



## UPAC NEWS

NEWSLETTER FOR THE UTAH PROFESSIONAL ARCHAEOLOGICAL COUNCIL

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Bill Davis, President  
Bill Fawcett, Editor

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### PRESIDENT'S MESSAGE

Bill Davis

Archaeological sites are being damaged by increased visitation, largely a result of tourism. Unlike the damage wreaked by looters, vandals and private collectors, most of the damage done by visitors is unintentional. There are two kinds of damage: (1) damage caused by lack of knowledge of the fragility of archaeological sites, such as standing on a roof, causing it to cave in, or making "rubblings" from rock art; and (2) the cumulative impact of visitors to sites, such as erosion caused by trails over middens or along the bottoms of walls, which may lead to their collapse, and the picking-up of artifacts as souvenirs.

Many visitors are from areas without well-preserved archaeological sites. Consequently many of them understand neither the importance of the archaeological record or proper site etiquette. As well, many residents of the Plateau, primarily tourism providers, are also unaware of the impacts their actions may have on the heritage they were lucky enough to inherit.

Archaeologists should be concerned about these impacts for two reasons. First and foremost, there is the need to preserve and protect the archaeological record for the information it contains. Second, these resources, if properly cared for, can benefit the public through education about our cultural heritage.

The problems inherent to heritage tourism have been recognized for some time by various public and private agencies: the BLM, National Park Service, Forest Service, Native Americans, Four Corners Heritage Council, Southern Utah Wilderness Alliance, and the Grand Canyon Trust. UPAC should join with these agencies to provide input into strategies to preserve and protect cultural resources from the secondary impacts of tourism, and to educate tourism providers and visitors about these fragile and irreplaceable resources.

As UPAC President, I have sent letters to a number of state, federal, and other public officials that describe these problems and provide recommendations for addressing them. First, recognizing there is a need to generate funds for educational aspects, it was suggested that for every dollar put into conference, advertising, brochures, and the like, two dollars should be placed into direct site management programs. These include non-development related inventories, trails, signs, fences, wall stabilization, and more. Second, it was requested that the federal agencies in Utah address the 1992 amendments to ARPA that deal with protection of locational information for archaeological sites. At a minimum, this can be done by formalizing a site disclosure system that provides specific information only for archaeological sites that have been "hardened" for visitation, or can be protected in some other way. Locational information should not be provided for any other sites. Pending responses from these agency officials, it is hoped that UPAC members can assist with developing management programs that take into consideration the impacts of tourism on Utah's fragile, irreplaceable culture resources. Lastly, good stewardship begins at home. Professional archaeologists can contribute to the preservation and protection

of cultural resources near their home communities by being involved in local preservation programs and avocational archaeological groups.

## **MINUTES OF BUSINESS MEETING 25 MARCH 1994**

The spring 1994 business meeting of the Utah Professional Archaeological Council (UPAC) was held on 25 March 1994 at the St. Christopher Mission, east of Bluff, Utah.

The meeting was called to order by President Steve Simms at 1:51 PM. Steve introduced the newly elected officers: Bill Davis (President), Charmaine Thompson (VP Membership & Ethics), Nancy Shearin (Treasurer) and Bill Fawcett (Newsletter Editor). The meeting was turned over to Bill Davis.

Old Business Jim Dykman reported that UPAC had great influence in convincing the Federal Highway Administration that its approach to the Hwy 5 project was antiquated. -

New Business Kenneth Wintch gave an update on the status of State Lands: There will be two new agencies: Division of Sovereign Lands and Forestry (Dykman and Schmidt) and Trust Lands and Administration (TLA, where Ken will be). The TLA can return to the Legislature after 1 yr and raise new concerns. Ken is concerned that this may be an avenue to sidestep endangered species, NEPA & CRM issues. Dykman noted that the new board of the TLA will determine ESA and CRM issues. Bill Davis noted that there are local concerns about NEPA review of projects. Kevin Jones suggested that since Kenny's position was the result of legal pressure, it might be appropriate that UPAC write a "reminder" letter to TLA. Bill Davis will write this letter. Dennis Weder asked about

State version of NEPA. Ken replied that this role is filled - imperfectly by the Resource Development Coordinating Committee (RDCC). This is a definite weakness in the system. David Madsen replied that there is not NEPA type oversight agency for State actions. Citizen and profession entities need to act as watchdogs. Kevin Jones suggested that Duncan Metcalfe monitor this type of situation as part of his job as VP for Government Affairs. Sue Miller suggested that UPAC follow the State Lands planning cycle in order to keep abreast of forthcoming actions.

Steve Simms gave a status report on the Native American Remains Committee (NARC): Call Division of Indian Affairs, Wil Numkena (801/538-8808), to get on the mailing list. NARC rules are based on NAGPRA, but are not yet finalized. There is a potential problem in the rules as they now stand. Any unclaimed remains will be removed from any scientific study, but this rule probably will not be passed. There is a serious Catch 22: one must get owner's permission before doing any study, but some degree of analysis is necessary to determine ownership. The cutting-edge of analysis (e.g, DNA) involved destructive techniques. Nancy Coulman asked the status of Pioneer Burial Vault. Simms responded that the Shoshoni will use it, but probably no one else. It will be very expensive due to high design and construction costs. There is room for 500 burials. Madsen agreed that other tribes won't use it.

