to house the army commanded by Colonel Albert Sidney Johnston. Although Johnston's Army was called to Utah to put down the "Mormon Rebellion", it soon proved to be an economic boon. The 2500 men and approximately 1000 civilian employees created ready markets for the pioneers. With the outbreak of the Civil War in 1860, the number of soldiers dropped from 2500 to 400. The camp was abandoned in

July, 1861. The cemetery and commissary are the only standing remains of what was once the largest troop concentration in the United States. The Stage Coach Inn was a private venture serving the men of the camp. The School was a later addition to Fairfield.

The Camp Floyd Memorial Day services will be held on Sunday, May 28. Activities are scheduled to begin at 1:00 p.m. The services are sponsored in conjunction with the Utah National Guard. For more information, contact Ben White, Superintendent, Camp Floyd State Park, Fairfield, Utah, at 801-768-8932.

-David L. Schirer

## SOCIETY FOR INDUSTRIAL ARCHEOLOGY UPDATE

The Spring Tour of the Kesler (Utah) Chapter of the Society for Industrial Archeology (SIA) took place on May 20, 1989. Chapter members visited the industrial buildings associated with the Brigham City Cooperative; these buildings not only represent the state's early industrial heritage, but the Flouring Mill at Brigham was one of the first constructed by the Chapter's namesake, Frederick Kesler.

Several chapter members plan to attend the national SIA meetings in Quebec, Canada. These meetings will focus on the pulp paper mill industry in the vicinity of Quebec. The chapter's only sister in the West, the Montana Chapter, is slated to host the Fall Tour of the national SIA. This tour will be held in September. The Kesler Chapter is planning to send a delegation to Montana to take part in this tour.

The Kesler (Utah) Chapter has continued to grow since its formation last fall. Interest has been generated by archeologists, historians and interested persons in a variety of fields. The goal of SIA is to identify, document and preserve our industrial heritage. If you would like to be a part of this venture, contact David L. Schirer at the Division of State History, 801-533-6017.

-David L. Schirer

### CURRENT RESEARCH

*NOTE: All of the current research reports in this issue were submitted by the National Park Service, Midwest Archeological Center, Lincoln, Nebraska. The Midwest Archeological Center conducts most of the archeological research that takes place in the midwestern and Rocky Mountain National Parks.-Ed.*

#### GLEN CANYON NATIONAL RECREATION AREA

A crew of six archeologists from the Midwest Archeological Center under the field direction of Anne Wolley completed two projects in Glen Canyon National Recreation Area in June of 1988. A survey of the upland area to be impacted by development near the Wahweap Marina resulted in the identification of 17 prehistoric sites. The sites are similar to others previously identified in the area: dispersed scatters with occasional dense concentrations. Material type and artifact type distributions recorded on quarry sites differ from those on nonquarry sites, and may allow development of a model of the procurement, reduction and transport of items which supported economic activities on nonquarry sites. Analysis of these materials is continuing. Limited subsurface testing was performed, but no significant subsurface materials were encountered.

The second project conducted in June involved the excavation of a large, isolated olla in a crevice in the

northern portion of the park (42SA20779). The vessel was originally discovered by Western State College students hiking in the park and was reported to park personnel. A small number of artifacts were found in association, including a corn cob and a mule deer metapodial. The vessel has been classified as a Pueblo II-III Mesa Verde Corrugated with a geometric indented design.

#### BRYCE CANYON NATIONAL PARK

During June and July a crew, under the field direction of Karen Kramer, surveyed approximately 704 acres along 59 miles of trails and 433 acres in prescribed burn areas in Bryce Canyon National Park. A total of 7 historic sites and 8 prehistoric sites was recorded, adding substantially to the data base of 30 previously recorded sites. All of the historic sites are aspen carvings. Dating as early as 1903, these dendrographs bear witness to the activities of several early settlers, and to changing land use patterns, including logging and ranching, and provide a liberal sample of vernacular humor.

All of the prehistoric sites are lithic scatters. Diagnostic artifacts indicate at least Middle Archaic through Late Prehistoric occupation of the survey areas. The park is at the edge of a partially wooded highland bounded by desert, and bears only low-quality lithic sources. The sites identified appear to result from seasonal utilization of the area and nearly all of the flaked lithics originated in various sources in the lowlands. Analysis of these curated, transported assemblages promises to yield new information regarding lithic material use patterns and relationships to sites located in the nearby lowlands.

