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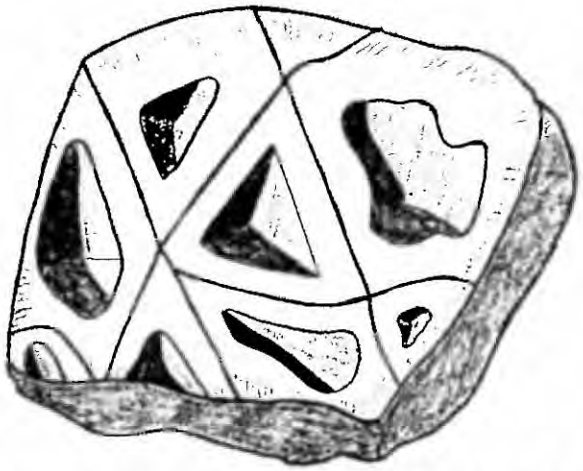

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See the article by B. Amme, starting on Page 17

Nevada Archaeological Association

Nevada Archaeological Association

The design for the NAA logo was adapted by Robert Elston from a Garfield Flat petroglyph.

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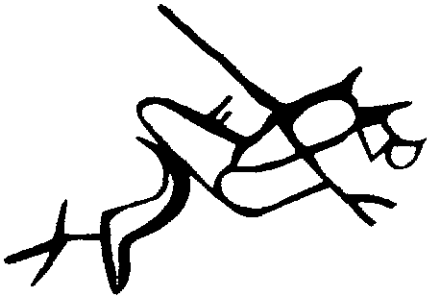
Manuscripts submitted to the *Nevada Archaeologist* should follow the style guide of the April, 1983 issue of *American Antiquity*. Manuscripts should be typed and double spaced throughout, including notes and bibliography, and illustrations should be camera-ready with a caption typed on a separate sheet of paper, also double-spaced. Something less than these standards will be accepted reluctantly if what you have to say is more important than the format expressed above.

More manuscripts relating to Nevada archaeology and anthropology are solicited.



NEVADA Archaeologist

Volume 8 1990

EDITOR'S NOTE

As this issue is readied for the printer in late June, we are saddened to hear of the death of Dr. Cynthia Irwin-Williams in Reno. Cynthia was known to most of us, and her loss will be felt by friends and colleagues far beyond the borders of the state of Nevada.

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A CLOVIS POINT FROM LABOU FLAT, CHURCHILL COUNTY, NEVADA

Anan W. Raymond
U.S. Fish and Wildlife Service
Fallon, Nevada

In 1986 a collector found a Clovis point near Labou Flat in Fairview Valley, Churchill County, Nevada. A friend brought the artifact to my attention and I describe it in the following paragraphs.

Location

The collector discovered the Clovis point on land restricted to public access by the Fallon Naval Air Station. At the time he worked on the ground in support of the Navy's training missions in the skies above Fairview Valley. The collector no longer works for the Navy, so the site could not be revisited. Nevertheless, the collector provided me with a detailed description of the locus of his find.

The Clovis point was encountered about 1.2 km south of the Labou Flat playa at approximately 1273 meters (4183 feet) above sea level (Figure 1). The artifact rested upon the surface of a dirt track cleared by a Navy road grader. Although other flaked stone artifacts were seen in the road, their temporal association with the collected point in unknown. From nearby towers technicians drive radio-controlled "mobile land targets" along the length of the dirt road. Meanwhile pilots maneuver jets at around 200 miles per hour towards the road, dropping Mark 76 twenty-five pound general-purpose practice bombs on the mobile targets.

The sparse vegetation adjacent to the track consists of saltbush (Atriplex) and greasewood (Sarcobatus) species. Just north of the site lies the modern remnant of Pluvial Lake Labou (Hubbs and Miller 1948:44). Capt. Simpson (1859:84) described the playa as a "whitish clay flat...smooth and hard as a floor...the glare almost blinding". Israel C. Russel (1855: plate XXIX facing page 156) seems to have been the first to recognize the basin's interior drainage. However, Pluvial Lake Labou may have joined Pluvial Lake Dixie to the north during periods of increased moisture in the Pleistocene (Hubbs and Miller 1948: 44). Today, Labou Flat holds water only after heavy local precipitation. Springs and washes emanating from nearby Fairview Peak and the Sand Springs Range feed the basin. The playa takes its name from M. Labeau who operated the nearby Fairview House and Toll Road between 1866 and 1872 (Churchill County 1866-1872).

Manufacture

Close examination of the Labou Clovis point permits a few observations about its manufacture. Metric data is provided in Table 1. The point is manufactured from a translucent dark grey obsidian containing fibrous appearing flowlines which do not hinder the conchoidal properties of the stone. Irregularly spaced, collaterally oriented pressure-flake scars cover the majority of both faces of the artifact (Figure 2). On face A the pressure flake scars do not completely obliterate the scars left by percussion flaking, which was executed earlier in the manufacture of the point. The remnants of four