Kevin Jones gave an update on *Utah Archaeology* (UA): The Utah Statewide Archaeology Society (USAS) is having money troubles. UA needs their monetary contributions. They buy the majority of the issues. UA now has \$1300 in account. UA could use the help of the UPAC membership to attract additional subscribers. Simms mailing has resulted in good library

response. Simms recommended the establishment of an Advisory & Assistance Board for UA, to include UPAC officers, and expedite the journals operations. Sue Miller and Ken Wintch noted that UPAC officers are already too busy, and suggested instead a volunteer board. Jones and Simms believed that at least 3-4 people from UPAC and USAS would be needed. Schmidt suggested that there was a need to track which reviewers were responding in timely manner. MOTION by Simms for the establishment of *Utah Archaeology* journal editorial board (2nd by Schmidt): An editorial board consisting of 3 UPAC/USAS members may be appointed by the Editor of UA in consultation with the UPAC Executive Board. At the request of the Editor, the Editorial Board will provide assistance in producing the journal (e.g., manuscript solicitation, administrative/ editorial management, marketing, etc.). Members of the Editorial Board have not set term of appointment, but serve at the discretion of the Editor and the UPAC Executive Board. PASSED

Jones reminded that Utah Prehistory Week is coming up (7-14 May 94). Please help disseminate posters, pamphlets etc. There will be about 100 events around the State. The Great Basin Conference will be in Elko this fall, and he is still looking for papers and sessions.

Madsen asked the status of the special monograph #1 from the Rocky Mountain Anthropology Conference (RMAC). MOTION: Madsen moved that "UPAC support the joint effort to publish a special monograph based on papers given at the RMAC up to \$500" (2nd by Simms). PASSED by voice vote.

Evelyn Seelinger gave the Treasurer's Report: UPAC is in the black by \$6480.16.

Sue Miller noted that a replacement is needed for Betsy Tipps on the UDOT

advisory Board. The person needs to be a UPAC member. Jim Dykman volunteered to assist Duncan Metcalfe.

Madsen announced that Dave Schmidt is in charge of the new program at State History to assist small scale government entities. Local governments are now required to comply with CRM laws and regulations.

Madsen brought up the issue of cultural heritage tourism. He feels that federal agencies are promoting heritage tourism without planning for the remediation of the site deterioration which inevitably accompanies tourism. Coulam disagrees. The Feds are not promoting cultural resource tourism; the State Travel Council is the culprit. The revision of NHPA Section 304 does not allow the disclosure of NHPA eligible site locations without a specific management plan. Madsen responded that the Four Corners Heritage-- which promotes tourism--is a consortium of federal agencies. Jerry Wylie is now USFS heritage tour coordinator. Simms asked what UPAC's role should be. The public perceives that archaeologists have created an elitist system of government control. Agencies see no other way to protect resources. Some sites need public access and promotion. Leann Hunt asked: Can we get guidebooks under the permitting process? Kevin Jones noted that dissemination of a pamphlet would be covered by Section 106 review, but there is also the need to train guide-writers on etiquette issues. Winston Hurst feels that some minimum amount of documentation is needed before a site is publicized. We also need to apply gentle pressure to tour types to take responsibility for results of promotion. Hunt believes that agencies should spend less on brochures and apply that money to hardening sites. Madsen agreed. The hardening can be done without visitors even being aware. Davis suggested that Hurst,

Madsen, Hunt and Coulam write a letter for UPAC to forward. Madsen will draft letter to the big players, and Hurst will do a local letter.

Miller suggested that UPAC should have a Native American Affairs VP. Evie Seelinger noted that this position would require a bylaw change unless filled by appointment. Miller will write an article on this for next newsletter. Simms suggested that Fawcett should send complementary newsletters to tribal offices. Hurst observed that UPAC needs to think beyond Utah-- involving Rio Grande Pueblos and others. Coulam noted that NPS consults with 50 tribal groups as interested parties, including on actions as minor as brochures.

Davis announced that agenda for the rest of the weekend: Goat for dinner. Sites visits tomorrow--meet at 9 and bring lunch. Transportation is on hay wagons and rubber raft to ferry across the river. Kyle's Roadhouse for party in evening with live music.

Meeting adjourned at 4 pm.  
--Dennis G. Weder

### **FINANCIAL STATEMENT March 24, 1994**

Balance 1/1/94	\$5,729.77
Expenses 1/1/94-3/24/94	
1 issue UPAC News	162.88
UT State Tax Comm.	100.00
Total Expenses:	\$262.88
Deposits 1/1/94-3/24/94	
Interest	25.77
Membership Dues	987.50
1/1/94 Balance:	\$5,729.77

Expenses	-262.88
	5,466.89
Deposits	+1,013.27
3/24/94 Balance	\$6,480.16

75 current UPAC members: 1 Associate, 22 Complimentary, 4 Fellows, 2 Student & 46 Voting.