#### DINOSAUR NATIONAL MONUMENT

In September of 1988, an archeological crew under the direction of Ralph J. Hartley initiated a rock art documentation project in Dinosaur National Monument. Several means of documenting the sites were used in an attempt to assess what methods best provide the kinds of information needed for management purposes and to assess what kinds of documentation are most appropriate for different site types. These methods include still photography with large, medium and 35 mm format equipment, scale drawings, video photography and terrestrial photogrammetry. The photogrammetric recording was conducted by Hammon, Jensen, Waller and Associates of Oakland, California. Seven sites in the Jones Hole, Echo Park, McKee Springs and Split Mountain areas were fully documented with all methods. All methods are currently being evaluated for their usefulness in documenting the remainder of rock art sites in the park.

#### CANYONLANDS NATIONAL PARK

*Island-in-the-Sky Road Project.* Three years of intensive archeological survey, testing, and excavation along 45 kilometers of road corridor in Island-in-the-Sky were completed in October of 1985. Initial reconnaissance on the Island-in-the-Sky road was carried out by Ralph J. Hartley of the Midwest Archeological Center, National Park Service, Lincoln, Nebraska, in 1979. Twenty-seven artifact

scatters were documented at that time. Intensive pedestrian survey and test excavation within a 100-meter-wide corridor centering on the existing Park road system was begun in 1983 under the joint direction of Ralph J. Hartley and Susan Vetter (Field Archeologist). These archeological investigations were continued in 1984 and 1985. In November of 1985, the project was transferred to the Department of Anthropology at the University of Nebraska-Lincoln under a cooperative research agreement established between the university and the Midwest Archeological Center, National Park Service. The project is currently under the direction of Dr. Alan J. Osborn (Principal Investigator). Additional ecofactual and archeological analyses have been completed by Linda Scott Cummings (palynology/macrobotanical remains), Jennifer Waters (faunal remains), Galen Burgett (taphonomy), Anthony Zaluka (paleobotanical/wood, charcoal), Dean Wilson (ceramics), Laurie Walsh and Steve Baumann (chipped stone artifacts), Jesslyn Brown (groundstone artifacts), W. E. Sudderth (historic artifacts) and Harold Krueger (stable carbon/nitrogen isotopes).

This research project has focused on aboriginal patterns of land use, paleonutrition/diet/health, food storage and caching strategies. Land use strategies are being investigated via a distributional approach based on instrument mapping and systematic collection of all artifactual materials within a 100-meter-wide, 45-kilometer-long corridor. Mapping was conducted using both transits and an electronic distance measuring instrument (EDM). Provenience data and artifact observations were then entered into a

portable Epson HX-20 computer. More than 90,000 specimens were recorded and collected for analysis. A total of 32 artifact concentrations was mapped and collected within the road corridor, and an additional 11 artifact scatters were mapped and 6000 artifacts were analyzed in the field by a University of Nebraska archeological fieldschool. More than 600 one-meter-square test units were also excavated within the road corridor. More than 280 historic artifacts were also recovered and 112 historic features were mapped. All areas within this extensive survey corridor can now be computer mapped using a desktop mapping package.

Block excavations were carried out at 10 sites including 42SA16858 (Gray's Pasture), 49 m<sup>2</sup>; 42SA8506 (Dunes), 31.5 m<sup>2</sup>; 42SA8502 (Neck), 34 m<sup>2</sup>; and 42SA8512 (Alcove Spring), 12 m<sup>2</sup>. Excavations at Gray's Pasture revealed a puddled, clay-lined hearth, a small, slab-lined pit, seven restorable ceramic vessels, chipped stone and groundstone tools, and faunal remains. Radiometric dates from this location are 1335 ± 65 B.P. (A.D. 690-759) and 1210 ± 80 B.P. (A.D. 610-1020). Excavations at the Dunes site (42SA8506), that is also located in Gray's Pasture, revealed disturbed features including one human burial, faunal remains, stone tools and one restorable ceramic vessel. Radiometric dates from the Dunes site are 940 ± 70 B.P. (A.D. 920-1230), 1000 ± 50 B.P. (A.D. 895-1195), 1050 ± 50 (A.D. 875-1055), 1240 ± 70 (A.D. 620-895) and 1290 ± 80 B.P. (A.D. 585-900). All radiometric dates obtained thus far are included in Table 1.

