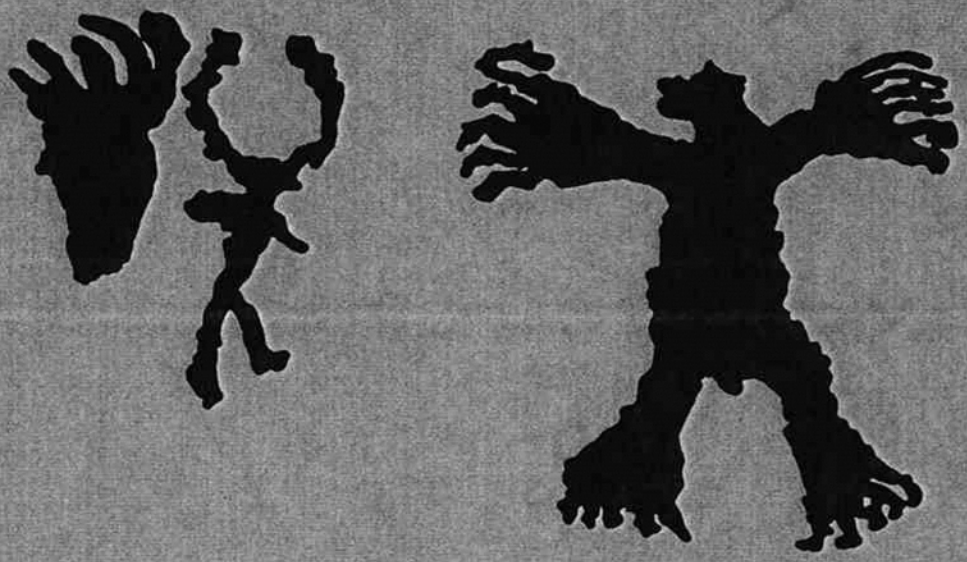
COLORADO COUNCIL OF PROFESSIONAL ARCHAEOLOGISTS



ARCHAEOLOGY OF THE EASTERN UTE: A SYMPOSIUM

Edited by Paul R. Nickens

CCPA OCCASIONAL PAPERS

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Edited by

Paul R. Nickens

Colorado Council of Professional Archaeologists

1988

Dedicated to

Omer C. Stewart

Esteemed Professor Emeritus
at the University of Colorado
and
Mentor to Colorado archaeologists
interested in Ute archaeology

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INTRODUCTION

by

Paul R. Nickens

The Ute Indians, historic period aboriginal inhabitants of much of what land is now the states of Colorado and Utah, have been the subject of much scholarly and popular attention over the past one hundred years or so. Our knowledge of Ute cultural patterns and their territorial distributions have come primarily from the writings of eminent ethnographers such as Robert Lowie, Marvin Opler, Anne Smith, Julian Steward, and, of course, Omer Stewart. Much of the pertinent ethnographic information on the historic period Ute has recently been summarized in the Great Basin volume of the Handbook of North American Indians (Calloway et al. 1986).

While the former Ute territory is fairly well defined (Figure 1), the internal subdivisions are much more difficult to delineate. As Calloway and his co-authors observe (1986:338-339): "A definative history of the numerous Ute bands is made difficult by their fluid membership, the high mobility of most of them in the historic period, and shifts and inconsistencies in the names used for several of them." It is common, however, to divide the various bands into eastern and western units, with the Green and Colorado Rivers forming the boundary between the two groups of bands.

For the purposes of the symposium, the emphasis is centered on the eastern bands which are oftentimes grouped as follows: Southern Ute -- Mauche, Capote, and Weeminuche bands in south-central and southwestern Colorado; Uncompahgre (Taviwach) band in west-central Colorado; and White River -- Parusanuch and Yampa bands in northwestern Colorado (see Figure 1).

In spite of the relative wealth of information on the post-contact Ute and their lifeways, it is fair to note that archaeological data are generally thought to be lacking, both for the prehistoric and early historic periods. Indeed, a common theme in each of the recently completed volumes for the Colorado Historical Society's prehistoric background studies centered on either the dearth of information or the difficulty of understanding it when it came to discussing Ute archaeology in the various regions of central and western Colorado (Eddy et al. 1984; Grady 1984, Guthrie et al. 1984, and Reed 1984). Interestingly, the same situation occurs in Utah for the western Ute area where Jennings (1978:235) in his treatise on Utah archaeology also points to a near complete absence of archaeological data on the Ute.

This often-stated problem with Ute archaeology has for some time been an enigma to me, for I know, as a Colorado archaeologist, that there is a considerable amount of information available from a variety of sources. Some of this information is readily accessible and some of it is not, but it is there -- in journals, dissertations, theses, cultural resource management reports, state and federal agency files and archives, museum collections, and so forth. The basis of the problem, I think, lies in the fact that no one in the illustrious past of Colorado's archaeological endeavors has had the

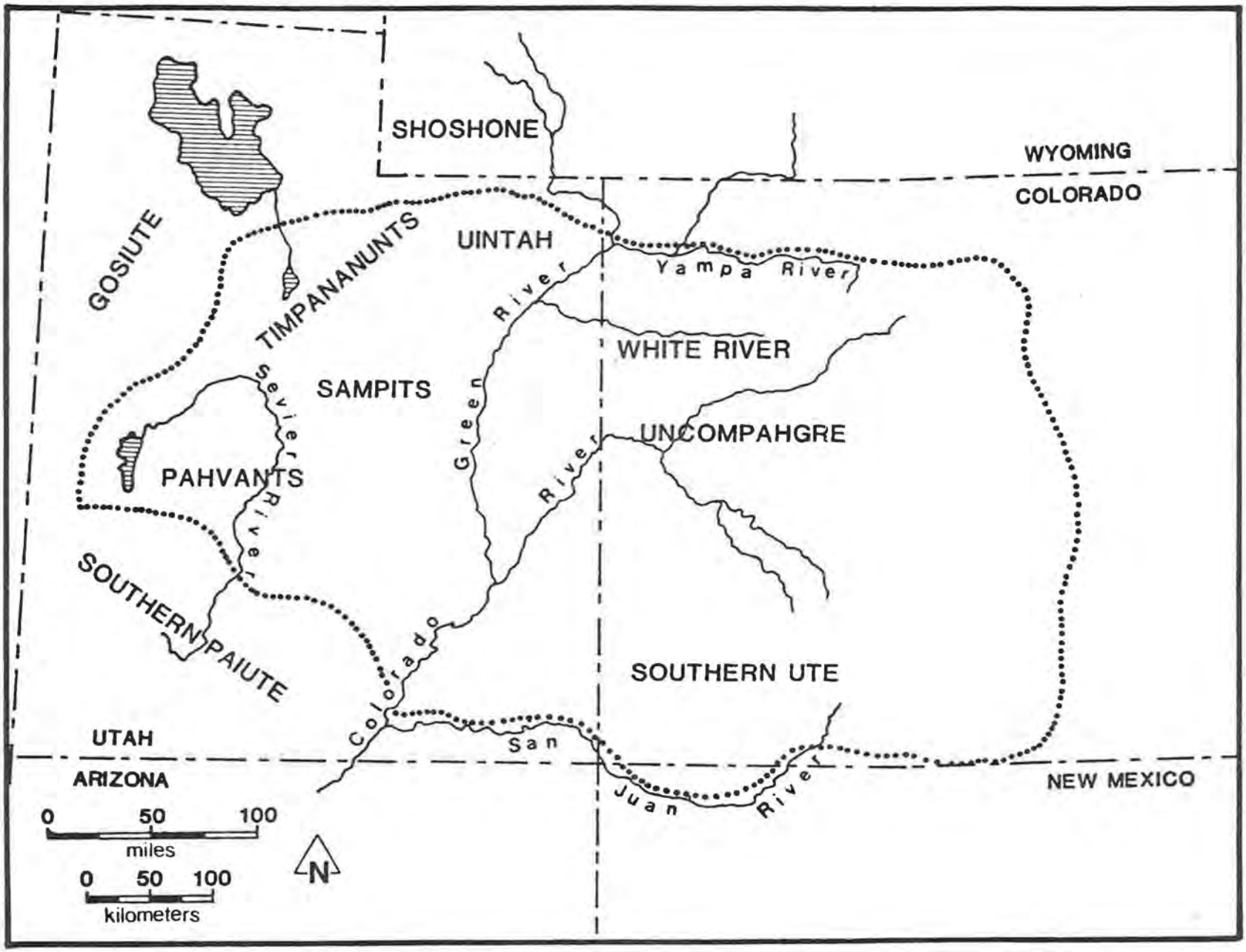

Figure 1. Distribution of the pre-reservation era Utes and neighboring groups (adopted from Smith [1974] and Stewart [1971]).

interest or inclination to compile, synthesize, and analyze these data, nor have there been wide-ranging systematic attempts on the part of investigators to collect field data on Ute remains.

Everyone in Colorado archaeology is familiar with Bill Buckles' important dissertation which deals, in part, with Ute archaeology in the Uncompahgre Plateau area of west-central Colorado and many, for some strange reason, seem to consider this document as the final (maybe "only") word on Ute archaeology in Colorado. I think Bill would be the first one to agree that given the entirety of the former Ute domain, it is impractical to expect such results from such a geographically-focused study. This is akin to trying to understand the Anasazi by studying a single drainage within the expanse of the Four Corners region.