--Evie Seelinger

### STATE LANDS UPDATE

Effective July 1, 1994; the Division of State Lands and Forestry is no more. In its place within the Utah Department of Natural Resources will be the Division of Sovereign Lands and Forestry (emphasis mine), managing the beds of the Great Salt Lake, Utah Lake and Bear Lake, as well as the beds of the Jordan River and portions of the Green and Colorado Rivers in Utah. Management of all those scattered trust land sections and blocks will be vested within an entirely new and independent state agency known as the School and Institutional Trust Lands Administration (SITLA). Existing cultural resource staff (i.e., me) will go with SITLA and the remnant agency Sovereign Lands and Forestry, will rely on State History for cultural resource advice and assistance. Each new agency will be effecting new rules for cultural resource management beginning in July. I imagine the current rules (R640-60) will form some sort of starting point for each new agency. As you perhaps already know, this split is the result of passage of House Bill 250 by the 1994 Utah Legislature. I perceive no immediate changes in practical management or attitude toward cultural resources on the part of either new agency as a result of HB 250 passage, but then "again, the new managers of either agency have not been

named. I guess we, as UPAC members, will just have to wait and see what happens over the course of the next few months (or the next year).

The short-list bid system I discussed in last fall's issue of the *UPAC News* is still in genesis. I expect to release a request for statements of qualifications and interest to everyone who has a current Antiquities annual permit sometime in the near future. This system will be exclusively for SITLA. As I mentioned before, there would be no need for a formal "retainer" contract (like UDOT's previous district consultant or current region consultant contracts) for either time or money. The purpose of the system is simply to allow SITLA to quickly and easily obtain consultant services for survey projects, yet still comply with state procurement laws.

I will be conducting a number of surveys this field season, and welcome any office pinkies (etc.) out there who would like to come volunteer for a good time in the sun. If anyone has questions about these or any other matters, please give me a call at 801/538-5489.

--Kenny Wintch

### HELP MAKE THE GRAY LITERATURE LESS GRAY: BSU CULTURAL RESOURCE SERIES SEEKS AUTHORS & MANUSCRIPTS

Boise State University (BSU) is restructuring its Cultural Resources Reports series to publish research from a broader geographic area, with more regular publication and wider circulation. The series will continue to publish cultural resource evaluations and short technical reports, but manuscripts of greater length and of a more substantive, problem oriented nature are also

being sought. Cultural resource management is the engine of data collection in contemporary archaeology. Some of the real gems out there in the CRM literature do not find the circulation they deserve. The investment to take a CRM report that makes a substantive contribution to the next level of publication is small. In some instances it is possible to extract themes or specific problems from a larger report and with relatively little effort, shape these into publishable manuscripts. Mark Plew (Dept of Anthropology, BSU, Boise ID 83725)--the editor of the series--actively seeks authors and manuscripts of greater length than journal articles. I serve on an editorial board with representatives from ID, OR, NV and UT, and would be happy to work with you to identify material. Through the development of journal articles and more formal publication in series (BSU, BLM, etc.) we broaden the dissemination of archaeological knowledge gained through CRM--a mission central to our existence. --Steve Simms  
801/979-1277

#### **SUBMISSIONS NEED FOR *UTAH ARCHAEOLOGY***

Have you been doing some interesting research in and around Utah? Send your article manuscript to the Kevin Jones, Editor of *Utah Archaeology*. Consult a recent issue for the style guide.

#### **NEW RESOURCES/PUBLICATIONS**

Historic Preservation Directory (4/1994) available from Utah State Historic Preservation Office, 300 Rio Grande, Salt Lake City UT 84101.

In the Shadow of Fox Peak about the Todaikadi Paiute of NV's Stillwater marsh can be ordered from GPO, Washington DC 20402-9325. \$24

Order Backtracking: Ancient Art Of Southern Idaho from ID Museum of Natural History, Box 8096, Pocatello ID 83209-8096 \$19.95.

Survival And Detection Of Blood Residues On Stone Tools, by J. Eisele. University of Nevada, Dept. of Anthropology Technical Report 94-1, Reno (4/1994).

Preserving Traces Of The Past: Protecting Colorado Plateau's Archaeological Heritage, by R. Moore. Grand Canyon Trust, Box 30848, Flagstaff AZ 86001. \$5

Several volumes of the BLM Utah Cultural Resource series are still available: #7 Tennent 1982 John Jarvie of Brown's Park. #16 Fikme & Phillips 1984 A 19th Century Burial from Northeast Utah. #19 Black & Metcalf 1986 The Castle Valley Archaeological Project. #20 Walling et al. 1986 Excavation at Quail Creek. #22 Tipps 1988 The Tar Sand Project. #24 Atkins 1994 Anasazi-Basketmaker, \$10. Also: Judge & Sebastian 1988 Quantifying The Present & Predicting The Past. Send orders to BLM State Office, Salt Lake City UT 84145-0155.