Table 1. Unpublished radiometric dates from the Island-in-the-Sky Project, Canyonlands National Park, Utah.

Site Name and Number	Beta Analytic Number	Radiocarbon Age	Calibrated Date <sup>a</sup>	Feature Number
1. White Crack (42SA17597)	Beta-24478	2990 ± 70	1400-925 B.C.	-
2. Polley Secrest (42SA-----)	Beta-20470	640 ± 60	A.D. 1255-1405	-
3. Murphy (42SA8500)	Beta-20467	2740 ± 60	1095-790 B.C.	47
4. Murphy (42SA8500)	Beta-20466	1730 ± 70	A.D. 65-430	46
5. Murphy (42SA8500)	Beta-20465	310 ± 70	A.D. 1425-1660	45
6. Alcove Spring (42SA8512)	Beta-20468	410 ± 80	A.D. 1345-1650	56
7. Willow Seep (42SA415)	Beta-20469	2160 ± 100	410 B.C.-A.D. 15	50
8. Dunes (Burial) (42SA8506)	Beta-20464	1240 ± 70	A.D. 620-895	34
9. Dunes (42SA8506)	Beta-20462	940 ± 70	A.D. 920-1230	38
10. Dunes (42SA8506)	Beta-20461	1290 ± 80	A.D. 585-900	36
11. Dunes (42SA8506)	Beta-20460	1050 ± 50	A.D. 875-1055	39
12. Dunes (42SA8506)	Beta-9310	1000 ± 50	A.D. 895-1195	33
13. Gray's Pasture (42SA16858)	Beta-20459	1210 ± 80	A.D. 610-1020	35
14. Gray's Pasture (42SA16858)	Beta-27646	1335 ± 65	A.D. 690-795	41
	ETH-4585			
15. Neck (42SA8502)	Beta-9312	630 ± 80	A.D. 1235-1415	7
16. Neck (42SA8502)	Beta-9311	120 ± 50	A.D. 1655-1950	14
17. Neck (42SA8502)	Beta-9309	330 ± 60	A.D. 1425-1655	26
18. Neck (42SA8502)	Beta-9308	270 ± 50	A.D. 1485-1795 (or 1760-1795)	-
19. Neck (42SA8502)	Beta-9307	320 ± 50	A.D. 1425-1655	6
20. Knoll (42GR2052)	Beta-9306	990 ± 60	A.D. 900-1205	5

<sup>a</sup>Following Klein et al. 1982—Dates calibrated with 95% degree of confidence.

Ecofactual materials, e.g., faunal remains, pollen and macrofloral specimens, will be used to evaluate ideas regarding aboriginal subsistence. More than 800 identifiable faunal specimens (ca. 70 MNIs) indicate that aboriginal peoples exploited large mammals including bighorn sheep, pronghorn antelope, mule deer, bison?, as well as smaller mammals, e.g., cottontail and jackrabbit and rodents. Pollen recovered from "occupation" areas and groundstone/ceramic vessel washes includes maize, cucurbit and legume(s), as well as wild grasses. Approximately 5800 unidentifiable bone fragments were also examined from a taphonomic perspective. Indices of bone weathering were utilized in order to interpret the depositional environments and human behavioral contexts of site formation in the survey area. In addition, 20 samples of human bone from east central Utah have been submitted for carbon and nitrogen isotope analysis. The samples include individuals from the Polley-Secret site in Moab (6), the Dunes site (42SA8506) in Island-in-the-Sky (1), Courthouse Wash near Arches National Park (1), Edge-of-the-Cedars site (42SA700) in Blanding (1) and Westwater Canyon (42SA14187). The results of these analyses, as well as paleopathological observations are forthcoming.