As a consequence, it seems that the root of our problem lies in the absence of synthetic or holistic approach to the various data related to the subject of Ute archaeology in Colorado. In order to initiate a tentative step in this direction I decided to organize a symposium at the 1988 annual meeting of the Colorado Council of Professional Archaeologists which would be oriented toward bringing out some of these data for review within a specific set of topics. These topics were loosely organized into three categories: 1) analyses of specific Ute cultural traits, such as material culture or cultural patterns; 2) distributional studies of Ute physical manifestations; and 3) examples of Ute archaeological sites which have been investigated in recent years. Instead of asking for contributed papers, individuals were contacted to amass and synthesize data for given topics within these topical categories. As with any symposium, a certain amount of fluidity transpired as papers promised were not delivered for one reason or another, meaning that in the end some important topics received little or no attention. This situation is most noticeable in the third category, that of site reports, for there are some fine examples of both surface and excavation results from Ute sites, found primarily in limited distribution reports.

Nonetheless, the symposium, held on the Mesa College campus in Grand Junction was well attended and, judging from comments heard afterwards, well received. Solicited contributions were supported by some volunteer contributions, those of David Hill and Allen Kane, Steve Baker, and Reed Terry and Cynthia Gilchrist. Cogent discussions of the presentations were presented by Omer Stewart and Bill Buckles. Bill's comments are part of the following report; however, Omer did not provide written text of his thoughts and an attempt to tape his presentation for later transcription was derailed by a mechanical problem with part of the taping sequence. In recognition of Omer's past and ongoing accomplishments, this volume is respectfully dedicated to him.

In spite of the apparent promising results of the symposium, I consider it to have been only moderately successful in achieving its goals. This is not due to the fault of any of the presenters for their participation and efforts are greatly appreciated. Rather, it is due to my belief that there is still a lot of pertinent information out there, much of which was only briefly touched upon or not at all during the session. I am sure that each of the authors would agree that his/her topic could be significantly expanded, given sufficient time and resources, and there are some notable topics of inquiry which were ignored, such as subsistence, varieties of

artifacts, movement and settlement patterns, relationships between the Utes and their environmental settings, and others. Put quite simply, there is much to be done with the still elusive but developing subject of Ute archaeology. We have taken, with this symposium, a long overdue first step, but it will be awhile before Ute archaeology will be able to take its rightful place alongside the other better known aspects of our state's prehistoric record.

EDITOR'S COMMENT: All papers appear basically as received from the symposium participants. In the interest of fairly rapid publication and dissemination a policy of "loose" editing was employed. That is, the papers were edited for consistency in format and references, typed in a common style, and illustrations finalized and inserted. Each of the authors is thanked for providing clean, readable copies of their texts. Word processing efforts were provided by Kelle Mitchell and Dorothy Floyd at Nickens and Associates' office.

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CULTURALLY PEELED TREES AND UTE INDIANS IN COLORADO

by

Marilyn A. Martorano

INTRODUCTION

In archaeological contexts, perishable cultural materials affiliated with historic Utes are not common. However, one resource type that is often overlooked is the peeled ponderosa pine tree which is a living artifact reflecting cultural utilization of bark (Figure 1). Tree bark and bark substances have been utilized aboriginally for a variety of functions. The four primary uses were as a food source (both as an emergency or starvation food and as a delicacy or sweet food), a raw material for constructing various objects, a building material, and for medicinal purposes.

In order to examine cultural utilization of ponderosa pine tree bark, the biological structure of the bark must be understood. On the outside of the tree is the actual bark. A specialized tissue found only on woody plants, bark serves mainly to stop water loss from the layers that lie beneath it. Bark also shields the tree from casual injury and from temporary extremes of heat or cold (Edlin 1976:15). Just inside of the bark is a layer of cells called the phloem, which transports the food reserves manufactured by the tree. Inside of the phloem is a layer, one-cell thick, called the cambium, which is responsible for producing the phloem to the outside and the xylem (or wood) to the inside. In the spring, when the tree begins an active growth period, the cambium starts to divide to produce the new cells for the phloem and sylem. At this time, there is a zone of immature cells (which have not yet differentiated) between the phloem and xylem. Because these cells are immature and soft-walled, the bond between the wood and bark is weak, making removal of the bark easiest at this time of the year. When the outer bark is removed, the new phloem cells come off with the bark. It is really the phloem, which is rich in proteins and carbohydrates, that is the nutritious part of the bark (Dimbleby 1967:30, 137). This phloem layer, which can be separated from the outer bark, is probably what is referred to in most ethnographical references as inner bark, or cambium, and has been used as a food source.

A nutritional evaluation of 454 grams (approximately one pound) of ponderosa pine inner bark, retrieved during test-peeling of a live tree in the Rio Grande National Forest in May of 1981, supports the hypothesis that inner bark is a potentially nutritious substance (Martorano 1982). Results of the total proximate analysis show the following amounts in 454 grams of ponderosa pine inner bark: 595 calories, 4.5 g protein, 138.5 g carbohydrates, 2.7 g fat, 55.8 g crude fiber, 8.2 g ash, and 244 g moisture. Results of the spectroscopy of this sample include 2740 mg calcium, 112 mg phosphorous, 173 mg magnesium, 4.5 mg iron, 9 mg zinc, 34 mg sodium, .5 mg copper, 6.4 mg manganese, 15 mg aluminum, 3.5 mg barium, 8 mg strontium, 2 mg boron, and .1 mg chromium. Especially significant are the amounts of carbohydrates, and elements such as calcium (342% of the Recommended Daily Dietary Allowance, RDA), magnesium (58% of the RDA), iron (45% of the RDA), and zinc (59% of the RDA).

Figure 1. A peeled ponderosa pine tree in the Rio Grande National Forest, south of Gunnison, Colorado. Note the horizontal edge (original cut) at the lower end of the scar and how the scar tapers in near the top, indicating the bark was removed with an upward motion. Scale is 15 cm long.

BARK UTILIZATION

The inner bark of most varieties of pine has been used by Native Americans for food in cases of impending starvation. The bark was often prepared for eating by thoroughly pounding it (Sweet 1962:10). Clarke (1977:76) reported that the inner layer of pine bark was so frequently employed as an emergency food that early settlers found large stands of these trees stripped of their bark. Hedrick (1972:436-437) also relates that in 1868 during times of scarcity, Indians ate the liber (the inner fibrous bark) of the lodgepole pine (Pinus contorta). It was reported that many of these trees had been stripped of their bark from approximately 30 cm above the ground to a height of 2 m or more along both sides of the trails in the passes of the Rocky Mountains.

Ethnographers have documented that a band of Wintu Indians, forced from their traditional village sites by early settlers in the 1850s, took refuge in part of what is now the Shasta-Trinity National Forest in California. These Indians were trapped in the forest during a severe winter and they ate the soft inner bark of pine trees to prevent starvation. The large elliptical scars found on many of the pine trees in that area are evidence of this event (The Denver Post 1978:7AA).

In addition to use as an emergency food, bark substances were employed as a regular food source by several North American Indian groups. Certain Algonquian tribes of Canada were even given the name Adirondack, meaning "they eat trees," because of their custom of eating bark (Hodge 1968:131).

In the Southwest, the Zuni prepared the inner bark of pine by scraping it off with a sharpened stone or animal horn, boiling it, pounding it into a mash, and shaping it into cakes. The cakes were cooked in a stone-lined baking pit, then smoked over a fire. Before being eaten, the cakes were boiled to soften them (Clarke 1977:76).

The inner bark of the lodgepole pine was mashed into a pulp and made into a cake by various Native American groups. These cakes were then put between skunk cabbage leaves, a fire of wet materials was made on top of them, and they were baked for at least an hour. The cakes of inner bark were then smoked and put away to be used on trips (Sweet 1962:10).

Other groups such as the Shoshone apparently also used bark substances as a source of food. While on their journey to the Pacific Ocean in 1805, Lewis and Clark were told by Sacajawea that the Shoshone peeled the bark from trees and ate the inner layer as food. "I mad(e) camp at 8 on this roade & particularly on this Creek the Indians have pealed a number of Pine for the under bark which they eate at certain Seasons of the year, I am told in the Spring they make use of this bark..." (Thwaites 1905:63).

Outer bark was utilized aboriginally as a building material, e.g., for roofs and walls of structures, and to construct objects such as trays, baskets, and cradleboards. Resin and pitch from the peeled areas of trees were also utilized as adhesives and as waterproofing agents for basketry and other objects.

Use of bark substances for medicinal purposes was also known among Native Americans. Inner bark and sap were utilized as a poultice or drink for many types of disorders such as tuberculosis, stomach troubles, cuts, infections, rheumatism, heart problems, gonorrhea, and colds (Turner 1973:197-198).

BARK PROCUREMENT

The most detailed description of inner bark utilization and procurement methods based on information from native informants is a paper by Thain White (1954) entitled "Scarred Trees in Western Montana." White's information was collected from Kutenai informants who remembered how the inner bark was harvested. According to his informants, the tree peeling process took place as follows: 1) a tree was selected for peeling; 2) bark from a vertical notch 15-20 cm long was removed from the tree and the inner bark was eaten; 3) if it was considered "good," an area was selected for removing a larger section of bark. According to information gathered by Carling Malouf (1980), at this point in the debarking process a horizontal cut was made through the outer bark with an ax; and 4) a sharpened branch or pole called a "debarking stick" was inserted under the cut and used to loosen and pry the outer bark from the tree with an upward motion (Figure 2). Malouf (ibid.) reported that the strips of outer bark were also sometimes stripped downward from the trunk as well as upward, resulting in one or more points at both ends of the scar. The inner bark was then removed from the outer bark slabs with a scraper. In the early 1900s, the Kutenai reportedly used a scraper shaped from a metal baking powder can (Figure 3). Prior to that, a scraper was made from a mountain sheep horn (White 1954:
5).