#### **BLM DRAFT HANDBOOK ON NATIVE AMERICAN CONSULTATION**

The BLM has released a Draft Handbook on Native American Consultation as a supplement to the existing Manual (8160). The Handbook does not introduce new polity, but consolidates existing guidance

and legal requirements for consultation into a single document.

The consultation and documentation standard to be applied by BLM as copied from Chapt 1 of the Handbook is as follows:

Before making decisions or approving actions that could result in changes in land use, physical changes to lands or resources, changes in access, or alienation of lands, BLM managers must-observe pertinent Native American consultation requirements and document how this was done. In the face of a legal challenge, the consultation record will be the BLM's basis for demonstrating that the responsible manager has made a reasonable and good faith effort to obtain and consider Native American input in decision making. Statutes which either require consultation or consideration of specific Native American concerns include: American Indian Religious Freedom Act 1978; AIRFA); Archaeological Resource Protection Act (1979, amended; ARPA); Federal Land Policy & Management Act (1976; FLPMA); National Historic Preservation Act (1966, amended; NHPA); National Environmental Protection Act (1969; NEPA); & the Religious Freedom Restoration Act (1993; RFRA).

Each of these statutes is discussed briefly in the draft Handbook. Those interested in obtaining a copy contact BLM State Office Archaeologist Garth Portillo at 801/539-4276 or BLM State Office, Salt Lake City UT 84145-0155.

#### USU CONTRIBUTIONS TO ANTHROPOLOGY

1. **The Late Puebloan Inhabitants of White Mesa: Evidence From An Archaeological Survey For A New Utah Army National Guard Armory in Blanding, San Juan County, Utah.** By W.B. Fawcett. 1992. \$3.00

2. **Evaluation Of The Cultural Resources Impacted By The Salmon River Road, Idaho.** By W.B. Fawcett et al. 1993. \$3.00

3. **Anthropological Studies Of The Pahrnagat Paiutes And Other Inhabitants of the Slopes of Mount Irish, Lincoln County, Nevada.** By W.B. Fawcett et al. 1993. \$7.00

4. **Archaeological Investigations In the Jarbidge Mountains, Humboldt National Forest, Nevada: Progress Report 1992 Season.** By S.R. Simms. 1993. \$3.00

6. **Prehistoric Human Skeletal Remains And The Prehistory Of The Great Salt Lake Wetlands.** By S.R. Simms et al. 1991. \$6.00

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**Investigations of Cultural Resources in Northern Utah.** 1993. Includes Contributions: 5 **An Archaeological Survey Of The Proposed Davis County Junior High School in Kaysville, Davis County, Utah.** By W.R. Latady, Jr. 7 **An Archaeological Survey Of The Proposed Point Lookout Mountain Broadcasting Tower, Box Elder County, Utah.** By W.R. Latady, Jr. 8 **An Archaeological Survey In The Blacksmith Fork, Sheep Creek, and Pete's Hollow Area, Cache County, Utah.** By W.R. Lewelling. 9 **Archaeological Survey and Excavation Of A Historic Period Cabin at Bear Lake, Utah.** By S. Beckstead et al. 10 **A Cultural Resource Inventory Near Fruitland, Duchesne County, Utah.** By M. Hall et al. 11 **A Cultural Resource Survey Of The East Bear Lake Road Right Of Way In Rich County, Utah.** By J. Porta et al. 12 **Reports On Two Human Skeletons From Cache Valley, Utah.** By C.J. Loveland. \$5.00

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13 **Archaeological Reconnaissance In the Lower Bear River Marshes, Utah.** By S.R. Simms. 1990. \$4.00.

**14 Archaeological Test Excavations In The Great Salt Lake Wetlands And Associated Analyses, Weber And Box Elder Counties, Utah.** By W.B. Fawcett et al. \$15.00.

**15 Human Settlement Along The East Fork Of The Virgin River: Archaeological and Historical Surveys Of The Muddy Creek-Orderville Project, Kane County, Utah.** By W.B. Fawcett. \$15.

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Mail Orders To: Bill Fawcett, SSWA, USU, Logan UT 84322-0730. Make checks payable to Utah State University.

### **A LIST OF TRIBAL REPRESENTATIVES & CONTACTS FOR CONSULTATION PURPOSES**

The following information was extracted from the list maintained by the National Park Service Departmental Consulting - Archaeologist (7/1993). The Editor requests submissions corrections, revisions or supplements for inclusion in an up-dated version in an upcoming UPAC NEWS. More formal comments or articles are welcome.