*White Crack Site (42SA17597).* Archeological investigations were conducted at the White Crack site (42SA17597) in 1985 and 1987 by University of Nebraska and National Park Service personnel under the direction of Susan Vetter (Field Archeologist). This work was carried out prior to further development of the campground established on the White Rim trail between Twin Basin and Monument Basin. This site consists of an extensive scatter of lithic debitage. The raw material consists primarily of reddish brown chert that outcrops immediately below the White Rim in the Cedar Mesa sandstone. In 1985, the boundaries of this extensive lithic scatter were demarcated and mapped. A total of 174 one-meter-diameter units was established and all artifactual material (4061 items) within these units was collected. Historic materials were observed approximately 100 meters north of this aboriginal lithic scatter. In 1987, two 2- by 318-meter transects were placed north of the campground to obtain additional debitage samples. A total of 1195 items was collected. Twelve bifacial tools were recovered; 11 of these implements are broken. Two 2- by 2-meter units were excavated in shallow, limited deposits of eolian sands. A wood charcoal sample provided a radiometric date of  $2990 \pm 70$  B.P. which has an uncalibrated range of 970-1110 B.C. (Beta 24478). Flake size distributions suggest that the primary activity at this location was biface production. Recent studies indicate that bifacial core production is correlated with residentially mobile hunter-gatherers who required multifunctional implements and efficient methods of raw material utilization.

*Needles District.* From July to September, the crew began evaluation of cultural resources to be affected by development in the Needles District of Canyonlands. The fieldwork, supervised by Steve Dominguez, included survey and testing and will eventually include evaluation and possible mitigation of up to 35 sites. A survey of approximately 3.5 miles of road and utility corridors located seven

prehistoric sites with Middle Archaic, Late Archaic and Late Prehistoric materials. Two sites are open lithic scatters. Five are located in overhangs within the Squaw Flats Campground.

Three sites were extensively tested and testing was initiated on a fourth. No dates are available for the tested deposits. Cultural materials were found to be distributed over large areas in eolian sand deposits of varying depths. The absence of buried soil horizons and the placement of diagnostic artifacts suggest extensive eolian deposition and little soil stability between Middle Archaic and Anasazi occupations. Continuing excavation and analysis will help to clarify this preliminary result and provide further information regarding adjustments to paleoenvironmental change.

### ZION NATIONAL PARK

Three artifact scatters (sites 42WS2215, 42WS2216 and 42WS2217) in the Cave Valley area of Zion National Park were systematically mapped and tested in June of 1987. These investigations were conducted by a University of Nebraska-Midwest Archeological Center (NPS) crew under the direction of Dr. Alan J. Osborn (Principal Investigator) and Galen Burgett (Field Archeologist). These sites are located on land that was to be exchanged between the National Park Service and a private landholder.

These artifact scatters are situated in partially stabilized eolian sands within a pinyon-juniper woodland on the southern slopes of Spendlove Knoll at approximately 1920 meters (6300 feet) above sea level. The sites cover 800, 12,000 and 2400 m<sup>2</sup>, respectively. A total of 38 m<sup>2</sup> was excavated at these artifact scatters. Artifactual materials recovered from both the surface and excavated deposits include patterned chipped stone tools: projectile points, 12; bifaces, 4; graver/perforators, 3; and unifaces, 1. The projectile points consist primarily of Desert Side-notched and Cottonwood varieties. Lithic debitage dominates the three artifact assemblages; biface thinning flakes predominate in the debitage category. Almost all patterned tools are either broken or exhausted. Flake size distributions and use wear suggest that biface production and maintenance were significant activities at these sites. Groundstone tools were also recovered including slab metates and manos; these implements appear to be relatively expedient. In addition, 23 ceramic vessel fragments were recovered; 22 of these are from site 42WS2217. All 23 sherds are within the range of Southern Paiute Utility Ware. The sherds are small and 21 exhibit shallow to deep fingernail or finger-punched exteriors. Little archeological significance can be given to such cultural historical categories due to the incredibly wide geographical range over which these brownwares are found. Finally, 203 animal bone fragments were found; more than 84% of these fragments are large enough to be assigned to mammal body size classes.