The scraping of the inner bark was completed in the vicinity of the stripped trees because the slabs of outer bark were too bulky and heavy to be taken back to the camp. Once removed from the outer bark, the inner bark strips were then prepared for storage or consumption. They could be cut into small strips and rolled into balls or tied into knots and packed in green leaves to prevent drying out. One of White's informants, William Gingros, noted that "not much would be wasted as it sure was good" (White 1954:7).

The peeling process was undertaken primarily by women and was usually done near a campsite. The trees were peeled in the spring, usually in May, when the sap in the tree was running and the bark was easiest to remove (White 1954). Inner bark utilization in this case was apparently a seasonal event and not an emergency measure.

IDENTIFICATION OF CULTURALLY PEELED PONDEROSA PINE TREES

Scars resulting from cultural peeling of trees for the purpose of bark utilization can be distinguished from other types of natural and cultural scars. Lightning scars are usually long and thin, often extend along the entire length of the tree, and sometimes spiral around the tree trunk. Fires can also cause scarring, but this type of scar usually begins at the base of the tree and is triangular in shape with the widest edge along the bottom. Fire scars are often found on the uphill side of trees on slopes (Swetnam 1984:179). Many of the culturally peeled trees exhibit evidence of burning because the lack of outer bark and the pitch on the scar surface make the

Figure 2. Utilizing a "debarking stick" to pry off strips of outer bark from a ponderosa pine tree. This tree was peeled in 1981 to replicate the peeling process.

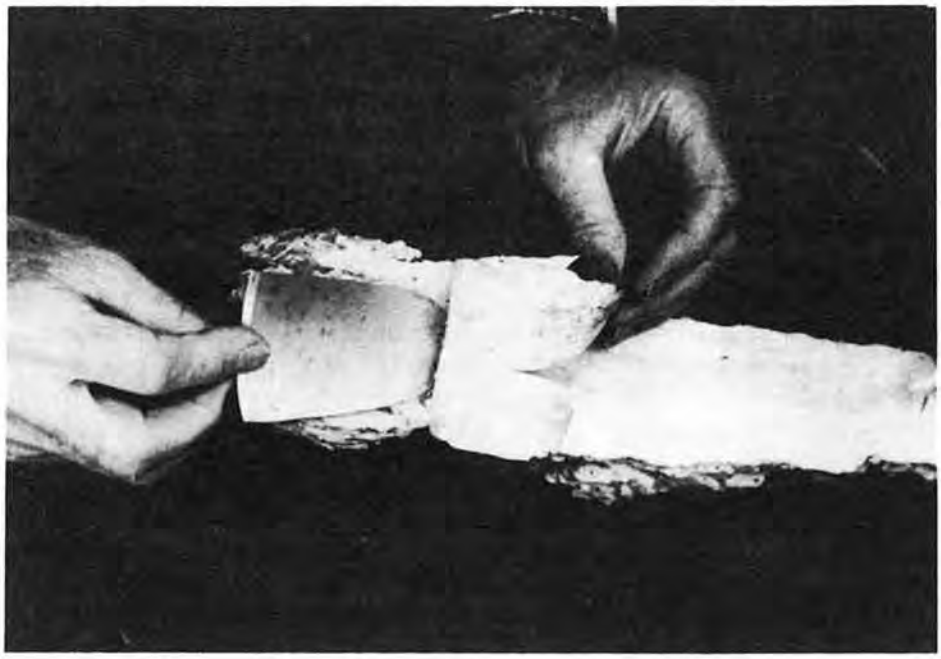

Figure 3. Removing the strips of inner bark from the outer bark with a scraper made from a baking powder can as described by Kutenai informants (White 1954). Photograph taken during the 1981 replication of bark peeling.

tree vulnerable to ground fires (Martorano 1981). Several species of animals, such as porcupine, bear, elk, and deer produce scars on trees. These scars are usually irregular in shape and patchy; and teeth, claw, or antler marks are often visible on the scar surface. Trail blazes are human-produced, but are usually small stripes and/or patches cut out with an ax. They often occur on two sides of a tree along a trail or road. A survey or witness tree is also culturally-produced, but it usually exhibits a rounded or rectangular-shaped scarred area with numbers, dates, or other information carved into it.

The scars of trees peeled for cultural use of bark substances vary in size and shape but have several distinguishing features. They are usually oval or rectangular in shape with one or more points at either end (Figure 4). Often, the lower scar edge is horizontal and the upper end may come to one or more points. This would confirm that an initial horizontal cut was made into the bark and the strips were then pulled off in an upward motion as stated by White (1954) and Malouf (1980). The bottom of the scar is usually above ground level and often begins at .3-.9 m high. The top of the scar can extend to over 3 m above the ground. Many of the scars exhibit cut lines which are visible across the lower end of the scar (Figure 5). These cuts are sometimes very even straight lines, approximately 7-10 cm in length, suggesting they are the result of ax cuts. Other cut marks are jagged which would indicate perhaps the cutting was done with a sharpened stone rather than a metal tool.

The width and length of the scars are quite variable (Figures 6 and 7). Of a sample of 84 culturally peeled trees exhibiting 101 scars (Martorano 1981), the scar width ranges from 1.3 cm to a scar that is 1.5 m in width and extends around the entire circumference of the tree except for a narrow strip. The length of these scars varies from 10 cm to one that is 2.8 m in length. Of this sample, the average-sized scar is 43 cm wide and 1.3 m long. Some of the small scars in this sample are theorized to have been tests produced to sample the inner bark to determine if it was edible. It is hypothesized that the width of the scar was determined by the person involved in the debarking process but, in most cases, the length of the scar depended on how the bark actually tore away from the tree trunk (Martorano 1981).

While some trees exhibit a single small scar, others exhibit two or more scars (Figure 8). Several explanations may account for the existence of multiple scars on a single tree. If several people were peeling one tree at the same time, the result could be one wide scar or perhaps two or more separate scars. If a tree was peeled once and then peeled again at a later time, the existence of the first scar probably affected the decision to peel the same tree again. Perhaps it was easier to begin peeling the bark adjacent to an existing scar or, if the bark substances were used as food, it is likely that an existing scar would indicate to the prospective debarker that the bark of that tree was edible.

It has been noted by the author that in many areas where culturally peeled ponderosa pine trees occur, other trees of the same species of similar size and age are found with no scars. As evidenced by the existence of probable test scars and trees with multiple scars, certain trees were apparently preferred for peeling over others. Perhaps some trees had too many

Figure 4. Tree C-60, near Cochetopa Pass road, Colorado. Scar is 1.2 m long, 25 cm wide and dates to 1868. Scale is 15 cm long.

Figure 5. Close-up of the probable ax cut marks at the lower end of the scar on peeled tree SD-64, Great Sand Dunes National Monument, Colorado. Scale is 15 cm long.

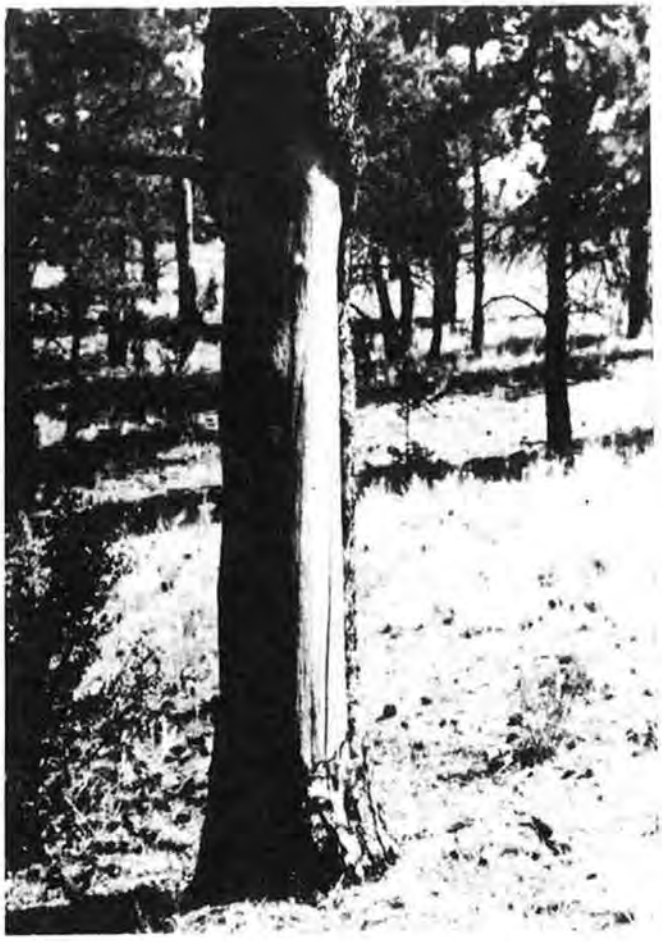

Figure 6. Tree C-53, near old Cochetopa Pass road, Colorado. Scar is 1.9 m long, 69 cm wide and dates to 1865. Scale is 15 cm long.

Figure 7. Tree SD-69, Great Sand Dunes National Monument, Colorado. The length of the scar is 1.8 m and the width is 89 cm. Scale is 15cm long.

branches projecting from their trunks, or trees had very thick outer bark that would have made it difficult to remove large slabs from the tree trunk.

One factor which may have affected the preference for one tree over another are the differing levels of monoterpenes, a major class of secondary compounds present in ponderosa pine and other conifers. A study of the cortical tissue of ponderosa pine trees used by tassel-eared squirrels as a food source (Farentinos et al. 1984) indicates that trees with lesser amounts of monoterpenes in these tissues were the preferred feeding trees. Apparently, the levels of monoterpenes can vary significantly between trees that are located only a few meters apart. Although the hypothesis has not been tested, it may be possible that the differing levels of monoterpenes affect the perceived taste of the inner bark and may have been a factor in human preferences of trees peeled for food. Perhaps the persons debarking the trees examined them for evidence of squirrel activity (defoliation and needle accumulation on the ground) and chose a particular tree based on these signs.