Mr. Leonard C. Burch, Chair Southern Ute Tribal Council, Ignacio CO 81137-0737 303/563-0100; FAX -0396

Mr. Terry Knight, Sr. Ute Mountain Ute Tribe, Towaoc CO 81334-0053. 303/565-6412; FAX -7412

Mr. Harvey Spoonhunter Sr., Chair Arapahoe Business Council, Ft Washakie WY 82514-0396. 307/332- 6120; FAX - 7543

Mr. Darwin St. Clair Sr, Chair Shoshone Business Council, Ft Washakie WY 82514-0217. 307/332- 3532; FAX -3055

Mr. Keith Tinno, Chair Fort Hall Business Council Shoshone-Bannock

Tribes, Ft Hall ID 83203-0306. 208/238-3700; FAX -0797

Mr. Leonard M. Alex, Chair Northwestern Band of Shoshoni Nation, Blackfoot ID 83221-0637. 208/785-7401

Mr. Samuel N. Penney, Chair NezPerce Tribal Executive Committee Lapwai ID 83540. 208/843-2253; FAX -7354

Mr. Lawrence Bear, Chair Skull Valley Executive Committee, Ft Duchesne UT 84026-0130. 801/722- 2406; FAX 831-6126

Uintah & Ouray Tribal Business Committee, Ft Duchesne UT 84026- 0190. 801/722-5141; FAX -2374 Skull Valley Goshute Tribe, Grantsville UT 84029-0485. 801/250- 5911 ext 2020.

Mr. Harlin Pete, Chair Goshute Business Committee, Ipapah UT 84034-6104. 801/238-1138; FAX - 1162

Mr. Wil Numkena, Director Division of Indian Affairs, 324 S. State St, Suite 103, Salt Lake City UT 84111. 801/583-8808

White Mesa Ute Council, Blanding UT 84511-0340. 801/678-3397.

McKay Pkyavit, Kanosh Band Of Paiutes, Kanosh UT 84637-0178. 801/759-2660; 586-1112

Vera Charles, Chair Koosharem Band of Paiutes, Richfield UT 84701. 801/896-9025.

Mr. Alex Shepard, Chair Paiute Tribe of Utah, 600 N 100 E Cedar City UT 84720. 801/586-1112; FAX -0896.

Shivwits Band Of Paiutes, Santa Clara UT 84765-0391. 801/628-1468.

Mr. Leigh Jenkins, Director Hopi Cultural Preservation Office Kykotsmovi AZ 86039-0123. 602/734- 2441. FAX - 2435.

Angela Bullets, Cultural Resource Committee, Kaibab Paiute Tribe, HC65 Box 2, Fredonia AZ 86022. 602/643-7245. FAX -7260.

Mr. Petersen Zah, President Navajo Nation, Window Rock AZ 86515. 602/871-6352; FAX -4025.

Mr. Joseph Sanchez, Governor Pueblo of San Felipe, San Felipe NM 87001. 505/867-3381; FAX -3383.

Inez Baca, Governor, Pueblo of Sandia, Bernalillo NM 87004-6008. 505/867-3317; -9235.

Mr. Eliseo Raton, Governor Pueblo of Santa Ana, Star Rte Box 37, Bernalillo NM 87004. 505/867-3301; FAX -3395.

Mr. Alvino Lucero, Governor Pueblo of Isleta, Isleta NM 87022. 505/869-3111, -6333, -4236.

Mr. Jose Pecos, Governor Pueblo of Jemez, Jemez Pueblo NM 87024. 505/834-7359; FAX -7331.

Mr. Harry D. Early, Governor Pueblo of Laguna, Laguna NM 87026. 505/552-6654; FAX 243-9636.

Mr. Reginald T. Pasqual, Governor Pueblo of Acoma, Acoma NM 87034-0309. 505/552-6604; FAX -6600.

Mr. Thomas Moquino, Governor Pueblo of Santo Domingo, Santo Domingo NM 87052-099. 505/465-2214; FAX -2688.

Mr. Moses Shiji, Governor Pueblo of Zia, San Ysidro NM 87053. 505/867-3304; FAX -3308.

Cedric Chavez, Governor Pueblo of Cochiti, Cochiti NM 87072-070. 505/465-2244; FAX -2245.

Mr. Charles Dorame, Governor, Pueblo of Tesuque, Rte 11 Box 1, Santa Fe NM 87505. 505/983-2667; FAX 982-2331

Mr. Elmer Torres, Governor Pueblo of San Ildefonso, Rt 5 Box 315A, Santa Fe NM 87501. 505/455-2273; FAX -7351.

Mr. Jacob Viarrial, Governor Pueblo of Pojoaque, Rt 11 Box 71, Santa Fe NM 87501. 505/455-2278; FAX -2950.

Mr. Herbert Yates, Governor Pueblo of Nambe, Rt 1 Box 117BB, Santa Fe NM 87501. 505/455-2036; FAX -2038.

Mr. Walter Dasheno, Governor Pueblo of Santa Clara, Espanola NM 87532-0580. 505/753-7326; FAX -8988.

Mr. Reyes Martinez, Governor Pueblo of Picuris, Penasco NM 87553-0127. 505/587-2519; FAX -1071.

Mr. Simon Cata, Governor, Pueblo of San Juan, San Juan Pueblo NM 87566. 505/852-4400; FAX -4820.

Mr. Jose Samora, Governor Pueblo of Taos, Taos NM 87571-1846. 505/758-9593; FAX -8831.

Ms. Rosalyn Mike, Chair Moapa Business Council Moapa NV 89025-0340. 702/865-2787; FAX -2875.

Mr. Kenny Anderson, Chair Las Vegas Colony Tribal Council #1 Paiute Dr, Las Vegas NM 89102. 702/386-3926; FAX -4019.