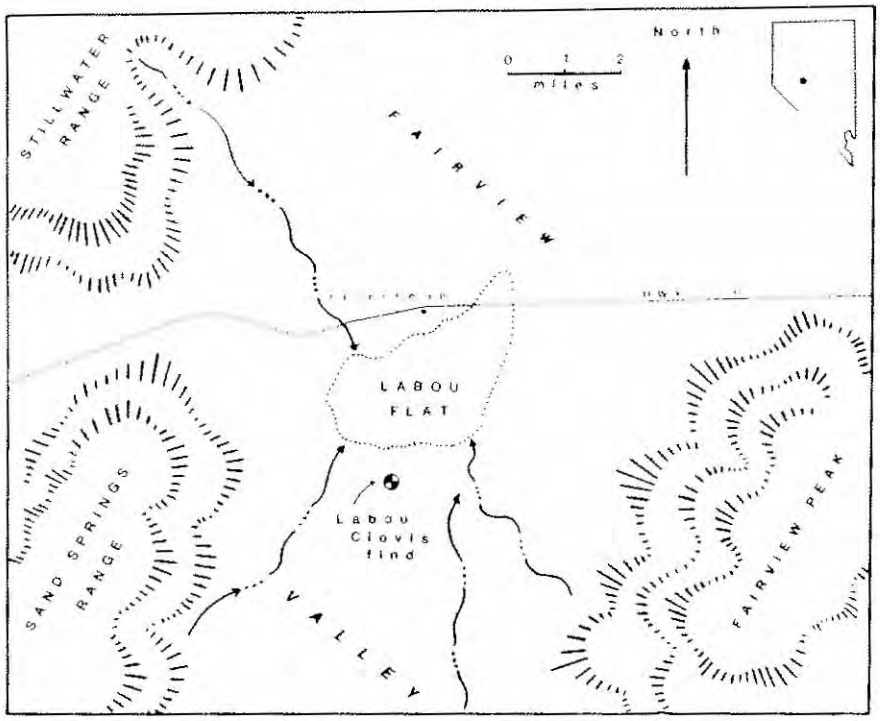

Figure 1
Location of the Labou Clovis Point

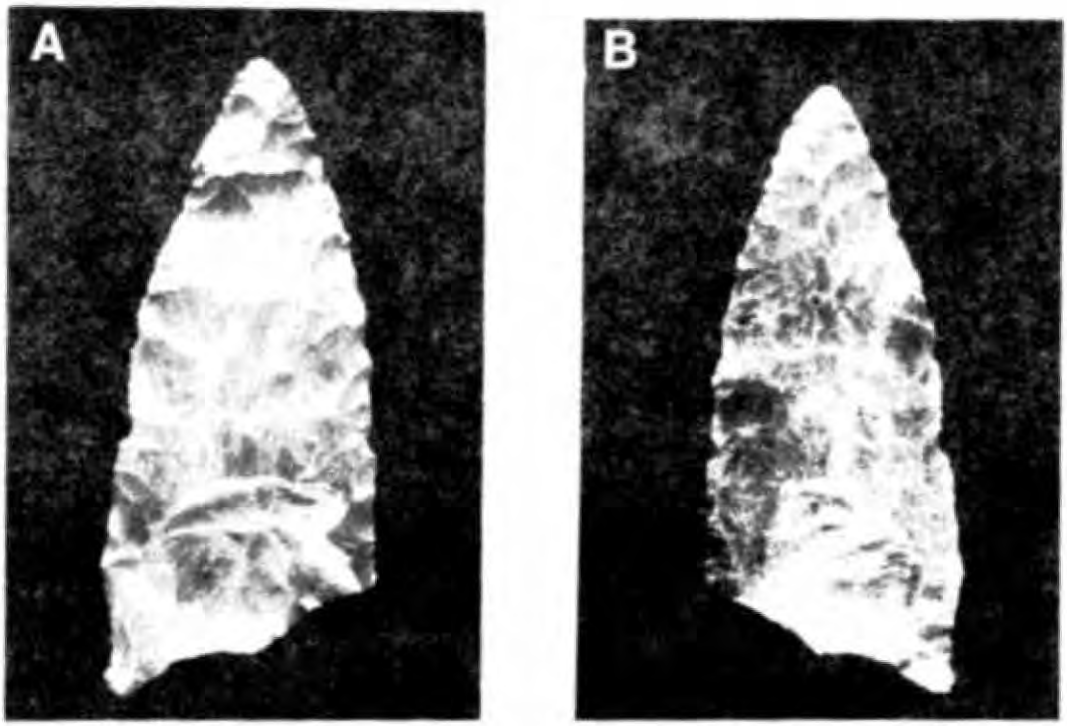

Figure 2
Faces A and B of the Labou Clovis Point, Coated With Aluminum Powder To Enhance Detail

percussion scars exist along the midline of the point on face A. Three very small (1 mm square) remnants of what appear to be percussion flake scars occur on face B.

Table 1
Attributes of the Labou Clovis Point

Length	65.6 mm
Width	28.2 mm
Thickness	9.5 mm
Thickness Through Flute	4.7 mm
Length of Fluting	
Face A	17.8 mm
Face B	14.8 mm
Width of Fluting	
Face A	22.5 mm
Face B	18.4 mm
Weight	14.2 gm

The lenticular cross section of the Labou Clovis point facilitated removal of the channel flakes. Fluting has left the basal portion of the point half as thick as the blade (Table 1). Apparently the ancient flintknapper was most concerned with thinning the base because multiple channel flakes were removed from both faces. On face A the flintknapper first removed 2 long parallel channel flakes that terminate with a hinge. Then, in an effort to remove the arris (or ridge) formed by the shared margin of the first channel flakes, two short narrow flakes were detached up the middle of the base. A fifth and final basal thinning flake was removed on the left lateral margin of the flute. This flake flattened and widened the bulbar concavity created by the previous flake removals.

Face B shows evidence of 3 channel flakes. The flintknapper first detached a deep wide flake that terminated with a hinge. Then the craftsman removed a small narrow flake along both sides of the initial channel flake scar. These two flakes eliminated the negative bulb and associated topographically high lateral margins left by the removal of the first channel flake. This technique results in a thin basal cross section. Similarly fluted Clovis points have been recovered elsewhere in Nevada (Davis and Shutler 1969:figure 2, 4, 5; Reno 1985:fig 2), Idaho (Titmus and Woods 1988:15), and among the Dietz Clovis assemblage in Oregon (Fagan pers. comm.). Very small pressure flakes were removed to finish the base into a concave shape.

The flintknapper abraded the basal edge but not as much as the extant lateral margin. Some 12.4 mm of the extant lateral margin is well ground at the basal corner of the point (Figure 2). The extreme lateral corner of the point is unabraded and extends slightly beyond the profile presented by the ground margin. A break prevents confirmation of an abraded margin and barb on the other side of the basal portion of the point.

Wear

The Labou Clovis exhibits considerable damage. It is unknown whether the damage is from use as a weapon or from forces unassociated with prehistoric humans.

The break at the right (face A) basal corner of the Labou Clovis does not appear to be fresh. A cone of force at the intersection of face A and the fracture surface indicates that the break initiated directly (Hayden 1979:133) on face A. The fracture terminated with a hinge

(Crabtree 1972:68) on face B. Two small pits near the cone of force suggest that upon breakage the two fragments came together to detach tiny flecks of obsidian. The fracture and pits suggest the point broke from forces directed against the face of the hafted weapon. Perhaps the hafting material held the fragments together forcing them to come in contact. The breakage of the basal corner may be associated with use, discard, or loss of the point in prehistory.

A 10-20 power binocular microscope revealed numerous worn arrises, miniature flake scars, and ring cracks on both faces of the artifact. Arrises, or the ridges formed by the common boundary of flake scars, are topographically the highest places on the face of a stone tool. Along the longitudinal midline of the Labou Clovis these arrises are well worn. Face A shows 20 mm of worn arrises, face B has 35 mm of worn arrises. These worn arrises may not have resulted from wind or water erosion. If such forces were a factor, all arrises on the artifact should show some wear. Some of the heaviest wear occurs on arrises defined by the intersection of the face of the blade and the distal end of the channel flake scars. The point is thickest here and it is this area that must sustain considerable stress when the hafted point is used as a penetrating weapon. One abraded arris which runs laterally across the face of the point shows perpendicularly oriented striations. These striations, oriented parallel to the axis of the point, suggest an in and out thrusting motion.

Examination through the binocular microscope revealed that the Clovis point contains many miniature flake scars and incipient cone fractures (cf. Crabtree 1972:54). As with the abraded arrises, the miniature flake scars and incipient cones occur along the topographically high midline of the point. The miniature flake scars (less than 1 mm square) signal the detachment of short wide flakes from ridges ad other topographic high points on the artifact. The miniature flake scars invariably terminate with a hinge. The incipient cone fractures are tiny circular or semicircular cracks (ring cracks). The ring cracks have failed to break through the stone completely and dislodge a flake. Miniature flake scars and incipient cones often overlap and merge with one another. Together they suggest numerous episodes of severe impact loading, often oriented perpendicular to the face of the blade. Such wear is not expected with a penetrating weapon. However, experiments with hafted Clovis points would be necessary to confirm the cause of the wear described here. Face A contains 9 miniature flake scars and incipient cones, while 41 of these features were observed on face B. Perhaps the wear on the Labou Clovis has resulted from use by a prehistoric hunter. However it is also possible that the observed damage was delivered by the hoof of a cow or the tread of a mobile land target.

Associations

The discovery of the Labou Clovis point pushes the range of "Early Man" (ca. 11,000 B.P.) occurrences deeper into the central Great Basin. Like so many Clovis points previously recorded in Nevada (Davis and Shutler 1969; Tuohy 1969), the Labou Clovis point was found near an extinct Pleistocene lake. Yet the Labou Clovis point is the first reported Early Man artifact for Fairview or Dixie

Valley (cf. Tuohy 1969). Pluvial Lake Labou and associated Pluvial Lake Dixie were relatively ephemeral Pleistocene phenomena (Hubbs and Miller 1948:44). As discrete basins of interior drainage, Labou Flat and Dixie Valley may offer a geoarcheological record of Early Man that is less complicated than that found in the larger basins to the north and west. Further explorations of the Dixie and Fairview deserts is warranted.

Acknowledgements

My thanks to Gene Titmus and Jim Woods, Herritt Museum, College of Southern Idaho. They examined the artifact and made comments on an earlier draft of this paper. I assume responsibility for errors in fact or interpretation. The Labou Clovis point is curated at the Churchill County Museum, Fallon, Nevada.

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ARACHNID TAPHONOMY: NOTE ON SCORPION REMAINS IN ARCHEOLOGICAL CONTEXT

Bryan Scott Hockett
University of Nevada, Reno

Introduction

Scorpions are chiefly nocturnal arachnids common throughout much of the desert west (Savory 1977). They dig burrows in caves, rockshelters, and open-air sites, and are sometimes found under objects such as rocks and vegetation (Williams 1987). Scorpions hunt other scorpions, insects, reptiles, and mice (McCormick and Polis 1982; Williams 1987), and in turn are eaten by small carnivores such as kit foxes (Vulpes macrotis) and nocturnal raptors (particularly barn owl [Tyto alba], burrowing owl [Athene cunicularia], screech owl [Otus asio], elf owl [Micrathene whitneyi] and great-horned owl [Bubo virginianus]) (Bond 1942; Brown et al. 1986; Polis et al. 1981; Williams 1966, 1987). Owls frequently regurgitate pellets of undigested matter in caves and rockshelters, and thus accumulate large numbers of scorpion remains in sites which also contain archeological materials.