Of the 101 scars examined by Martorano (1981), 22% face between north and east, 27% between east and south, 23% between south and west, and 28% between west and north. Apparently, no specific location on the tree was preferred over another for peeling. Weather conditions or accessibility to large branchless areas of the tree trunk may have been the types of factors which influenced the actual portion of the tree chosen for peeling. It was noted that the upper points of many of the scars end where a large old branch projects from the trunk, but few exhibit branches in the middle of the scar surface. Obviously, if large areas of bark were to be removed from a tree, a location would have been chosen where the fewest branches existed.

UTE INDIANS AND CULTURALLY PEELED TREES

Evidence to tie these culturally peeled trees to historic Utes in Colorado is based on three sources: dendrochronology, historical accounts in books, government records and documents, and interviews with local informants.

Tree ring dating of the peeling event is possible by crossdating core samples removed from the scarred area and/or from the curled healing portion adjacent to the scar with a core from the healthy part of the same tree and with other nearby trees (Swetnam 1984). Dendrochronological of 40 culturally peeled trees in three parts of Colorado (Martorano 1981:107) indicates that the majority of the trees were peeled between 1815 and 1875. One scar dated to 1793 and a few dated to post-1890. The period from the early to late 1800s was a time of vast changes in many parts of Colorado. As more and more outsiders (miners, ranchers, and farmers) entered the State, the Utes, who were the primary inhabitants, were quickly pushed out of their traditional hunting and camping areas and food became scarce (Petersen 1977:12). It is postulated that these population pressures factored with environmental stresses may have stimulated most of the intensive utilization of bark by Utes in the mid to late 1800s.

At times, all groups of Utes ate bark substances. They were known to have eaten the sap from aspen trees as a delicacy and the Northern Utes also reportedly tied small strips of the inner bark of pine trees into bundles and

Figure 8. Tree SD-15, scar #1, Great Sand Dunes National Monument, Colorado. Scar is 1.2 m long, 47 cm wide and dates to 1826. An additional scar, 2 m long and 23 cm wide, also dating to 1826, is located on the opposite side of the tree. Scale is 15 cm long.

ate them with salt (Smith 1974:65-67). It is hypothesized that because bark was already known to the Utes as an edible resource, resorting to bark as an emergency food in times of starvation would have been a logical occurrence. One particular historical sighting is especially supportive of this theory. In 1853, 40 Ute families, living on the Culebra and Costilla Rivers in the San Luis Valley, were observed eating bark of pine and aspen because of the scarcity of game (San Luis Valley Historical Society, Inc. 1969:4; Schroeder 1965:65-66).

While starvation is indicated as the reason for inner bark utilization in some references, others simply mention that bark was harvested and utilized. In the San Juan National Forest History (Scott 1932:106), a miner named Lindley Remine stated that the inner bark from large sections of outer bark removed from yellow pine trees (ponderosa pine) was used by the Utes in thickening meat soups and in making a tea. The flavor was described as very sweet and palatable. According to Loyd McNeil, Mancos Ranger District, several non-Indian informants stated that the peeled trees at the Thompson Park Campground, San Juan National Forest, were stripped of the bark by Utes to bleed the pitch or sap for waterproofing baskets (York 1983:1).

Peggy Jacobson, Cultural Resources Coordinator of the Pagosa Ranger District, San Juan National Forest, stated that three or four years ago she interviewed a Southern Ute man, approximately 90 years old, about the peeled trees (Jacobson 1987). This informant stated that the Utes boiled the inner bark of pine in the spring and drank it as a tonic to "clean them out."

Another informant, Ed Gould, who grew up on the Dolores River south of Taylor Mesa, stated that in 1893 or 1894 his father and another man were coming down from the Mesa and saw an Indian "squaw" peeling the bark from a ponderosa pine tree. His father"s friend said the Indians used the inner bark to grind with their corn, making "pitch corn." Mr. Gould also said that these Indians (probably Utes) were camped on a flat area near the peeled tree (Gould 1987).

RESEARCH GOALS

Research questions relevant to culturally peeled trees include the following: 1) were the trees peeled as emergency measures or as part of a regular seasonal subsistence strategy; 2) did patterns of bark utilization change over time due to environmental and/or population stresses; 3) were certain trees selected for peeling because of differences in taste, smell or ease of bark removal; 4) can the tools utilized in the debarking process be identified by the cut lines or marks remaining on the scar; 5) can the distribution of culturally peeled trees be compared with tree ring dates to hypothesize seasonal movements and migrations of particular cultural groups such as Utes; and 6) are variations in scar morphology based on differences in intended uses of the bark.

In order to address these questions and provide baseline data, one of the major research goals in the study of culturally peeled trees is initial recording and documentation of existing trees. Only within the past 10 years have these trees been recorded as cultural resources, and many professionals are still not fully aware of their potential for providing historical data.

The estimated number of reported and/or recorded culturally peeled ponderosa pine trees in Colorado as of January 1988 is 325-350. This figure includes peeled trees in the Rio Grande, San Juan, Uncompahgre, Gunnison, Pike and San Isabel National Forests, Mesa Verde National Park, Great Sand Dunes National Monument and Florissant Fossil Beds National Monument, as well as other locations on Bureau of Land Management and private lands that are known to the author. The locations of peeled trees depicted on the Colorado map (Figure 9), include single trees, small groups of trees, e.g., 5-10 trees, and large concentrations such as the one at the Great Sand Dunes National Monument where there are 67 trees in one area.

Because the maximum lifespan of a ponderosa pine tree is 300-600 years (Fowells 1965:414), many of the remaining culturally peeled ponderosa pine trees may soon die of natural causes. Undoubtedly, numerous trees have already been cut down during logging activities, and others are being damaged by lightning, ground fires, insects and disease. To obtain a substantive data base, it is imperative that all of the existing culturally peeled trees be identified and recorded as soon as possible. Ponderosa pine trees grow at elevations of approximately 1676-3048 m above sea level in Colorado (Mutel and Emerick 1984:17) with the best developed stands on benches and plateaus with west and south aspects (Fowells 1965:417-419). Due to the widespread ecological habitat of ponderosa pine trees in Colorado, culturally peeled trees are likely to exist in many previously unidentified locations.

To record these culturally peeled trees, it is recommended that they be described in detail and carefully photographed in addition to the usual site recording procedures. Close-up photographs detailing scar morphology are necessary to interpret the specific debarking methods utilized to produce each scar. Data recorded for each peeled tree should include scar size (length and width), height of the scar base above the ground, direction the scar faces, description of ax or other cut marks on the scar, and condition of the tree and scar such as the presence of fire or insect damage. This information is especially important to determine the potential of each tree for dendrochronological analysis. If the tree is dead or has major structural damage, increment borings may not be possible, but obtaining a cross-section or wedge-section may still allow dating of the peeling event.

Dendrochronological analysis of the culturally peeled trees is probably the most valuable aspect of resource documentation. Careful tree ring sampling and analysis can determine the year the tree was peeled, the age of the tree today and the age of the tree when scarred. With cross-sections, it may be possible to determine whether trees were peeled during the dormant season - fall, winter and early spring - or during the growing season - late spring and summer (Swetnam 1984). Dendrochronological coring and analysis of these culturally peeled trees can be difficult because of the large size of the trees (some have circumferences of up to 3.6 m). Tension and compression wood, rot, insect, fire, and other damage can all cause problems in core sample removal and interpretation. Thomas Swetnam (1984) has offered suggestions for improving the core removal process that may help obtain better samples for dendrochronological analysis, but more sampling and research are still needed to perfect these methods.

Although ponderosa pine trees are the only species being identified as culturally peeled in Colorado, it is possible that other species, such as