Mr. Jerry Charles, Chair Ely Colony Council Te-Moak Tribe of Western Shoshone, 16 Shoshone Circle, Ely NV 89301. 702/289-3013; FAX -3156.

Mr. Boyd Graham, Chair Duckwater Shoshone Tribe, Duckwater NV 89314-140063. 702/863-0227; FAX -0301.

Mr. Davis Gonzales, Chair Elko Band Council, Elko NV 89801-0748. 702/738-8889; FAX -5439.

Mr. Larry Kibby, Consultant Western Shoshone Historic Preservation Society, 1545 Silver Eagle Dr, Elko NV 89801. 702/738-7070.

Mr. Lindsey Manning, Chair Shoshone Paiute Business Council, Owyhee NV 89832-0219. 702/757-3161; FAX -2219.

Mr. Bruce Stevens, Chair Wells Band Council, Te-Moak Tribe of Western Shoshone, Wells NV 89835-0809. 702/752-3045.

## **THE HANTAVIRUS AND ARCHAEOLOGY**

Eric Blinman Museum of New Mexico  
Office of Archaeological Stds  
As of Feb. 1994, 35 deaths in the United States have been attributed to acute Hantavirus infections (Hantavirus

Pulmonary Syndrome). Many of these have occurred in the Southwest, and some cases have been confirmed as far back as 1975. This rate of infection is extremely small compared to other diseases, but the high mortality rate (63 percent of 59 known acute cases) is cause for concern. Given what is currently known (and not known) about the virus and its transmission, archaeology is considered an at-risk occupation for the disease. The purpose of this article is to summarize the information presented at a Hantavirus workshop held on 3 Feb. 1994 in Ganado, Arizona. Tony Klesert and the Navajo Nation Archaeology Department organized and hosted the workshop and officials and researchers from the Indian Health Service (IHS) and Centers for Disease Control and Prevention (CDC) provided up-to-the-minute information concerning the disease.

**Background** Hantaviruses are a class of viruses that can be associated with human disease. The viruses all have small-mammal hosts, and when transmitted to humans the viruses can cause illness that ranges from benign to fatal. Most of our knowledge of these viruses comes from Asia, and prior to the current outbreak, only three viruses were known to be present in North America. The previously known American Hantaviruses are not known to cause illness in humans, but the recently identified virus (tentatively called the Muerto Canyon Virus, or MCV) may prove to have the highest mortality rate of any of the Hantavirus family. Since MCV has only recently been reproduced in the laboratory, little is known about its specific properties or behavior, and much of our decisions over the next year or two must be based on what we know about the Hantaviruses in general.

**Epidemiology** Since medical experience with MCV is limited, our understanding of

the infection comes from the preliminary results of 17 in-depth case-control studies conducted by IHS, CDC, and state health departments. Infection is correlated with small-mammal infestations and activities that bring people into contact with rodents and their feces and urine. Contact need not be direct, and there is some indication that contaminated airborne particles (dust) can be inhaled or ingested, resulting in infection.

The recent outbreak of the disease in the Southwest follows a peak in small-mammal populations, related in part to an increase in natural food supplies. Although deer mice have been named as the principal host species, the 1993 trapping program encountered some level of Hantavirus infection in most species that were trapped. This includes ground squirrels, woodrats, and chipmunks, as well as three species of mice. No prairie dogs were trapped, and their rate of infection is unknown. Infected animals were trapped in both urban and rural settings, with infection rates ranging from 10 to 40 percent. It is not known whether some or all species of infected animals can transmit the virus to humans.

In the case-control studies, acute human infections were linked with high small-mammal populations. Sheer numbers of animals seem to be important, since MCV prevalence in rodent populations was not significantly different between the case and control sites. People were slightly more likely to become infected if they engaged in hand cultivation (hence the possible link with archaeology), domestic cleaning, or rodent trapping. However, in only one case have two co-resident or related people come down with the infection. This implies that there is no human-to-human transmission (also true of other Hantaviruses), and it implies that the rate of infection per exposure is extremely low, since 'co-residents presumably share the increased

risk of exposure when small-mammal infestations are high.

Men and women have been equally affected, but to date there have been no confirmed cases in children under 12. Although half of the confirmed cases have been Native Americans, rural lifestyle probably will turn out to be a more strongly indicated factor than genetic or cultural predisposition. Between 1 and 3 percent of two test populations in the Four Corners area appear to have been exposed to the disease (nonfatal cases, with or without acute symptoms), although these figures are based on tests for the generic Hantaviruses rather than for MCV specifically.

Acute infection-results in symptoms called Adult Respiratory Distress Syndrome (ARDS), a syndrome associated with many diseases, not just MCV infection. ARDS is accompanied by a fever of more than 101degrees and body aches, with or without gastrointestinal involvement. The distinctive and often fatal aspect of the disease is an extremely rapid buildup of fluid in the lungs. Oxygen therapy appears to be the most effective treatment, and the benefit of antiviral drugs remains uncertain. Early detection appears to correlate with improved survival rates, and intensive care is mandatory. Incubation periods for other Hantaviruses range from 7 to 45 days.