Ethnographic literature does not mention Native Americans utilizing scorpions, but beads made of scorpion telsons (stingers) (Figure 1) were identified on necklaces from Kramer Cave, Falcon Hill, Winnemucca Lake Basin, northwestern Nevada (Figure 2) (photographs of telson beads can be found in Hattori 1982, figures 17a, b and 18). Therefore, both cultural and noncultural processes are responsible for depositing scorpion telsons in Great Basin archeological sites.

Telsons attached to complete or partially intact necklaces are undoubtedly beads, but isolated telson beads may not be distinguished from telsons deposited by noncultural agents such as owls. Comparing telson beads to those in owl pellets may reveal diagnostic human patterning on scorpion stingers, thereby rendering individual telson necklace beads recognizable in the archeological record.

Cultural Production of Telson Beads

Excavation of Kramer Cave recovered numerous perishable artifacts, including eleven necklace fragments containing a total of nineteen beads made of sand scorpion (Paruroctonus sp.) telsons (Hattori 1982). Kramer Cave telson beads measure four millimeters long by three-and-a-half to five millimeters wide (Table 1). Proximal and distal ends are broken open, producing holes for necklace cords to pass through bulbous mid-sections of stingers (the bulbous portion of stingers houses the poison in live scorpions). Polishing is visible on ends of beads, and probably results from telsons rubbing against adjacent juniper seed beads during movement of the necklaces.

Both ends of scorpion telsons had to be modified before using them as beads. Holes in distal ends were created by snapping off stingers, then enlarging the holes with a perforating tool such as an awl or simply an unmodified stick. Small holes occur naturally near proximal ends of telsons, and could be enlarged with any perforating device. Experimentation with intact telsons demonstrates necklace beads similar to Kramer Cave beads can be

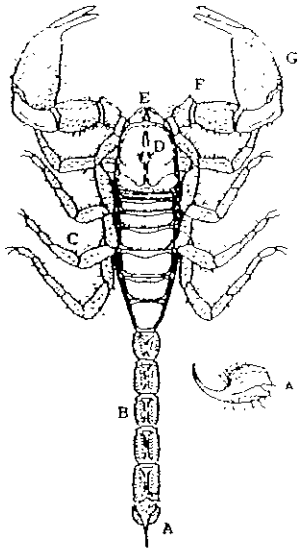

Figure 1*. Scorpion nomenclature: A) telson, B) sclerema, C) legs, D) carapace, E) chelicerae, F) pedipalp segments, G) pedipalp chelae

*Drawing reprinted from Savory (1977), courtesy Academic Press

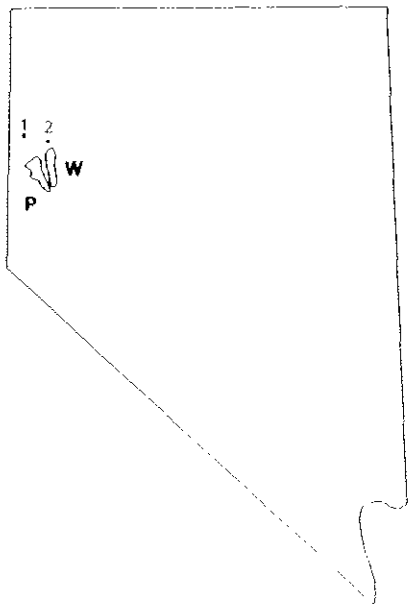

Figure 2. Locations of Two Ledges (1) and Falcon Hill (2), northwestern Nevada (P-Pyramid Lake; W Winnemucca Lake)

Table 1
Dimensions (mm) of telson beads from Kramer Cave, Nevada

Specimen #	length	width
1246A	4	3.5
	4	3.5
2271	4	5.0
	4	5.0
	4	5.0
	4	3.5
2289	4	3.5
	4	3.5
	4	3.5
	4	3.5

created in approximately thirty seconds by snapping off stingers and perforating proximal and distal ends with a stick.

Telsons From Owl Pellets

In 1988 I discovered numerous scorpion remains at Two Ledges, an active raptor roost located in the Smoke Creek Desert, several miles west of Kramer Cave (Figure 2). Two Ledges contains 30 intact barn owl pellets, 19,443 identifiable mammal bones and teeth, and 1,635 scorpion parts, including 102 telsons (Table 2). Owls undoubtedly regurgitated pellets full of scorpion remains at Two Ledges; Hattori (1982) reported great-horned owls deposited scorpion remains in a similar manner at Kramer Cave.

Table 2
Number of Identified Scorpion Parts (NISP) From Two Ledges, Nevada

Scorpion Part	NISP
Telson	102
Pedipalp Chelae	576
Pedipalp Segments, Legs, Scleroma	573
Carapace	17
Chelicerae	367
Total	1,635

Telsons from Two Ledges are two distinct sizes. Large telsons are approximately 1.3 centimeters long by six millimeters wide, and belong to adult large hairy scorpions (*Hadrurus sp.*). Small telsons are six to eight millimeters long by three to four millimeters wide, and probably belong to young large hairy scorpions, and young and adult sand scorpions. Telsons of similar size are therefore found in owl pellets as well as on prehistoric necklaces from Kramer Cave, although 65 of the 102 telsons from Two Ledges (63.7%) are large hairy scorpions (all telson beads from Kramer Cave belong to sand scorpions).

Telsons from owl pellets do not resemble Kramer Cave telson beads. Two Ledges contains mainly intact telsons, and 88 (86.3%) have intact stingers, although owl-modified telsons may also exhibit punctures or missing stingers, and occasionally crushed bulbous portions. Owl feeding behavior does not create large holes at proximal and distal ends of telsons, thus further modification is required for bead production.

Conclusion

Kramer Cave is the only Great Basin site reporting telson beads, which may reflect past inadequacies in archeological collecting techniques. For example, Hattori (1982:42) states: "Numerous, larger scorpion remains were observed in the back dirt of Shiners Site B [Falcon Hill, Nevada]." Ignoring individual scorpion telsons in archeological sites may be ignoring actual artifacts. However, telson bead production may be restricted chronologically, and a phenomenon unique to northwestern Nevada. Hattori (1982) believes all artifacts from Kramer Cave date

between 3,600 and 3,900 years ago, and he notes that other items modified into necklace beads such as more than two thousand juniper seeds, fish vertebrae, and bird skin strips, represent a unique assemblage of artifacts from Winnemucca Valley.

Native Americans may have captured live scorpions to obtain telson bead blanks (or stingers), but they more likely collected telsons from owl roosts, as weathered raptor pellets containing scorpion remains are conspicuous along bedrock ridges in northwestern Nevada. Finally, large numbers of nonculturally-accumulated scorpion remains indicate owls have affected the faunal composition of archeological sites.

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CRM ARCHEOLOGY AND THE SOUTHERN GREAT BASIN

Kevin Rafferty
University of Nevada, Las Vegas

I read with great interest a recent Society for American Archeology (SAA) Bulletin article by Dincauze (1988) concerning various aspects of the self-study survey of the SAA. Most troubling was her comment that a large percentage of individuals responded with a feeling of hostility and what can be best described as condescension towards practitioners of public or Cultural Resource Management (CRM) archeology. This attitude has been expressed, and reinforced, in print and at professional meetings. Raab et al. (1980) and Wendorf (1979) have descried the potential pitfalls and problems of CRM archeology in no uncertain terms. At the 1989 SAA meeting in Phoenix, out of a total of 76 symposia, only two -- one on human remains and one on public education -- could be said to have originated from the public or CRM side of the profession. In total number of papers, as determined from institutional affiliations of authors, only 7.6% (49 of 641) were either solely or senior-authored by individuals affiliated with CRM firms. Even after adding the government affiliations, CRM-related papers comprised only 14.3% (92 of 641) of the papers presented. This is from an organization whose membership is composed of at least 36% CRM/public archeologists. The message is clear: Public archeologists are second-class citizens at the major professional meetings.