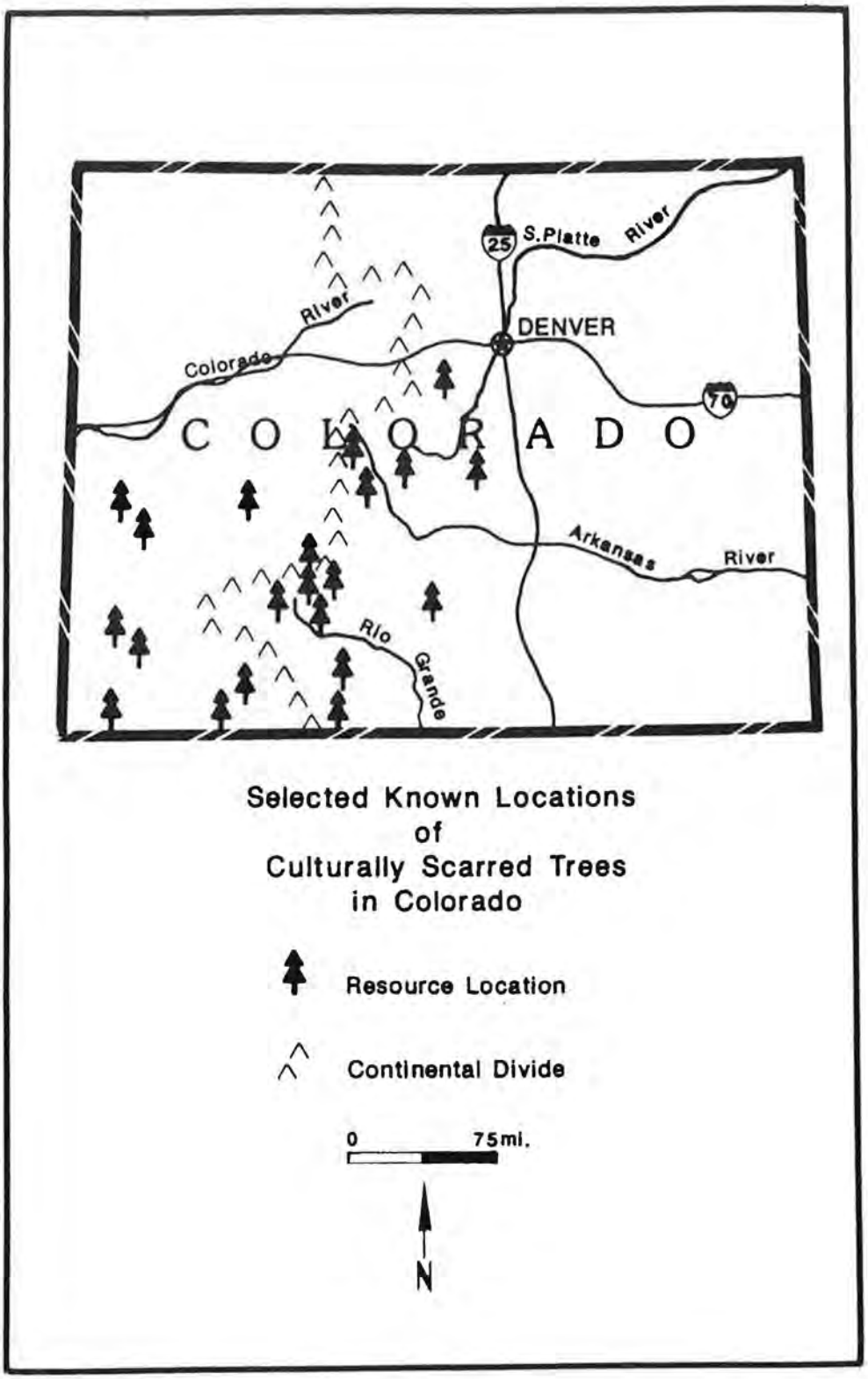

Figure 9. Selected known locations of culturally scarred trees in Colorado.

cottonwood, Douglas fir, and lodgepole pine, were also peeled. Thomas E. Churchill (1979) recorded 288 culturally scarred ponderosa, Douglas fir and lodgepole pine trees in the Wallowa-Whiteman National Forest in eastern Oregon, and Gillett Griswold and Dave Larom (1954) reported over 80 culturally peeled cottonwood trees during a survey of the Hell Gate Canyon Area in western Montana. Cottonwood, Douglas fir and lodgepole pine are all located in Colorado and should be considered when examining an area for possible culturally peeled trees.

Another research concern is the minimal number of known historical references to bark utilization. It is hypothesized that additional references specific to Ute bark peeling are located in old Government records and other historical documents, but may have been overlooked in past archival searches. Additional information may also be available from local informants concerning specific groups of peeled trees. Oral histories may help to identify new locations of culturally peeled trees, groups responsible for the scarring, reasons for peeling, and approximate dates of bark utilization. Also, examination of paleoenvironmental data may help determine if climatic conditions affected bark utilization.

Other specific research goals related to culturally peeled trees include identification of bark substances, especially inner bark, in archaeological contexts. For example, some unidentified quids, which are small, macerated bundles of vegetal material (Reed 1978:1), may actually be remains of inner bark. Evidence of bark utilization may also be available from fiber analysis of artifacts such as manos and metates. Pine pollinates in the spring and, if bark was being exploited at that time, pollen may also have been deposited on the groundstone tools (Scott 1985:182).

SUMMARY

Based on existing dendrochronological data, written historic evidence (e.g., Schroeder 1965 and Petersen 1977) and oral history accounts, it appears likely that Utes were responsible for the cultural peeling of ponderosa pine trees in Colorado. The exact reasons for each instance of bark peeling are not known and it is likely that bark utilization may have varied geographically and temporally. Some evidence suggests that starvation was the major factor that influenced bark utilization while other information indicates that bark substances were utilized medicinally or as part of normal subsistence. Further research on these culturally scarred trees will allow a more accurate interpretation of peeled trees as cultural resources and will increase our knowledge of the role of bark utilization in Native American subsistence, especially during the post-contact to reservation period. An expanded data base on culturally peeled trees will also aid in understanding the overall interrelationships of subsistence, migration, population fluctuations, environmental stress, and cultural adaptation.

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ARCHAEOLOGICAL EVIDENCE FOR EASTERN UTE MORTUARY PRACTICE

by

Paul R. Nickens

INTRODUCTION

Mortuary practices for the pre-reservation (i.e., before 1880) Eastern Ute bands have not been studied in any great detail. In the main, information regarding Ute mortuary practices in general is somewhat limited, being restricted to a few brief late-nineteenth century accounts and some similarly short ethnographic accounts generated in the first few decades of the present century. Archaeological evidence for Ute burials and mortuary practice is also sorely lacking, although some detailed studies of such remains have appeared within the past five years. A number of Ute burials have been sporadically and briefly reported over the past fifty years or so; however, such reports are invariably characterized by either incomplete details or inadequate analyses of the data for burial location and context, funerary offerings, and biological characteristics.

As used in this paper, the term "Eastern Ute" refers to a geographic subdivision of the area once occupied by the various Ute bands which lies east of the Green and Colorado Rivers in Utah (see Stewart 1971:Fig.1) and extends eastward to include the Colorado Rockies. Thus, the study area includes most of central and western Colorado along with part of eastern Utah. The distribution of Ute bands within this region varied considerably in the protohistoric era and especially the historic period due to high mobility and reservation boundary changes between the 1850s and 1880. In general terms, however, the study area was occupied during the historic period by the following bands: Muache and Capote (south-central Colorado); Weeminuche (southwest Colorado and southeast Utah); Uncompahgre (west-central Colorado); White River (northwest Colorado); and Uintah (northeast Utah).

ARCHAEOLOGICAL ANALYSES OF MORTUARY PRACTICE

Archaeological studies and interpretations of mortuary practice have greatly benefited in recent years from several thoughtful discussions of such data and their implications for topics such as cultural change, a cultural variability, and the study of specific burial customs (Alekshin 1983, Bartel 1982, Brown 1971, Chapman et al. 1981, O'Shea 1984, and Tainter 1978). The availability of such exhaustive studies serves as a background to the present study and also makes it unnecessary to repeat herein the various assumptions and data orientations that combine to form a theoretical basis for archaeological study of mortuary practices.

The recent volume on archaeological mortuary variability by O'Shea (1984) provides an excellent recapitulation of the conceptual framework that underlies the study of death-related phenomena within the prehistoric record. In summarizing earlier studies, O'Shea (1984:21) observes that past research has demonstrated several regularities which link aspects of a given living society to its procedure(s) for disposal of the dead. The most important of these are as follows:

1. Mortuary differentiation is patterned, and its elements are integrated with other aspects of the sociocultural system.

2. The mortuary differentiation accorded to an individual is consistent with his social position in the living society.

3. The complexity of the system of mortuary differentiation will increase with the complexity of the society at large.

O'Shea (1984:33-39) further formulates four principles to guide mortuary analysis which serve as useful constructs for interpreting the Ute burial data. These principles include:

1. All societies employ some regular procedure or set of procedures for the disposal of the dead.

2. A mortuary population will exhibit demographic and physiological characteristics reflecting those of the living population.

3. Within a mortuary occurrence, each interment represents the systematic application of a series of prescriptive and proscriptive directives relevant to that individual.

4. Elements combined within a burial context will have been contemporary in the living society at the time of interment.

In addition to noting that each of the above regularities and principles has a direct relevance to the study of Ute mortuary practice, it is also important to point out various data categories of importance and some of the limitations which can restrict or impede the overall analysis. In general terms, categories of archaeologically detectable data for mortuary practices include: 1) biological (e.g., demographic, genetic, diet, and pathology); 2) preparation and treatment of the corpse; 3) burial facility; 4) funerary offerings; 5) location; and, 6) in some cases, environmental.

While the potential for archaeologically visible data is significant, it must also be remembered that limitations in detection and recognition of such data occur since the archaeologist can only deal with a part of the overall sociocultural context of death-related behavior and, moreover, the integrity of the remaining physical evidence is usually variable owing to the vagaries of the formation of the archaeological record. In the first case, the archaeologist most commonly deals only with data related to a small segment of the behavior patterns associated with a given society's mortuary practices, usually being restricted to evidence related to the actual corpse disposal. Hidden in the record is the unobservable range of complex sociocultural behaviors on the part of the living members of the society occasioned by a person's death, as well as the more general group concepts such as death fear and fear of the dead. In some instances, including the present analysis, historical documentation may be of great benefit in associating unobservable social behaviors with the observable evidence found in the archaeological record when cultural continuity can be established.

The second limitation, that of the formation processes, is also of consequence to the analysis since it is important to be able to ascertain as precisely as possible what postdepositional factors may have affected the physical remains and their context. This topic has also been recently examined by Schiffer (1987) who observes that many factors came into play, including cultural deposition behavior and environmental formation processes, in determining the eventual archaeologically visible data.

UTE MORTUARY PRACTICE

By combining the concepts noted in the preceding section with the available ethnographic data for Ute mortuary practice, specifically those available for the nineteenth century Eastern Ute, it is possible to outline a generalized model for the range of behaviors accompanying Ute mortuary practice. In doing so, the model can be used to identify which of those particular behavior patterns should be observable in the archaeological record. Subsequently, it will then be possible to test the available archaeological data against the model.

Aside from the data derived from burials themselves, information on Ute mortuary practice can be gleaned from several sources, including early historical accounts of general death customs (e.g., Yarrow 1881) or of the deaths of prominent Utes, such as Ouray (Whittier 1924, Wiegel 1928, 1930), or by ethnographic descriptions which sought information on pre-reservation era burial traits. For the Eastern Ute, the latter category of sources includes the work of Reagan (1931:411-413), Smith (1974:150-152), and Stewart (1942:312-314).