Although the threat of this disease is serious due to its high fatality rate, the relative danger must be placed into perspective. Residents of the Southwest are at similar or greater risk of contracting plague, and of the more than 50,000 deaths that are attributed to unexplained ARDS each year in the United States, only a small fraction can be attributed to MCV.

### **Risk Reduction in Archaeology**

Since little is known about the actual behavior and properties of MCV, prevention

recommendations must take the form of general risk reduction. Also, although hand cultivation is a potential link between the known infections and archaeology, archaeologists may be at similar or greater risk in the domestic as compared with the work environment. In this regard, recommendations should be considered broadly applicable.

The basic principle of risk reduction is to minimize contact with small mammals and their waste products. Since the infection rate in the small-mammal population is so pervasive, this means avoiding contact with all small wild animals. One positive note: there is no indication (yet) that domestic cats or dogs either contract or transmit the disease. Other prevention activities are based on the assumption that if MCV is like other Hantaviruses, it is extremely fragile, and its viability outside of its host is limited. Although there are as yet no laboratory data to evaluate it, the assumption of extreme fragility is given some support by the circumstantial evidence of the extremely low human infection rate. Sunlight, drying, and mild disinfectants probably will prove to be sufficient to kill MCV.

Potential hazards we can expect to encounter in archaeology are work in and adjacent to active nesting and feeding areas, where both the animals and their fresh waste products can be found. Nesting areas can include caves, rock shelters, and wood piles, as well as intact or partially intact structures. The hazard is assumed to be minimal if the infestation is not active, but care should be taken not to stir up dust until an active small-mammal occupation can be discounted. Duff in pinion-juniper woodland could pose a risk, but in the known cases of infection, there has been no significant association with pinon nut harvesting.

If survey work needs to proceed in a suspect area, especially historic structures,

several steps can be taken to reduce risk. If possible, the area should be ventilated, ideally for 30 minutes or more before work commences. Inspection and recording activities should avoid raising dust, and the archaeologist should avoid direct contact with potentially contaminated deposits, objects, or surfaces (look but don't touch). If contaminated deposits cannot be avoided, the best approach is to soak the area or deposit with a mild chlorine solution (three tablespoons of bleach per gallon of water). After 10 minutes, work may be initiated in the area, with moderate assurance that any MCV presence has been considerably reduced or eliminated (assuming that the virus behaves like other Hantaviruses).

Use of dust masks also reduces exposure risk. Dust masks will not stop the virus itself, but they will stop many common dust particles that may carry the virus. Canister dust masks with high efficiency particle filters are an option for extremely high-risk situations, but use of this type of mask in the work place requires a formal training program and health monitoring, since the effort required to breath through the mask may strain the pulmonary systems of some people. Disposable high efficiency particle filter masks, and disposable nuisance dust masks, provide progressively lower but still significant levels of protection, and these alternatives are easier to use in field situations. If work must proceed in settings where dust has not been disinfected, goggles also should be used to reduce potential contact between the virus and the eyes. Dust mask effectiveness is markedly reduced if worn over a beard.

Live and recently dead rodents (and fresh nests) are often encountered in field situations and pose potential threats of both MCV and plague. If a rodent infestation is encountered under the plastic sheeting that is often used to protect excavations, the area

should be ventilated, waste disinfected with chlorine solution, and any nesting or waste products removed from the work area.

Carcasses can be soaked with disinfectant and handled with tools or disposable gloves after 10 minutes; they should be double-bagged for conventional disposal.

Dust generated by mechanical equipment (backhoes, front-end loaders, and blades) may be contaminated, but only to the extent that deposits containing fresh virus are disturbed. In most cases, the risk from this activity will be less than that associated, with other archaeological tasks. Standing upwind of equipment is the safest alternative, and dust masks and goggles can reduce risk as well as enhance comfort.

**Conclusion** Cases of Hantavirus Pulmonary Syndrome have such a high fatality rate that MCV infections must be taken seriously, despite the extremely low infection rate. Because of the ubiquity of the virus and our lack of knowledge of specific transmission mechanisms, no precautions can completely eliminate the risk of contracting the disease. Reduction of exposure to rodents and their waste products is prudent, and simple common-sense solutions can allow archaeological investigations to proceed with levels of risk comparable to or even lower than the risk we all are exposed to in our homes. As research on the behavior, ecology, and fragility of the MCV virus progresses, more specific recommendations will be possible, and those recommendations will be passed on to at-risk professions and the public as they are available. (Source: NewsMAC '94 #2)

## CURRENT RESEARCH

Alpine Archaeological Consultants,  
Montrose CO.

Kanab Land Exchange During July 1993 two thin artifact scatters were tested as part of a land exchange in the BLM Kanab RA. 60 m<sup>2</sup> excavated at 42KA3494 and 8 m<sup>2</sup> at 42KA3495 revealed Southern Paiute ceramics at both sites and a Desert Side-notched point at 3494. 7 C14 dates from features at 3494 and 1 from 3495 indicate 2-3 episodes of occupation: 5 features date AD 1210-1480, 1 AD 1438-1666 & another AD 1670. The date for 3495 coincides with the earliest component at 3494. True corrugated Southern Paiute ceramics are associated with this occupation, and fingernail marked Paiute utility ware with the most recent feature. Numerous rabbit bones were recovered, but few larger mammals. The draft report was submitted 1/1994 to BLM.