Fortunately, Dincauze (1988) points out several ways in which public archeology supports scholarship and academic archeology: 1) Providing protection for archeological resources; 2) Performing large-scale inventories that no academic institution could provide; 3) Developing funding for new methods of fieldwork and analysis; 4) Testing models developed in academia of past human lifeways against large new data bases; 5) Providing provenienced artifact collections for academia to use in teaching and research; 6) Providing training and employment for a new generation of students in academia; 7) Providing career tracks and opportunities that academia cannot accomplish; and 8) Creating new interest and awareness among the public, thus providing archeology with a new constituency.

The purpose of this paper is to present data from the southern Nevada region in specific support of some of Dincauze's contentions. Data from the Nevada Department of Transportation (NDOT) and the Division of Anthropological Studies (DAS) of the Environmental Research Center, University of Nevada, Las Vegas, will form the backbone of this paper. These two organizations conduct a great deal of the archeological research in southern Nevada. Additionally, the author is most familiar with these organizations. For support of my propositions I also refer to work in southern Nevada by other firms, most prominently the Desert Research Institute (DRI) of the University of Nevada System and Intermountain Research (IMR) in Silver City, Nevada.

The Organizations

Southern Nevada is herein arbitrarily defined as consisting of

Clark, Lincoln, Nye and Esmeralda Counties. This actually extends the study area into central Nevada, and covers about one-third of the state.

The NDOT, although a state agency, operates much like an independent contractor. It is mandated by federal law to inventory cultural resources on public lands within highway rights-of-way. At the present time, NDOT hires archeologists on a contract basis, placing them under contract to NDOT but not making them permanent state employees. Thus NDOT combines features of both private contracting firms and government CRM specialists.

The DAS, although attached to the University of Nevada, Las Vegas, survives solely on its' ability to bid on and win contracts. DAS also serves as southern Nevada's center for reports and site records, and curates in UNLV's Museum of Natural History the artifacts collected during testing and excavation projects.

The Data

The time frame for this paper consists of 1983-1988, a period chosen because it coincides with my term as Director of DAS, and is the period for which I am familiar with the scope and quality of work conducted there. Also the records for these years are in particularly good shape for both organizations and thus serve as a good baseline data set for this study.

In this period, NDOT has surveyed approximately 40,095 acres of highway right-of-way in southern Nevada. The acreage ranged from a low of 2686 acres in 1987 to a high of 14,159 acres in 1984. In this period 262 archeological sites were recorded. Of this total, 233 were prehistoric, ranging in age from the Lake Mojave period (ca. 12,000 - 7000 yrs. B.P.) to the late Paiute/Numic period (ca. 850 - 100 yrs. B.P.). Site types included isolated artifacts, small and large lithic scatters, base camps, rockshelters, rock feature sites, pithouses, roasting pits, quarries, hunting blinds and petroglyphs. Sites have been recorded in every floral and biotic community ranging in elevation from valley floor (Creosote bush/Sage brush) to higher elevations (Pinyon/Juniper). In addition, 29 historic sites have been recorded, including railroad construction camps, railroad berms, dumps, towns or sidings, cabins, graves, mining camps, roads and isolated artifacts.

NDOT has not been involved merely in a mindless search for locations, but has undertaken three testing programs in this period. The first was at Mainline Junction or Millers, in Esmeralda County, a site associated with the Tonopah and Goldfield Railroad around the beginning of the twentieth century (1907-1914). Although aimed mainly at determining the eligibility of the site for nomination to the National Register, NDOT archeologists attempted to deal with problems such as evidence of possible ethnicity at the site and the physical and cultural make-up of a typical "company town" associated with western railroads at this time (Knight 1985).

The second site, Skylight Shelter (Matranga 1985), was a small rockshelter located in a highway right-of-way in Nye County. It was tested because of potential impacts to the site, and to determine its eligibility to the National Register of Historic Places (NRHP). It was discovered that the site contained a

Fremont component, which raised some interesting questions concerning the presence of Fremont peoples in central Nevada. The NDOT project also considered questions of chronology, site function and settlement and subsistence.

The third project consisted of a testing program at a site called Bead Bench, in Lincoln County. This Fremont village site, not completely written up yet, is capable of shedding more light on the Fremont occupation of eastern Nevada, and should make interesting reading.

In this same period, DAS has surveyed 19,493 acres in southern Nevada, in projects ranging in size from small drill pads to large-scale sample surveys in the Las Vegas Valley and eastern Clark County. Yearly totals ranged from a low of 849 acres in 1988 to a high of 5870 acres in 1986. A total of 424 sites were recorded, the overwhelming percentage of which are prehistoric, ranging is age from Lake Mojave to the late Paiute/Numic period. Types of sites include all the same type as were recorded by NDOT, and in nearly every conceivable biotic zone in southern Nevada except for alpine and tundra. In addition to the surveys, testing or data recovery for the purpose of the mitigation of negative impacts was conducted at 41 sites.

A number of the projects run by DAS had wider goals in mind than just clearances. A three year survey of portions of the northern and southern Las Vegas Valley was concerned with discerning the settlement/subsistence patterns of the prehistoric inhabitants of the region through time. Year 1 examined mainly Virgin Anasazi and Paiute and Lower Colorado River groups that resided in the area. Year 2 concentrated on the Lake Mojave period, while Year 3 examined potential patterns of resource exploitation and residence in the northern valley (see Rafferty 1986 for a summary). These survey data have where possible been amalgamated with data from other projects in the Las Vegas Valley. All of this work has aided in expanding our knowledge of the Las Vegas Valley and patterns of prehistoric activity in the region (see also Rafferty and Blair 1984a, 1984b, 1987).

DAS and NDOT are not the only organizations doing work in the region. As of 1984, the Desert Research Institute's work on the Nevada Test Site had surveyed 10,790 acres, recorded 178 prehistoric and 6 historic sites, and tested 30 of these for chronology, subsistence, resource procurement, trade and other problems (Pippin 1984). In addition, DRI's survey of the Groom Mountain Range area that was originally illegally seized by the Air Force resulted in 13,600 acres being surveyed and 265 prehistoric and historic sites being recorded (Reno and Pippin 1986).

Archeological Research Services surveyed portions of the Mormon Mountains, examining 15,040 acres and recording 239 sites (Rusco and Munoz 1983). In addition, IMR excavated seven sites in the Panaca Summit area of eastern Lincoln County, examining site function, artifact variety and patterning, settlement/subsistence patterns, chronology and trade. This area was exploited by Fremont groups, and the research shed new light on the functioning of this culture in the eastern Great Basin (Elston and Juell 1987).

There have been other large projects that have covered major

areas of the study zone. Most prominent, and most unfortunate, were the MX surveys which covered 8480 acres, recording 77 sites and 138 isolated artifacts. Due to the failure of the Air Force to commit itself to a proper analysis and writeup of the data, a full examination of the data and its implications for our understanding the prehistory of southern Nevada have not been realized (Holmer 1983).

This cursory overview reveals that CRM has more than satisfied several of Dincauze's (1988) criteria: Large scale resource surveys, new or more detailed methods of fieldwork and analysis, the examination of models concerning human lifeways, training students, and employing archeologists who otherwise would be unemployed. Contract archeology and contract archeologists have recorded the grand majority of sites in southern Nevada, which are plentiful: 4099 in Clark County, 799 in Esmeralda County, 5585 in Nye County, and 3864 in Lincoln County. These data are available for use by academics, students and other researchers. In fact, several Master's theses from the Department of Anthropology at UNLV have employed portions of the data quite fruitfully (cf. Blair 1986; Myhrer 1986; Tullis 1984). This is just a small example of what CRM or public archeology can offer academia.

Solving the Problems Between Academia and Public Archeology

The data base and health of the profession depends in a large way on the health and vitality of the public archeology sector. All of us can recite the legends about poorly conducted or incompetently executed work conducted by contractors. By the same token, many academic projects suffer from the same level of poor execution, and it is not unheard of for artifacts from sites to collect dust in academic institutions for 10-15 years before they are analyzed and written up. As Fowler (1986:176) eloquently wrote "We've learned to our sorrow, if not our surprise, that bad archeology is bad archeology, whether done under the guise of academia, or of CRM".