The written and ethnographic information for both the Eastern and Western Ute has been presented in detail elsewhere by the author (Nickens 1984a), and, for the sake of brevity, need not be repeated at this point. Generally speaking, there is a good degree of agreement between the written accounts for the Eastern Ute in overall behavior patterning; however, some variation is evident with regard to minor behaviors related to certain traits or between individual informants. While a detailed analysis would require intensive comparison of all accounts, our current interest is in identifying the primary components of the Ute mortuary behavior patterns. Therefore, only one of the early written descriptions of Ute mortuary practices is quoted below to serve as an overview of such behavior. This account, published in 1881, comes from the pen of a physician at the Los Pinos Agency in the 1870s and is not only the earliest but also one of the most complete descriptions available for the Eastern Ute (Yarrow 1881:127-128).

> As soon as death takes place the event is at once announced by the medicine-man, and without loss of time the squaws are busily engaged in preparing the corpse for the grave. This does not take long; whatever articles of clothing may have been on the body at the time of death are not removed. The dead man's limbs are straightened out, his weapons of war laid by his side, and his robes and blankets wrapped securely and snugly around him, and now everything is ready for the burial. It is the custom to secure, if possible, for the purpose of wrapping up

the corpse, the robes and blankets in which the Indian died. At the same time that the body is being fitted for interment, the squaws having immediate care of it, together with all the other squaws in the neighborhood, keep up a continued chant or dirge, the dismal cadence of which may, when the congregation of women is large, be heard for quite a long distance. The death song is not a mere inarticulate howl of distress; it embraces expressions eulogistic in character, but whether or not any particular formula of words is adopted on such occasion is a question which I am unable, with the materials at my disposal, to determine with any degree of certainty.

The next duty falling to the lot of the squaws is that of placing the dead man on a horse and conducting the remains to the spot chosen for burial. This is in the cleft of a rock and, so far as can be ascertained, it has always been customary among the Utes to select sepulchers of this character. From descriptions given by Mr. Harris, who has several times been fortunate enough to discover remains, it would appear that no superstitious ideas are held by this tribe with respect to the position in which the body is placed, the space accommodation of the sepulcher probably regulating the matter; and from the same source I learn that it is not usual to find the remains of more than one Indian deposited in one grave. After the body has been received into the cleft, it is well covered with pieces of rock, to protect it against the ravages of wild animals. The chant ceases, the squaws disperse, and the burial ceremonies are at an end. The men during all this time have not been idle, though they have in no way participated in the preparation of the body, have not joined the squaws in chanting praises to the memory of the dead, and have not even as mere spectators attended the funeral, yet they have had their duties to perform. In conformity with a long-established custom, all the personal belongings of the deceased is immediately destroyed. His horses and his cattle are shot, and his wigwam furniture burned. The performance of this part of the ceremonies is assigned to the men, a duty quite in accord with their taste and inclinations. Occasionally the destruction of horses and other property is of considerable magnitude, but usually this is not the case, owing to a practice existing with them of distributing their property among their children when they are of a very tender age, retaining to themselves only what is necessary to meet every-day requirements.

The widow "goes into mourning" by smearing her face with a substance composed of pitch and charcoal. The application is made but once, and is allowed to remain on until it wears off. This is the only mourning observance of which I have any knowledge.

> The ceremonies observed on the death of a female are the same as those in the case of a male, except that no destruction of property takes place in burial of women and of course no weapons are deposited with the corpse. Should a youth die while under the superintendence of white men, the Indians will not as a rule have anything to do with the interment of the body. In a case of the kind which occurred at this agency some time ago, the squaws prepared the body in the usual manner; the men of the tribe selected a spot for the burial, and the employees at the agency, after digging a grave and depositing the corpse therein, filled it up according to the fashion of civilized people, and then at the request of the Indians rolled large fragments of rocks on top. Great anxiety was exhibited by the Indians to have the employees perform the service as expeditiously as possible.

Evident in this account, and supported by other written descriptions, is a sequence of patterned behaviors associated with Ute mortuary practice. Based on these sources, we see the following beliefs, actions, or events as comprising the major elements of this behavior (cf. Figure 1).

1. Concept of death fear and fear of the dead. Central to the understanding of Ute mortuary practice is the basic Ute belief in death as a natural part of the life cycle. While present, fear of death does not appear to have been as important as fear of the dead or ghosts.

2. Death. At the time of death, an announcement was made to the village at which time funeral preparations were immediately undertaken. Preparation of the body, including wailing or chanting, involved dressing the corpse and sometimes washing of the hair and painting of the face. Once dressed, the body was wrapped in a hide or blanket and secured with cordage or rope.

3. Funeral Procession. Conveyance of the corpse to the burial location was either by hand, on a blanket, or probably most commonly on horseback. This stage of the sequence was also accompanied by wailing. There is no evidence for exactly how the burial spot was selected. It is probable that the nearest suitable location would be used and there is historical documentation that some locations were used as burial places on more than one occasion.

4. Ceremony. Ceremonial aspects of the mortuary sequence included several behaviors, some of which are for the first time in the overall sequence archaeologically visible. The first of these behaviors, the social ones, are, however, not detectable in the physical remains. Historical and ethnographic accounts indicate that actions such as speeches, stepping over the corpse by relatives, and continued wailing accompanied the funeral.

Corpse disposal and related activities formed the major part of the funeral activity. As noted in the Los Pinos account, rock crevices were the preferred location for interment; this is verified in other historic and ethnographic sources. There were apparently other lesser employed variations, including pits in alcoves, open pits, cremation, and even leaving the

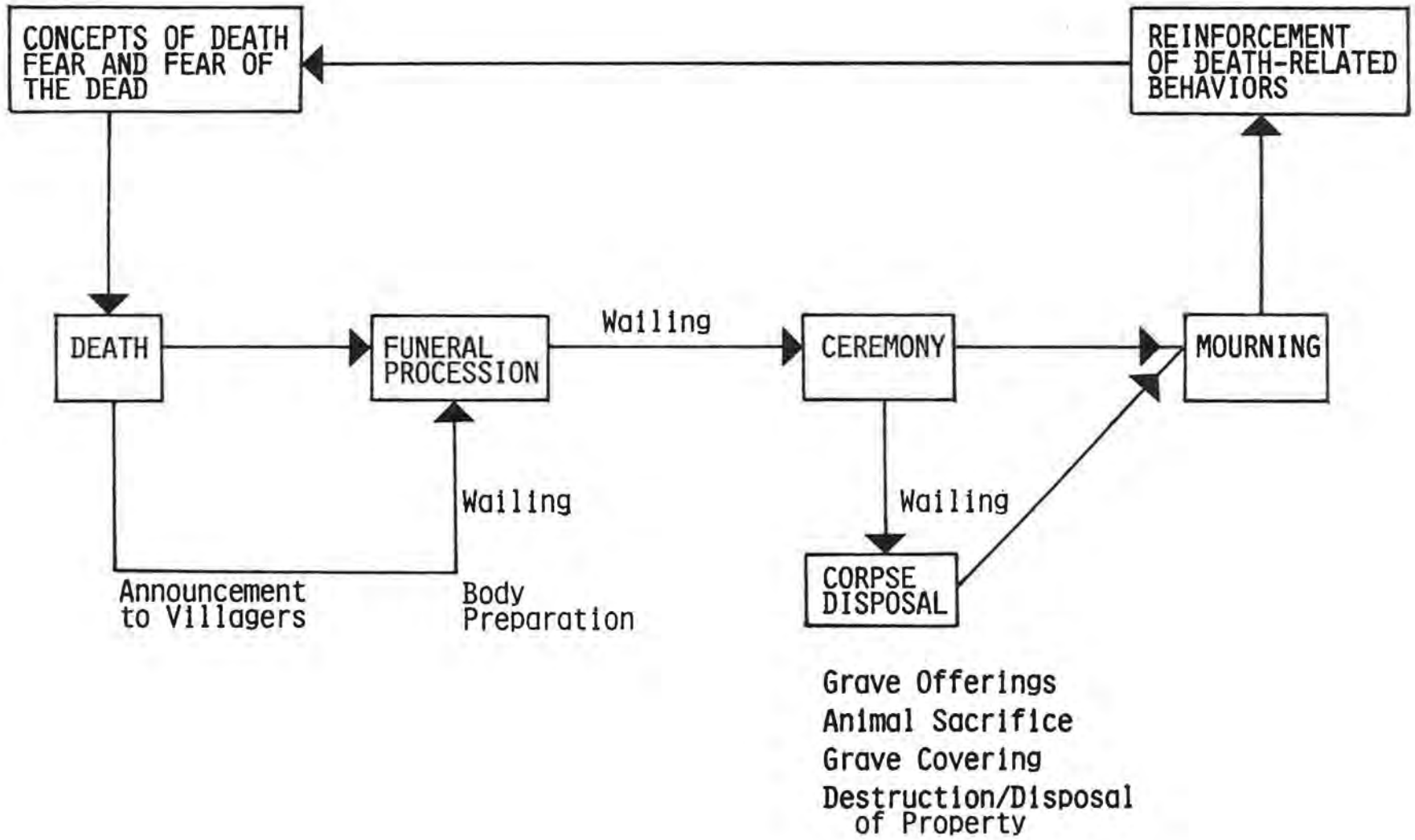

Figure 1. Generalized model of the behavioral aspects of Ute mortuary practice.

corpse exposed on the surface. The corpse disposal activity included other important actions including grave offerings, destruction of property, animal sacrifice, and covering of the corpse. Each of these activities is briefly outlined as follows.