### ARCHES NATIONAL PARK

An archeological survey of selected roads, trails and parking facilities in Arches National Park was conducted in August of 1987 by a University of Nebraska-Midwest

Archeological Center (NPS) crew under the direction of Dr. Alan J. Osborn (Principal Investigator) and Karen Kramer (Field Archeologist). Areas surveyed include Delicate Arch Road, Window Section trails and parking area, Double Arch Trail, Devil's Garden Campground, Devil's Garden-Landscape Arch Section trail complex; Fiery Furnace, Salt Valley, Panorama Point and the LaSal Mountain road and overlooks; and Park Avenue, Delicate, Sand Dune, Broken, Skyline and Tower arch trails. The total land area included within this survey is 1160 acres. Twenty-eight percent of the documented sites are lithic scatters and 58% of these scatters contain patterned chipped stone or groundstone tools. Ninety-one percent of the isolated occurrences are lithic debitage. One petroglyph site, one historic site and one lithic/sherd scatter were also recorded. The artifact scatters ranged from 24 to 426,000 m<sup>2</sup> in size.

No artifacts were collected during this survey. However, one-meter-wide "transect" units were established at each site. Both artifact categories and number of specimens within each category were tabulated. Length of these observation units varied in relation to site and assemblage size. These data were utilized in an analysis of artifact assemblage diversity based on the Shannon-Weaver information statistic and related measures of evenness and redundancy. Results of this analysis, as well as the analysis of Natural Bridges National Monument artifact assemblage samples, stand in marked contrast to currently held assumptions regarding artifact assemblage diversity (expressed as richness) and sample size. Further regression analyses demonstrated little or no correlation between diversity and sample size, sample size and site area, richness and sample size, or richness and site area. Furthermore, the relationships between local lithic sources, i.e., character and location, and the diversity of associated lithic scatters, were investigated. Results suggest that there is no correlation between raw material diversity and artifact assemblage diversity suggesting that specific raw materials (as defined here) were not closely associated with particular tool functions.

In addition, recommendations were made regarding the minimization of adverse impacts (e.g., trail and road maintenance and improvements, and unauthorized artifact collection) to sites observed during this survey. The archeological and historic collection at Arches National Park was also examined and inventoried. One hundred and forty-two historic artifacts and 266 prehistoric artifacts were measured and described.

#### **NATURAL BRIDGES NATIONAL MONUMENT**

In July of 1987, an archeological survey crew from the University of Nebraska and the Midwest Archeological Center (NPS) examined approximately 834 acres within Natural Bridges National Monument. This project was directed by Dr. Alan J. Osborn (Principal Investigator) and

Karen Kramer (Field Archeologist). Areas surveyed included the entrance road, Loop Road, mesa top trails and an additional 320-acre block. For the most part, the survey areas were located away from the mesa edge in a pinyon-juniper forest. A total of 40 sites and 73 isolated artifact occurrences was recorded. Twelve of the sites identified during the survey had been documented previously during investigations conducted by the Hoblers and the Heads. A total of 81 features, including soil stains, midden areas/mounds, rock/slab alignments, slab-lined pits, jacal structure remains and/or roomblocks, was documented at 25 sites (63%). Documentation for each site included IMACS forms, detailed sketch maps, black and white and color photographs, and artifact assemblage observations. The form, material type, color, completeness, shape in plan view, presence of use wear and surface treatment was recorded in the field for all observed patterned tools. One-meter-wide transects of variable length were established within each surface scatter and all artifact categories and their frequencies were tabulated on standardized field forms. Ceramic vessel fragments were examined in the field and assigned to cultural historical taxa.

Artifact data collected from sample transects within 37 sites were used to examine the relationships between site size and sample size versus assemblage diversity, evenness and redundancy. As mentioned, recent archeological literature proposed that artifact assemblage diversity can best be understood as simply a function of sample size. Analyses of the artifact samples from Natural Bridges National Monument reveal that in these cases, diversity (measured in terms of the Shannon-Weaver information statistic) and sample size are inversely related. This relationship between assemblage diversity and sample size is directly counter to that proposed by a number of archeologist working in the Columbia Plateau, the Great Basin and the American Southwest. Furthermore, artifact assemblage diversity is inversely related to site area.