What can be done to at least reduce the problems between the two sectors of our profession? Others have written about the need for more detailed training, particularly in theory and ethics, and these suggestions are all fine and good. But the problem is more basic than that; it is one of respect. First, I believe that some academics need to realize that in many cases the public archeologists out there are <u>their</u> students who received their first training and grounding at the very institutions where it is fashionable to bemoan the sorry state of public archeology. If some contractors show little or no technical competence and just as little theoretical expertise, it should be remembered who put them out there in the first place. It can and should be a humbling experience.

Secondly, additional training not traditional to archeology should be instituted. Courses in CRM, proposal writing, environmental and archeological law, administration and business management would be most useful. With 36 percent of the membership of the SAA being in public archeology, and fewer job opportunities in academia opening up, the need for this type of training increases every year (cf. Schuldenrein 1988). Particularly, courses in ethics and archeological

professionalism to reinforce the SAA/SOPA codes are needed desperately.

Thirdly, students should be encouraged to take summer jobs or part-time jobs with CRM firms or government agencies, if possible, and incorporate those experiences into the academic side of their training. A detailed examination of these experiences by the students and their mentors would be invaluable in defining new roles in archeology, dealing with unexpected and difficult ethical situations that occur, and would provide both student and professor with invaluable experiences. The Department of Anthropology at UNLV has recently instituted an internship program in conjunction with the local BLM office, granting students academic credit for work accomplished. This is an excellent start that could be applied at many other schools, particularly in times of tight federal budgets. Federal agencies are continually short-handed and understaffed, and would welcome such arrangements that would help them to accomplish their missions.

Academics and CRM specialists should also interact on the teaching level. Every department of anthropology should make use of CRM contractors and government archeologists as guest lecturers or adjunct faculty to talk with students about the benefits and pitfalls of contracting. In these times of tight budgets and reduced teaching staff, the contract archeologist could prove to be invaluable in passing on knowledge to a new generation of students.

In conjunction with the above approach, academic archeologists should make more effort to use the data generated by CRM archeologists. Every state in the west has a single repository, or series of repositories, in which report and site data are stored. Almost every BLM, Forest Service and other federal agency office also contains records pertinent to their management area. Contractors are required by their federal permits to deposit reports from their work with the relevant federal office in a timely manner. The data are available to all qualified archeologists, with relatively little effort. If more attempts were made by academic archeologists to employ the data, they would soon come to realize how valuable the data gathered by public archeology truly are.

These are just a few suggestions that I believe can help make all of our lives easier and foster greater understanding between the two sectors of our profession. It would be tragic if this rift, real or imagined, were to be allowed to continue. We need all the members of our profession to be united in order to deal with all the challenges currently facing us. If we are not united, then our enemies in congress, state legislatures and the business community that we know we have will walk over us and render us impotent. As Lincoln said, a house divided against itself cannot stand. Our internal bickering threatens to undo the progress of the last twenty years, and if that happens, we need look no further than ourselves to determine who the culprits are.

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EVIDENCE OF A POSSIBLE PROTO-HISTORIC TRADE ROUTE ENCAMPMENT NEAR ELY, NEVADA

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Introduction

In April, 1986, a somewhat enigmatic surface lithic scatter was identified during a cultural resource inventory by the Bureau of Land Management for an alternate access route to the proposed Nevada State Maximum Security Prison in Smith Valley (Amme 1986).

Smith Valley, about 5 miles north of Ely, Nevada, is a unique, once riparian basin which trends northwesterly along the west flank of the Egan Range, and is separated from Butte Valley by a low pass known as Piscovitch Summit. It thus forms a natural corridor connecting Steptoe and Butte Valleys.

Initially, the site was considered a Middle Archaic-age lithic scatter containing a large variety of lithic types. Temporal association was based upon the presence of diagnostic Archaic projectile point types (Elko corner-notched, Gypsum or Gatecliff contracting-stem). Further investigation, however, revealed even earlier diagnostic tools, such as edge-ground stemmed point bases

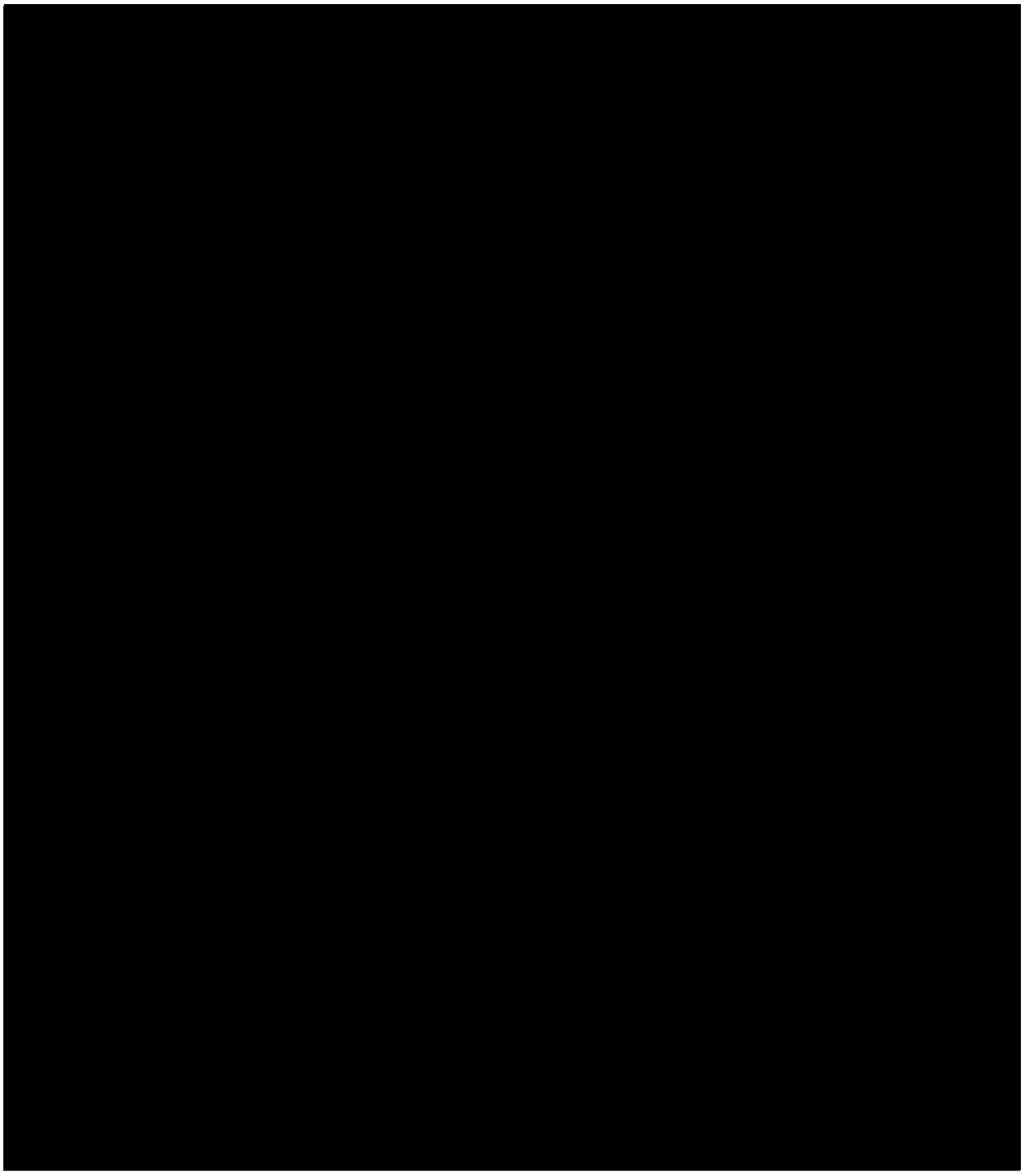

Figure 1

indicative of the Western Pluvial Lakes Tradition (WPLT), as well as even later time-diagnostic artifacts such as Fremont ceramics (800 - 600 B.P.), and Rosegate and Cottonwood projectile points (Late Prehistoric). In addition, some unusual manuports were also noted.

With this assemblage, the site fell into the standard and convenient explanation commonly employed by archeologists -- it was thought to be a multi-component lithic scatter. However, the unexceptional location of the site did not seem to lend itself to suggesting continuous or repeated occupation over the last 7,000 to 8,000 years. There are no obvious natural resources present at this location, and based on the assemblage present, known resources in the immediate area were apparently not exploited.