Grave Offerings. The placement of certain items with the corpse has not only important implications for the extant sociocultural context but also for the subsequent archaeological record. Funerary accompaniments were those of a personal nature and included those items thought necessary for the afterlife, such as weapons, ornaments, and utilitarian implements. Food and water were reportedly placed in the grave as well. Of consequence to the archaeological picture, the grave goods reveal individual ownership, status, sex-related material culture, and serve as an avenue for determining a fairly accurate date for the interment. Just as importantly, the material culture included in the grave offers the opportunity to learn about non-death related cultural patterns such as material culture, trade, prevalence of aboriginal and EuroAmerican-derived items, and culture change.

Destruction of Property. Just as the grave offerings increase the potential for the archaeological record to contribute to an understanding of Ute culture, the destruction of property accompanying the funeral activities served to diminish the available evidence. Destruction of property appears to have varied between wholesale destruction of the deceased's living structure and personal property by burning and simply breaking the items and scattering them about the gravesite. In some instances other items were merely left on the ground surface or were hung in nearby trees. The effect of this custom on the archaeological record is perhaps best summarized by Albert Reagan (1931:412) who observed that the "destroying of the personal effects of the deceased...[results in] a poor field for the archaeologist; for everything he possessed, with the exception of his scanty pottery and a few milling stones, was perishable and was either destroyed by fire or by mold in the grave."

Animal Sacrifice. The sacrifice of animals at the gravesite, in this case domesticated animals, was a widespread trait throughout much of aboriginal western America (Jorgensen 1980:554) and the Plains (Ewers 1955:284-287). Historical accounts point to the horse as being the most common sacrificial victim, but the literature also indicates dogs and cattle might also have met a similar fate. The accounts vary greatly with regard to the number of horses killed. The most common occurrence appears to have been one animal killed, the deceased's favorite, with others owned by the dead person being distributed amongst the relatives or others in the village. If historical accounts are correct, sacrificing of multiple animals was associated with prominent leaders, whose power in part was based on wealth as determined by ownership of horses. An important component of animal sacrifice was the placement of horse gear (saddles, bridles, and blankets) either in the grave or on the ground surface.

Covering of the Corpse. Protection of the interment from animals was effected by covering it with rocks or other materials. A rock covering appears to have been the most common approach and is mentioned in a majority of the written accounts.

5. Mourning. Mourning of the death by relatives and other villagers included abandonment of the village location where the death occurred.

Relatives would crop their hair and sometimes place a spot of pitch on the forehead to keep the ghost away. The manes and tails of surviving horses would also be cut. Brief periods of abstinences were observed from such things as eating meat, dancing, washing, and gambling. According to Ute informants, such abstinences usually lasted four days. Abstinence from remarriage most commonly lasted for a year. Name taboos were also employed by some bands.

As indicated by the preceding discussion and as shown in Figure 1, archaeological visibility of Ute mortuary practice is primarily limited to physical evidence which remains from the corpse disposal activity. Some information related to body preparation might also be expected to survive in the grave. The remainder of the patterning for the associated socio-cultural behavior must come from the written record. The potential for archaeological visibility of Ute burial specimens would seem to be enhanced by the type of burial place and covering, assuming that the crevice was one which was protected from the elements. On the other hand, burial away from the village in isolated and relatively hidden locales would dictate that fortuitous discovery would be more prevalent than by designed archaeological identification.

THE ARCHAEOLOGICAL EVIDENCE

In an earlier summary of known Ute burials, the author noted the existence of some eighteen specimens, covering both the Eastern and Western Ute territories (Nickens 1984a). Further review and additional discoveries have resulted in an expansion of the number of Eastern Ute burials from twelve to twenty, which form the data base for this analysis. At this point, it can still be said that the information on Ute mortuary practice accruing from actual burial data is somewhat lacking, this in spite of the suspected time depth and spatial distribution of former Ute occupation.

Some additional burial data may be housed at the Smithsonian Institution, although acquisition of information on these specimens has not been successful to date. In his listing of burial locations in the United States, El-Najjar (1977:510) notes the presence of forty-three Ute burials at the that repository. These are probably the same ones briefly reported by Hrdlicka (1927) and are thought to be mostly Western Ute or general Shoshonean, which were collected by exploring expeditions in the latter half of the nineteenth century. In fact, many of these burials may be represented only by their crania.

Brief mention should also be made of the existence of some early physical anthropological data for the Ute which could be of comparative use for analyzing archaeological remains. Boas (1899) reports anthropometric measurements for 294 Ute and other Shoshonean individuals which were collected in 1891 and 1892. Hrdlicka (1908, 1909) also provides some physiological data for several tribes including the Ute, as well as other medical and pathological information. Hrdlicka's data collection was completed between 1898 and 1905. In that both Boas' and Hrdlicka's data were amassed fairly soon after the final reservation placement of the Ute, this information should have potential relevance for pre-reservation studies of Ute osteological remains.

Eastern Ute Burials

A total of twenty possible burials has been reported to some degree for the area encompassed by the Eastern Ute bands. Sixteen of the burials are considered to be definitely Ute, based on location, burial type, age, and funerary offerings. The remaining four are thought to be "possible Ute" burials because of location and burial context. In each instance, the questionable cultural affiliation is attributed to a lack of diagnostic grave goods and an unknown interment date. Unfortunately, certain contextual information which could fall into the known range of Ute burial traits has been demonstrated to have a considerable time depth in western Colorado. For example, Hand and Gooding (1980) describe a crevice burial near Dotsero which dates, both by artifacts and radiocarbon determination, to the Late Archaic era (ca. 3000 B.P.). Similarly, Scott and Nickens (1984) report on a burial which had been placed in a pit within an alcove and covered with rocks. This burial, located in western Montrose County, was dated by the radiocarbon method to about 1520 B.P. Without the radiocarbon determinations, both of these burials could easily be suspected of being Ute in origin.

All of the Eastern Ute burials which have been reported in the literature or are known from other sources are briefly summarized below. The number given to each burial corresponds to the general location as shown in Figure 2. Table 1 provides additional information for each burial and Table 2 lists associated grave goods.

1. La Veta Burial. This burial was recovered in 1932 by Renaud (1933:41-44, 1941:18-21), from a pass, once crossed by a Ute trail, south of the town of La Veta. The burial had been made in a broad crevice of a large boulder and covered with small rocks and contained the remains of a middle-aged male. Non-osseous items collected included many glass beads, a flint-lock gun (date 1848), three metal arrowpoints, a saddle buckle, five saddle rings, one piece of copper, a spoon and a stone pipe. The skeleton is currently in the collections at the University of Denver (Turner 1960:14).

2. Monte Vista Burial. This burial, located near the southwest edge of the town of Monte Vista, was excavated in 1982 under the direction of then Colorado State Archaeologist Emerson Pearson. The interment was that of a female, who was in her late teens at death. The corpse had been placed beneath a crevice formed by a large slab of rock which had previously spalled away from a cliff face, with the body extended and lying on its side. The only artifacts recovered were numerous beads, tentatively dated to the latter part of the nineteenth century, and a bent iron ornament in the form of an exaggerated question mark. The ornament was inferred to have been a pendant for a bead necklace.

The burial had previously been disturbed by the landowner and it is not known if other artifacts were once present. Upon completion of the excavation, the recovered artifacts were left with the landowner and the osseous remains went to the Colorado Historical Society.

3. Ouray Burial. The death and subsequent burial of Ouray, the well-known Uncompahgre Ute leader, at Ignacio on August 24, 1880 were treated in the traditional manner. Ouray died while visiting the Southern Ute Agency and was secretly buried under a rock overhang in an arroyo near the agency