Zion NP Ruins Stabilization During Oct-Nov 1993 6 sites (42WS102, 120-122, 1163, 1167)--all Virgin Anasazi-- were stabilized under contract with the Rocky Mtn NPS office. 1163 was excavated by Ben Wetherill in the 1930s and remained unbackfilled. 1-20 structures exist at each of the other sites. They were backfilled, walls repaired at 5 of them, and graffiti removed at 2. All repairs used unamended mortars that matched the originals.

UT Forest Hwy 5 Excavations at a high-elevation lithic scatter (42WA125) during 8/93 funded by FHWA under contract through NPS removed 19m<sup>3</sup> to expose 0.6m of rodent disturbed deposits, for which 2 C14 dates were obtained. A Pinto point (6300-4200 BC) was found. Positive cross-over electrophoresis results on 2 artifacts

indicate bighorn sheep blood. The report by Alan Reed should be available spring 1994.

UDOT170 data analysis continues on 11 sites excavated by the U of Pittsburgh in 1988-89. An unusual late Fremont surface dwelling of jacal at 42EM1881 is C14 dated to the 10-13th centuries AD and associated with Bull Cr points and Emery Gray. Corn occurs in the dwelling and a small adjacent midden. 5 pit structures and numerous associated extramural features excavated at 42EM1887 are associated with Rosegate point, burned corn cobs, and C14 dates of AD 400-650. Ceramics (gray wares) only occur in stratigraphically higher deposits dated AD 650-1200. The draft final report is due 1/1995.

USU Anthropology Research,  
Logan UT.

In addition to the 1993 Archaeology Field School in the Jarbidge Mountains (NV), students have been involved in several large projects--site surveys (SCS Muddy Cr-Orderville, Kane Co. UT), test excavations (BOR Willard Bay, Box Elder & Weber Co. UT), EIS studies (Salmon R. Rd, ID)--and numerous smaller surveys (Pete's Hollow and Tremonton, Cache Co.; Davis Co. Jr School), funded by government agencies and private individuals in advance of land altering activities. Reports from these and other projects are available in the USU Contributions to Anthropology Series (see Publications). Statistical analysis of surficial artifacts at 24 pueblo ruins within the Muddy Cr-Orderville project indicates that on 70% of the decorated sherds have been removed by collectors, making settlement studies almost impossible. Planned projects include the test excavation and survey around a rock shelter near Moab.  
--Bill Fawcett

## ON THE MOVE

Signa Laralde has moved from the BLM to the Bureau of Reclamation (BOR) in Salt Lake City, and can be reached by phone at 801/524-5447. This BOR office is responsible for the Colorado River drainage down to Glen Canyon dam and the Great Salt Lake Basin. We hope that the new job goes well, and that Signa is enjoying her retirement from editing the UPAC NEWS.

## CALENDAR

Jun 6-10, 1994 Fife Conference: Folklore & Life Cycle. UT State U, Logan 84322-5005. 801/797-0423

Sept 18-21, 1994 Reclaiming for the Future, 16th Annual Abandoned Mine Land Programs Conference, Park City UT. Contact: Luci Malin (801/538-5340) Div of Oil, Gas & Mining, Salt Lake City UT 84180- 1203. Workshop 1 (2:30-5) 9/19 is on cultural/ historic compliance.

Sept 29-Oct 2, 1994 Plains Indian Seminar: Power & Beauty--Horses of Plains Indians. Lillian Turner, Buffalo Bill Historical Ctr, Box 1000, Cody WY 82414. 307/587-4771 ext 248

Oct 6-8, 1994 24th Great Basin Anthropological Conference, Elko Convention Center, Elko NV.

Nov 10-13, 1994 American Society for Ethnohistory meetings at Radisson Mission Palms Hotel, Tempe AZ. Contact Dr. Peter Iverson, 602/965-5778.

Nov 30-Dec 4, 1994 93rd American Anthro. Assn. Meeting, Atlanta GA. 703/528-1902 ext 3025

Jan 4-5, 1995 Society for Historical Archaeology, Washington DC. 301/862-0968

## THE NEXT NEWSLETTER

Items for the next newsletter should be send to the Newsletter Editor no later than Sept. 1, 1994. Any submission of greater than 100 words should be accompanied by a computer disk with text saved on it either in IBM-readable ASCII or Wordperfect 5.1. Text should be prepared as illustrated in this newsletter.

## 1994 MEMBERSHIP DUES

If you want to join UPAC or have not (yet) paid your 1994 dues send:

Professional \$25.00

Student \$12.50

Associate \$12.50

Affiliate \$12.50

to Nancy Shearin, UPAC Treasurer. Professional and student members vote and receive the newsletter and journal (*Utah Archaeology*). Associate and affiliate members only receive the newsletter.