Description of the Study Area and Site

Site 046-4628 is centered on the western side of a gently sloping alluvial toe-slope of a ridge spur which descends rather abruptly off the south flank of Heusser Mountain in the Egan Range (Figure 1). There is nothing remarkable about the topography here. Soils are marginally developed, and the area is open, vegetated with a sagebrush and grass understory almost a mile south of an outstanding riparian/spring complex. The ridge spur physically separates Smith and Steptoe Valleys, and except for a prominent cut in the limestone bedrock referred to locally as "Hercules Gap," Smith Valley exists as a somewhat hidden cul-de-sac of Steptoe Valley.

One of the earliest written descriptions of this cut or water gap was in the report of Captain J.H. Simpson, an Army Engineer, exploring a direct wagon and telegraph route across the Great Basin in 1859. As Simpson writes in his report; excerpted from July 17th, Camp No. 19, Spring Cañon (now referred to as Smith Valley):

> Just at outlet of Spring Cañon into Steptoe Valley, 8.2 miles from camp on north side of cañon, there is a spur from the north wall or mountain of the cañon, through which there is a gap, gate, or cañon, which, for sublimity, on account of its confining walls, equals, probably, anything we have seen on the route. The walls are composed of a siliceous limestone, interstratified with shale, and are nearly vertical. There are several caves, niches, and benches to be seen high up the wall...I call the place the Gates of Hercules, on account of its stupendous walls. The echo in it is very fine, and our fire-arms have startled a great number of swallows and hawks. The road leaves this gate to the left about 0.5 mile, and 1.7 miles further down Spring Cañon brings us to Steptoe Valley...

Today we know, that in addition to swallows and hawks, pictographs of red hematite in the Fremont style are also present at the 'Gap' within the very caves and niches Simpson mentions. Along the west flank of the ridge spur, near the mouth of the 'gap' and adjacent

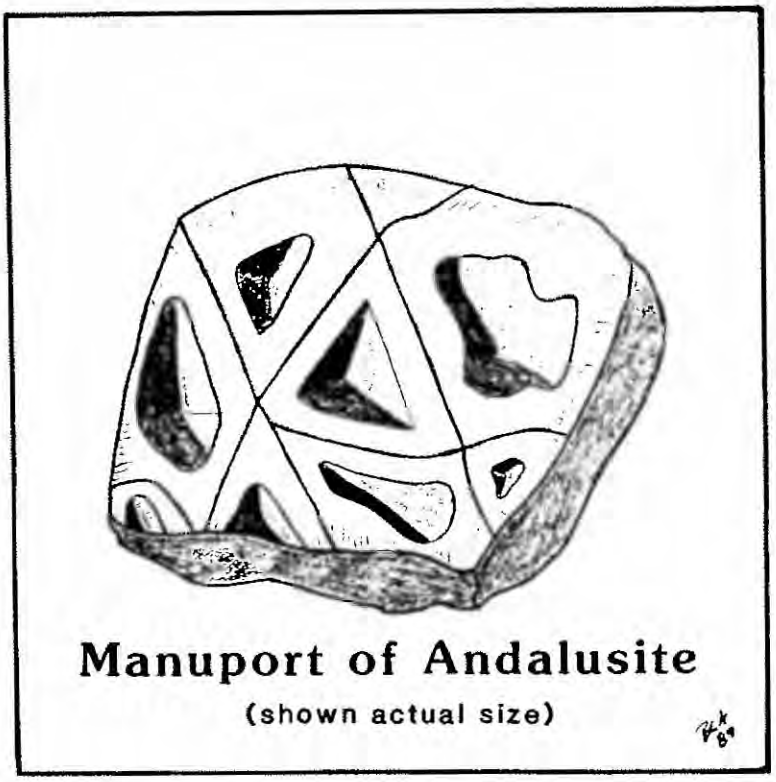

Figure 2

to the riparian/spring area, is an extensive basalt float quarry area.

Other inventories have revealed the presence of numerous associated basalt reduction loci throughout the vicinity. In contrast however, basalt is not the primary lithic type present on site 4628. By observing the site assemblage, which lacks any indication of lithic reduction or task areas, one would not even suspect a major basalt source located nearby.

The site consists of variably dense concentrations of secondary and tertiary flakes and tools, covering an area of approximately 9000 square meters (150m x 80m). The scatter has been extremely affected by slopewash and all material remains are in a commingled state. The site contains an unusually large variety of lithic types. Examples of lithics from almost every known or regionally suspected lithic source within a 50-mile and beyond radius are present. Over twenty-five individually distinct lithic types have been observed, including petrified wood. In particular, examples of lithics have been recognized from neighboring Long Valley, Butte Valley, and Spring Valley, to name a few.

The Assemblage Recovered From the Site

A partial list of the lithic

types include:

Grey chert, grey brecciated chert, jasperoid, wonderstone, Long Valley 'jade,' fossiliferous chert, chalcedony, translucent chert, banded obsidian, mahogany-banded obsidian, ignimbrite, basalt, green quartzite, pebble conglomerate, agate, dendritic chert, petrified wood, calcite, marble, mineralized or fossil bone, as well as a plethora of other fine varietal chert colors.

The diagnostic artifact assemblage includes: Great Basin Stemmed series, Large side-notch, Humboldt, Elko corner-notch, Gypsum or Gatecliff series as well as Rosegate and Cottonwood series.

Tools observed include: Numerous large and small bifaces and knives; a large white chert single-shouldered (probably hafted) knife; preforms; a steep-end scraper, and abrading stone, three drills; core choppers; utilized prismatic blade flakes; as well as a body sherd of a Fremont Snake Valley Grey bowl or jar. Unusual manuports present include a fragment of andalusite (a curious mineral with triangular-shaped vugs) (Figure 2) and numerous colorful, shiny, stream or water-worn pebbles.

Explaining the Assemblage

This assemblage raises a few questions, one of which is how to explain this temporal and regional agglomeration of lithic debris located in such a non-descript locality.

One explanation that has been entertained, other than the "multi-component" concept (and presuming this site is not a location where local collectors from miles around deposited all the less than perfect "keepers"), was that the spot was some sort of prehistoric ceremonial or festival site.

This hypothesis would contend that prehistoric groups from the neighboring valleys converged here. Each group possessed its own distinct, locally available lithics, and through the principle interchange, left a piece of its presence at the festival location. If this were done for thousands of years, then the wide temporal span of diagnostic tools would also be explained. However, this would not take into account the Fremont or Numic culture groups that are proposed to have migrated into the area from other regions.

Another hypothesis that may start to explain the site, somewhat, is derived from a closer examination of the source localities of the lithics represented and is also alluded to in the above description of "Hercules Gap" as given by Simpson.

In his description of the 'Gates of Hercules,' Simpson stated: "The road leaves this Gate to the left...[emphasis added]."

This is an interesting statement, for in 1859, an explorer would travel down few roads, if any at all, in Steptoe Valley, which at that time was in its infancy of being settled. Most of the immigration routes were already established to the north along the Humboldt River.

Prior to his description of the 'Gate;' however, Simpson had noted (of Spring Cañon):

> ...There is an old beaten trail down this

> cañon, about the largest we have seen on the trip. The Indians say it is the trail of the To-sa-witch band of the Sho-sho-nees, living about the Humboldt River, who yearly take this route, to trade horses with the Pahvant Indians about Fillmore [Utah]. These horses they probably get from the Bannacks, to the north of them.

The presence of a well-worn trail in eastern Nevada has been noted elsewhere. The so-called "Shoshone Trail," now followed by a four-wheel drive jeep trail, crossed from Spring Valley into southern Snake Valley over the South Snake Range in the vicinity of Big Wash and Mount Washington.

Steward (1938:277) noted:

> The Pahvant Ute were called Pavaduts (water people)...They ranged the deserts surrounding Sevier Lake west of the Wasatch Mountains nearly to the Nevada border...Villages were located in the vicinity of the present towns of Kanosh, Desert, Black Rock, Holden, Lyndyl and Scipio, each being the winter headquarters of a division of the band. Burton... gave 2 divisions in 1860; one at Sevier Lake and the northeastern part of Fillmore Valley, and one at Corn Creek farm. Many, though not all of the people had horses.