Two additional artifact collections from Natural Bridges National Monument were also examined and inventoried. These included 148 chipped stone and groundstone tools, ceramics, yucca fibers, wooden objects, maize cobs and historic objects that are currently curated by Arches National Park, Edge of the Cedars Museum, Natural Bridges National Monument and the Western Archeological Center. A collection of ceramic material was studied, described and inventoried by Winston Hurst, Director of the Edge of the Cedars Museum in Blanding, Utah. This collection was obtained by the Hoblers and consists of 3662 sherds. This collection includes Basketmaker III Mesa Verde white ware (Chapin Black-on-white), Pueblo II-early Pueblo III Kayenta white wares (Black Mesa, Sosi and Dogoszhi Black-on-white), early Kayenta redware, as well as Mesa Verde Mancos Black-on-white and Dolores Corrugated ceramics.



## STATES ELSEWHERE

### JOHN A. SENULIS

#### ARIZONA

The Arizona Archaeological Council (AAC) was formed in 1976 by 14 concerned archeologists. On March 25, 1977, the by-laws were adopted and AAC became the official organization of Arizona archeologists.

The AAC is a nonprofit, voluntary association that exists for the purpose of maintaining and promoting the goals of professional archeology in Arizona. It is a strong supporter of public archeology programs in Arizona, and its most active committee is "Archeology in the Schools." The Schools Committee is comprised of professional and avocational archeologists and educators who are developing grassroots support for archeology education in schools through a variety of activities. These include putting on workshops for teachers several times a year, co-sponsoring a school poster contest for Archeology Week, testifying in support of relevant legislation at the State Legislature, co-sponsoring a symposium on archeology in the schools at the Society for American Archeology meetings, publishing in a variety of sources, developing a student workbook and teacher manual, and producing a videotape for use in schools.

Other committees include Legislation, Indian Affairs, Curation and the SHPO Liason Committee. The latter assists the SHPO in preparing the archeological components of the Comprehensive Statewide Historic Preservation Plan.

AAC traditionally holds two meetings per year of 1-2 days duration which rotate between Flagstaff, Phoenix and Tucson. Each meeting includes a morning business session and either a Special Topic Session (Fall meeting) or Symposium (Spring meeting). The Special Topic Sessions feature formal papers focusing on a specific topic, while the Symposia provide forums for formal papers on a variety of topics that concern Arizona archeology.

The AAC prints a quarterly newsletter. It has no formal publication series, but often contributes generously to the cost of printing the volume from the Special Topic Session. A bibliography of Arizona archeology reports was published several years ago and was initially planned as a yearly project, but this has been discontinued largely due to lack of adequate staff support for this relatively monumental task.

Although a strong organization, the AAC has had difficulty keeping the membership numbers up and has not experienced any significant growth in members for several years. It is particularly difficult to obtain sufficient support from academic archeologists and students. AAC would be interested in hearing from other organizations on this issue.

#### Permanent Address:

Arizona Archaeological Council  
c/o Sharon Urban, Secretary-Treasurer  
Arizona State Museum  
University of Arizona  
Tucson, Arizona 85721  
(602-621-4011)

Current Officers: President: Margerie Green; Vice President: Robert Gasser; Secretary-Treasurer: Sharon Urban; Executive Committee: Christian E. Downum, Douglas Mitchell, Michael Bremer and Carl Phagan.

Special thanks to Teresa L. Hoffman, Editor of the AAC Newsletter, for her timely and informative response to my inquiry. It was so well written I changed very little of the wording. Pretty soon I'll change the name of this column to "States Elsewhere by Somebody Else."

#### COLORADO

The February 9, 1989, "Newsletter" of the Colorado Council of Professional Archaeologists (Volume 11, Number 1), includes an intense discussion of the "Reburial Issue." Included are a letter from Douglas Scott concerning proposed legislation in Nebraska, and a review of the Advisory Council's new amendment to ARPA by Stephen Chomko of Interagency Archeological Services. Both writers feel there are inherent dangers threatening both archeologists and physical anthropologists. Anyone concerned with the reburial issue should read the full discussion.

#### NEVADA

Nevada will be the focus of my next column. Not only will I include a discussion of NCOPA but I will very favorably review the new BLM guidelines for that state. The new guidelines effectively challenge one of Archeology's major problems, AMBIGUITY. More next time. . . .