It would seem that the information given by Burton in 1860 and as gathered by Steward in the 1930s would concur with Simpson's informant in 1859.

Again, Steward also notes (1938:162):

> People who wintered on the Humboldt River above Battle Mountain were called Tosawi (Tosa, white + wi, knife) because they procured a high quality of white flint for knives in the mountains to the north...

Steward reiterates (1938:162):

> Simpson (1876, pp. 34-35) considers the To-sa-witches to be a separate division of the "Sho-sho-nee" who ranged along the Humboldt River in small parties between the Un-gowe-ah and Cooper's Ranges.

Although Steward does not specifically mention whether the Tosawi had horses or whether they even traded for them, the geographical description seems to also agree with Simpson's informant.

It would appear then that a possibility exists for contact between the Tosawi and the Pahvant. The idea of trade could be further reinforced by the fact that both groups actually possessed a valued commodity: The Pahvant had horses, and the Tosawi had high-grade white chert knives. While there is no established evidence knives were actually traded for horses, it could be argued that a mechanism for trade was present.

As mentioned above, the lithics on site 4628 seem to be derived from at least a 50-mile and greater radius, taking in most of the surrounding valleys. This may be misleading. With closer examination of the lithic types it can be noted that mahogany and banded obsidians are known from both the Confusion Range and the Black Rock Desert of Utah to the southeast, areas well within the Pahvant historic range. Other lithics are derived from Spring Valley to the southeast, and Butte Valley, Long Valley, and the Maverick Range to the northwest.

A pattern begins to emerge, not of lithics derived within an imaginary 360 degree radius, but of lithics derived from a route along a line between the Humboldt River near Battle Mountain and Southwestern Utah.

With the Tosawi chert test in mind, the site 4628 was revisited. A biface fragment was collected and has been tentatively identified as Tosawi chert. The one fragment of mineralized bone present is possibly derived from Pliocene fossil mammal bone-bearing ash beds found near the Humboldt River and its tributaries.

Discussion

While the argument for a trade route camp consists only of visual observations and a literature search, the data are certainly provocative. More detailed analysis involving X-ray diffraction and trace element analyses to determine actual lithic source areas are certainly needed in order to establish the nature of site 4628.

Additional questions relating to evidence of proto-historic trade routes still remain. For instance, assuming this site-type could be recognized based on lithics, how many of these types of sites along this particular route is one likely to identify between the Humboldt region and southwest Utah? Were these sites repeatedly used or were different camps used every year? During what time of year would travel occur? The ethnographic accounts presented above indicate travel was between traditional wintering areas of the bands.

The fact that the trail is described as well-beaten may suggest that specific campsites were repeatedly used and that these sites may be situated in strategic locations along the trail, possibly a day's travel apart. How far is a day's travel, and would a day's travel be by foot or horseback? What would constitute strategic site selection?

If one takes into consideration a small party travelling long distances through other so-called 'territories,' some possibly hostile (Simpson notes in this region the presence of abandoned wicki-ups and charred skulls within), the choice of site location for 4628 can be viewed in a new light. It is not surprising that the site is not located near essential resources such as good water or toolstone quarries.

For a trading party travelling down Smith Valley, northwest to southeast, this site location would not be visible from Steptoe Valley. Steptoe inhabitants would not necessarily be aware of the presence of an arriving party. It may be that this route was used to intentionally by-pass the only two other likely routes into Steptoe Valley from the northwest; one through Egan Canyon and the other through the mouth of Gleason Canyon

(now Ely, Nevada) -- both locations of ethnographic villages.

The Smith Valley location possesses some attributes which could be considered as favorable for a strategic stop-over: It is separated although not far distant from a prime water source and adjacent to a small ridge to gain a scouting vantage, prior to coming into open visibility of Steptoe Valley.

Conclusion

It poses an interesting problem to back-track a prehistoric or proto-historic trade route. Some of the data presented above may bring to light the clues that must be searched for in recognizing such site-types. The clues indicating stop-overs along the "Tosawi or Shoshone Trail" may possibly be seen in the lithic debitage present, rather than diagnostic artifacts. Site 4628 contains a full range of diagnostic point types, and it is suspected that their presence are more the result of aboriginal 'curation,' rather than evidence of distinct cultural components.

Other clues may be seen in historical accounts, the postulated presence of tradeable commodities, and a site-location strategy with a value placed not on available resources but on perhaps, visibility, or lack thereof, to other human populations. One piece of evidence briefly touched upon earlier that may possibly provide a significant diagnostic link between campsites along this trade route may actually be in the oftentimes overlooked and unexplained presence of unusual manuports, in this case shiny water-worn pebbles.

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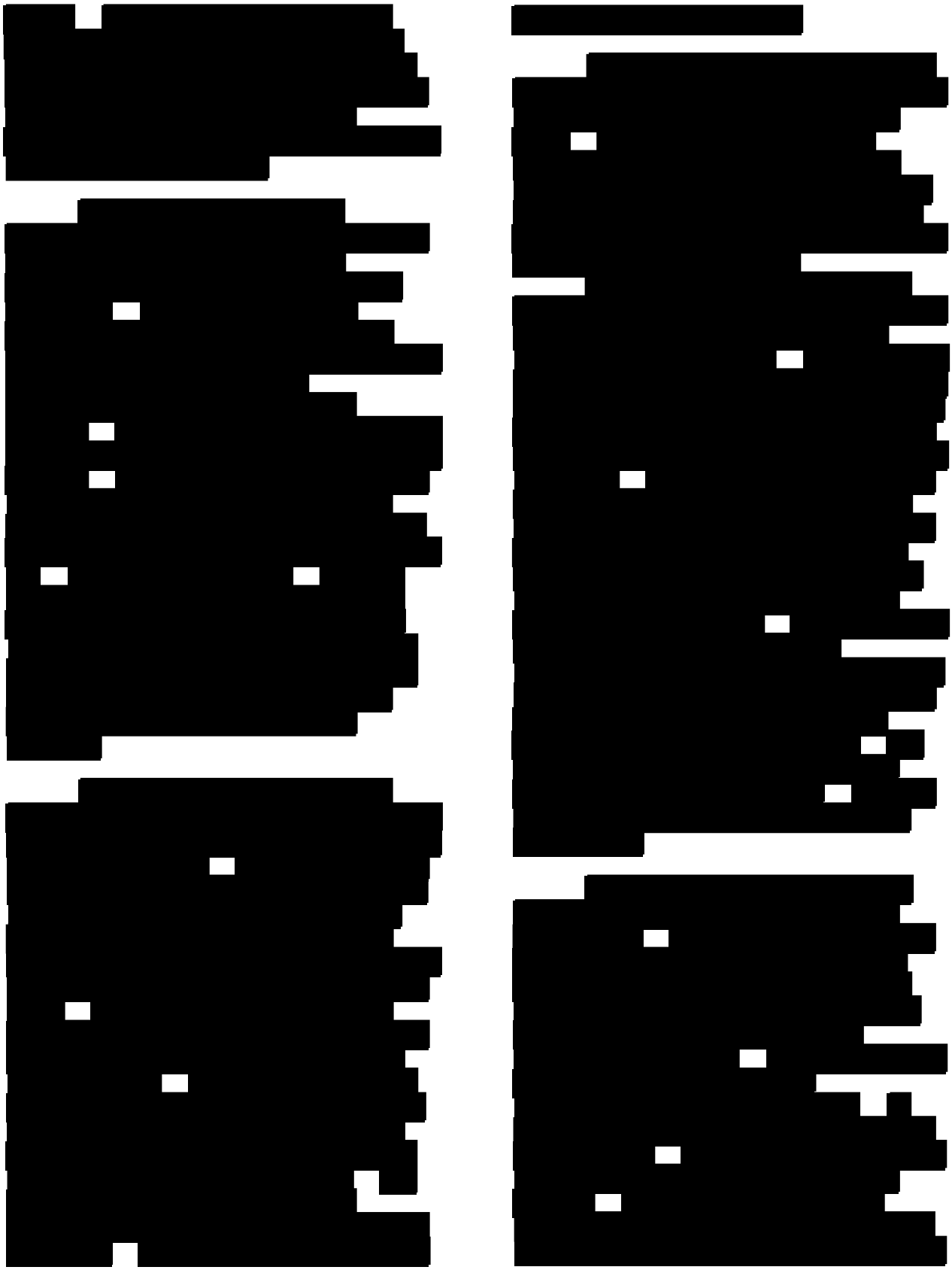

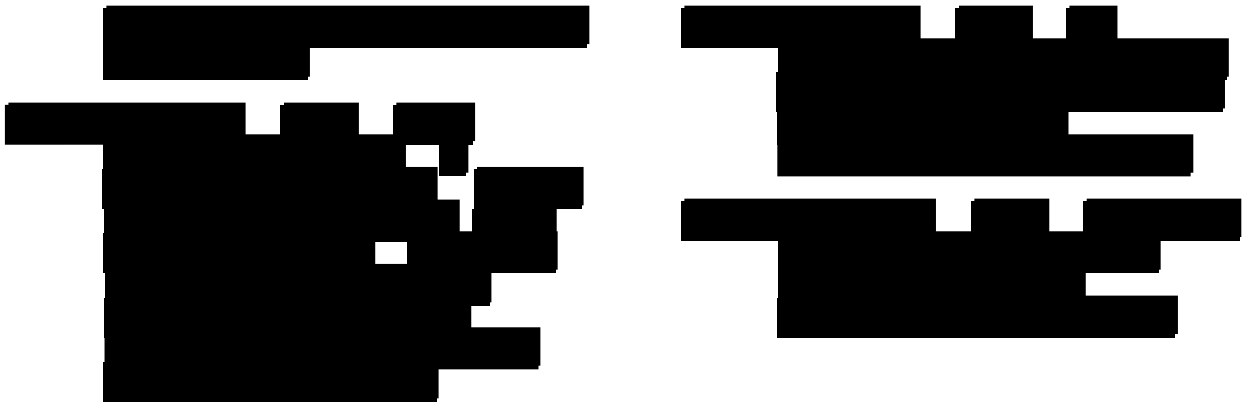

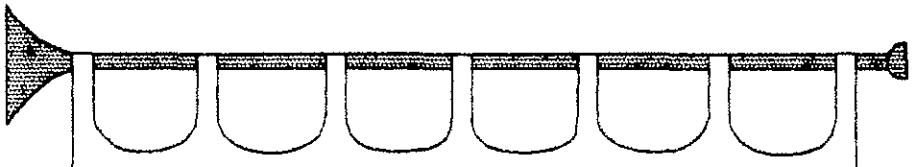

PLAN TO ATTEND THE GREAT BASIN ANTHROPOLOGICAL CONFERENCE

PRELIMINARY SCHEDULE AND REGISTRATION FORM ON THE NEXT PAGES

Come to Reno
12-14 October 1990

GREAT BASIN ANTHROPOLOGICAL CONFERENCE -- 1990

OCTOBER 12-14, 1990

at the

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Sponsored by:

Dept. of Anthropology, Univ. of Nevada, Reno
Quaternary Sciences Center, Desert Research Institute
Nevada Archaeological Association
Utah Professional Archaeological Council

Program Chair: Robert Kelly (Univ. of Louisville)
(505) 588-6864; fax: 588-5055
Local Arrangements: Don Fowler, Cleda Burney
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The preliminary program for conference presentations is enclosed. The final program and abstracts will be distributed at the conference.

Schedule of Events

Thursday, Oct. 11, 5:00-9:00 PM Registration, Main lobby
Friday, Oct. 12, 8:00 AM-5:00 PM Registration, Main lobby
Friday, Oct. 12 -Saturday, Oct 13, 8:00 AM-5:00 PM, Gem Center, Second Floor, Book Exhibits
Friday, Oct. 12, 8:00 AM-5:00 PM, Conference sessions
Friday, Oct. 12, 5:30-7:30 PM, No Host Cocktail Party, Skyline Center, 14th Floor. Sponsored by Utah Professional Arch. Council
Friday, Oct. 12, 7:30-10:00 PM, Banquet, Skyline Center. Speaker: David Hurst Thomas, "From the Basin to the Sea Islands."
Saturday, Oct. 13, 8:00 AM-5:00 PM. Conference sessions
Saturday, Oct. 13, 1:00-2:00 PM Poster sessions
Saturday, Oct. 13, 7:30-10:00 PM Plenary session
Sunday, Oct. 14, 8:00-12:00 AM Conference sessions

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Advance Registration: ____ Professional $25.00; ___ Student $10.00

Banquet tickets: ____ tickets @ $13.50 per person (drinks extra)

Total funds enclosed: _____(Make checks payable to "GBAC 1990")

Faculty signature verification of student status: _____

_____

Registration fee include admission to all conference sessions, except banquet, and copy of final program and abstracts.

Registration fees after Sept. 20, 1990 will be: $30.00 professional, $15.00 student. Banquet tickets are limited to 150, and will be distributed as registration forms are received, on a first come-first served basis.

Hotel reservation forms are enclosed. You must make hotel room reservations directly with the Holiday Inn, Downtown. Be sure to specify that you are registering for the GBAC to get the conference rate.

Mail Conference Registration Form and Check
Made Out To GBAC 1990 To:

Cleda Burney, GBAC
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Reno, NV 89557-0006

The Nevada Archaeological Association was organized in 1972 to provide a bond of communication between professionals in the field of archaeology and its allied sciences, members of various amateur organizations, and the people of Nevada towards the furtherance of public education and involvement in responsible preservation of Nevada's finite archaeological and historical resources.

The need for recording these cultural resources of the past for the enlightenment of future generations grows more pressing with each day of development and progress. The goals of the Nevada Archaeological Association are: to provide a focal point for general information and study of non-renewable cultural resources; to provide a central point for recording artifact collections from Nevada and the Great Basin and the verbal knowledge of provenience and associations accompanying these collections; to correlate this knowledge with that information already professionally recorded for the mutual benefit of the amateurs and professionals with research interests; to provide assistance with education towards responsible public participation in archaeology; to assist in the preservation of sites by the establishment and maintenance of a registry of available, capable, and technically skilled amateurs in Nevada who would be able to work with professionals in accordance with the Code of Ethics and Standards of Research Performance as advocated by the Society of Professional Archaeologists, particularly in the immediacy of salvage archaeology; and to provide a bond of communication between professionals, amateurs, and the general public by publishing a journal, *Nevada Archaeologist.*

To these ends the Nevada Archaeological Association was incorporated in 1972, in the State of Nevada, with its organizational and editorial offices as listed on the inside cover. Membership is open to all those interested in the archaeology, ethnology, and history of the human inhabitants and their natural habitats in Nevada, the Great Basin, and adjacent environs.

ARCHAEOLOGICAL SOCIETIES IN NEVADA

NEVADA ARCHAEOLOGICAL ASSOCIATION OFFICERS

NAA President 90	Helen Mortenson
NAA Treasurer 90	Robert Leavitt
NAA Secretary 90	Ramona Reno
NAA Board	Pat Barker
NAA Board	Dianne Jennings
NAA Board	Robert Elston
NAA Board	Susan Murphy
NAA Board	Dawna Ferris

In Fallon: Churchill County Chapter of the NEVADA ARCHAEOLOGICAL ASSN.

President:	K. Oglesby
Secretary-Treasurer:	Maie Nygren 6800 Mission Road Fallon, Nevada 89406
Telephone:	(702) 423-2212

In Reno: AM-ARCS OF NEVADA

President:	Analise Odencrantz
Treasurer:	Lewis White
Secretary:	Mickey White
Telephone (Pres.):	(702) 331-6840
Address:	P.O. Box 10384 Reno, NV 89510

In Las Vegas: THE ARCHAEO-NEVADA SOCIETY

President:	Helen Mortenson 876-6944
Treasurer:	David Dwyer 735-4878
Secretary:	Barbara Boyer 645-4529
Activities & Membership:	Grace Burkholder 293-6311

Residents of all other Nevada communities are asked to join the Nevada Archaeological Association until such time as there are sufficient numbers of people willing to form local chapters of the above organization. Information on the Constitutions and By-laws of the above organizations may be obtained at cost from the secretaries of the above organizations.

IN MEMORIAM

Cynthia Irwin-Williams