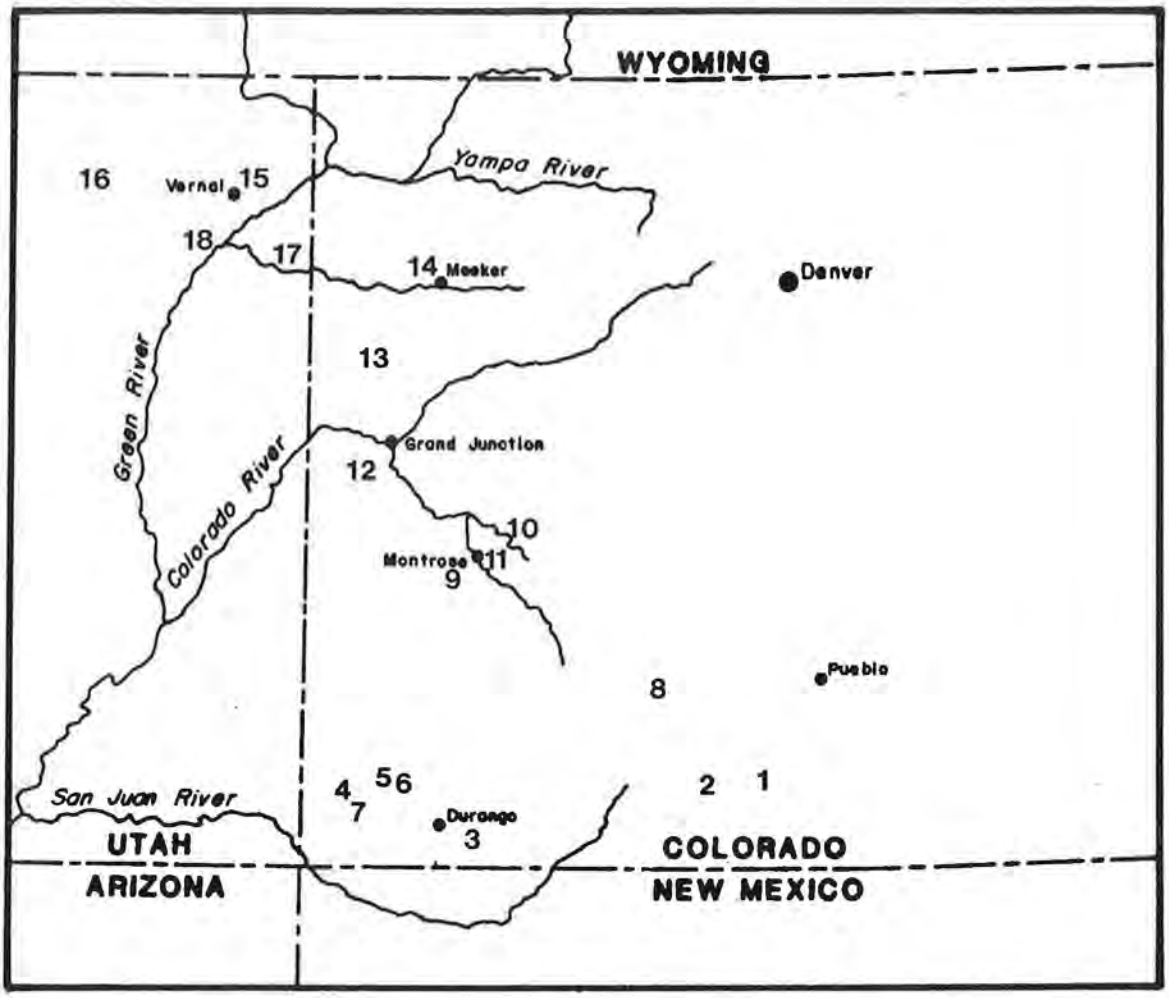

Figure 2. General locations of the Eastern Ute burials discussed in the text.

(Whittier 1924; Wiegel 1928, 1930). According to later recorded testimony by members of the burial party, the body was wrapped in new blankets and buffalo robes, then secured by cords and ropes. The body was then placed on a horse, transported to the burial site, and interred in a rocky cavern. According to the accounts, this cave also contained the burial of Chief Suvata, a Southern Ute. According to the various descriptions, horses were killed at the gravesite; however, the number of animals sacrificed varies between three (Whittier 1924:316) and five (Wiegel 1930:188). The fact that Ouray was away from his home (near Montrose) at the time of death apparently precluded a more elaborate burial, particularly in terms of determining the disposition his personal belongings and other burial accompaniments. In 1925, the fragmentary remains of Ouray were removed from their traditional resting place and reburied in the Ignacio cemetery (Wiegel 1928).

4. Cahone Burials. Limited information on two Ute interments in Cahone Canyon of southwestern Colorado comes from an unusual source, a treatise on the wood rats of Colorado (Finley 1958). The descriptions relate to the disturbance of the original burial sites by wood rats; in both cases small human bones were found in wood rat nests. Both Ute burials were located in rock crevices. There is a slight possibility that these two burials are the same one; however, the descriptions appear to place them about a half-mile apart.

5. Los Ativos Burial. In 1980, members of the Dolores Archaeological Project recovered the remains of an adult female from a small drainage near the Dolores River in Montezuma County (Chenault 1983). The burial was apparently interred in an open pit, sometime in the last half of the nineteenth century. Associated artifacts were plentiful, including glass beads, an awl, scissors, elk tooth, pendants, a metal knife, a wooden hair brush, a small worked piece of glass, and horse bit. The remains are housed at the Anasazi Heritage Center.

6. Star Bead Shelter Burial. This burial, also excavated in 1980 by the Dolores Archaeological Project, came from a crevice in the rimrock overlooking Dolores Canyon (Hovezak 1984). The osseous remains were limited, but reflected those of an adult of indeterminable sex. The corpse had been covered with rocks. Burial accompaniments include glass beads, five percussion caps, two lead balls, three metal conchas, and a textile fragment. Analysis of the artifacts points to a burial date between 1860 and 1880. These remains are also at the Anasazi Heritage Center.

7. Porter Burial. The remains of an individual, aged about 14-16, were excavated from a crevice in a rockshelter below the rim of Yellowjacket Canyon by Dr. Joe Ben Wheat of the University of Colorado Museum in the early 1950s. The burial had been previously disturbed by the landowner. Analysis of the skeletal materials yielded an assignment of sex as female (Swedlund 1969:42); however, this determination can be questioned due to the difficulties of assigning sex to subadult remains. A horse skeleton, with a bullet hole in the skull, was found on the surface. Grave goods included fragments of two Navajo blankets, braided leather fragments, and a basket. The skeletal materials and artifacts are curated at the University of Colorado Museum.

8. Cochetopa Burial. This burial was excavated in 1982 although the process was less than satisfactory due to the overzealousness of a county

Table 1. Background information for Eastern Ute burials.

No.	Burial	Type					Interment Date	Sex	Age	Site Number	References	
		Crevice/Alcove	Open Pit	Not Recorded	Rock Covered	Body Position					Description	Osteology
1	La Veta	X			X	E	1848-1880	M	Adult	Y:12:2	Renaud (1941)	Renaud (1933,1941)
2	Monte Vista	X				E	1850-1890	F	ca.19			
3	Ouray	X			X		1880	M	60		Wiegel (1928,1930) Whittier (1924)	
4a	Cahone	X					Unknown		10-12		Finley (1958)	
4b	Cahone	X					1800s				Finley (1958)	
5	Los Ativos		X		No	E	1850-1890	F	20-25	5MT5399	Hovezak (1984)	Wiener (1984)
6	Star Bead	X			X		1860-1880		Adult	5MT5380	Chenault (1983)	Wiener (1983)
7	Porter	X			No		1800s	F	14-16	5MT1		Swedlund (1969)
8	Cochetopa	X			No	E	1830-1881	M	30-40	5SH99	Scott et al.(1984)	Scott et al.(1984)
9a	Spring Creek	X			X		Unknown		Adult?	5MN23	Buckles (1971)	Quiatt (1971)
9b	Spring Creek	X			No		Unknown		Adult?	5MN23	Buckles (1971)	Quiatt (1971)
10	Black Canyon	X			X	F?	1800-1850	M	Adult		Huscher and Huscher (1939)	
11	Montrose			X			pre 1880	M	ca.35			Hummert (1981)
12	Glade Park	X			X	F	Unknown	M	Adult		Woodbury (1930)	
13	Canyon Pintado	X				F	Unknown	M	40+	5RB761	Creasman (1979)	Creasman (1979)
14	Meeker			X			1860-1880	M	Adult		Anonymous (1927) Renaud (1941)	Renaud (1941)
15	Vernal			X			ca.1880	M	Child			
16	Roosevelt		X				post 1877	F	Adult	42UN962	Lindsay and Neily (1980)	
17	White River			X			1800s	M	Adult			
18	Pariette	X			No	F	1860-1870	M	25-30	42WN1225	Fike and Phillips (1984)	Nickens (1984b)

coroner who, during the investigation period which lasted several months, disinterred the human skeleton without archaeologists being present. Nonetheless, the materials have been thoroughly analyzed (Scott, Hoffman, and Hammer 1983). The burial was located on the west-facing flank of Cochetopa Dome, a volcanic intrusion situated a few miles north of the old Los Pinos Indian Agency. The remains are those of a male, 30-40 years old at death, who had been placed in a wide bowl-shaped crevice in a rock outcrop on his back, in an extended position, and with the body oriented roughly head to east and feet to west. The corpse had probably been covered with dirt and pine duff. Eleven artifacts, representing three items placed with the body, were recovered, including a white glass button, a saddle of native manufacture, and a seashell. The saddle fragments included six wooden pieces (probably aspen) of the saddle frame and three fragments of the saddle rigging, comprised of two commercially tanned leather straps and a cinch ring. The shell was a crown couch (Melongena sp.) which had been drilled in the spire. This type of couch is native to the shores of the Gulf of Mexico from Texas to Florida. Based on the meager artifact collection and Ute history for the area, the burial was thought to date between 1830 and 1881. The human and artifactual remains are in the possession of the Colorado Bureau of Land Management.

9. Spring Creek Burials. Two primary burials were reported by Buckles (1971:1040) from a small alcove in the Spring Creek drainage west of Montrose. Unfortunately, the remains had been unearthed by local amateurs and contextual data are lacking, although it is known that one of the burials was covered by several milling stones. Due to the absence of diagnostic information, these burials are placed in the "possible Ute" category. The whereabouts of the skeletal materials is unknown.

10. Black Canyon Burial. A Ute burial was located in the 1930s by a ranger at the Black Canyon National Monument, about ten miles northeast of Montrose (Huscher and Huscher 1939:142-143). The remains were those of an adult male that had been placed beneath a large sandstone slab which had spalled from a cliff, then covered with smaller rocks and possibly dirt. No artifacts were reported with the burial, but horse bones were scattered about the gravesite. The burial most certainly predates 1881 when the Uncompahgre Utes were removed from the area. It is believed that the human skeletal remains from this burial are curated at the Denver Museum of Natural History.

11. Montrose Burial. In the collections of the Colorado Historical Society is a nearly complete skeleton of a Ute male about 35 years old (Accession No. 07362) (Hummert 1981:22-24). This burial was found in the vicinity of Montrose in the mid-1940s but its exact location and burial context are unknown. The skeleton was reportedly found by the Montrose County Sheriff who forwarded the remains to the Federal Bureau of Investigation where they were examined and then returned to Colorado. Also found with the burial and forwarded to the FBI was a rusted rifle of the so-called "Kentucky" or "Indian" percussion type. It was not possible from an examination of the submitted parts to identify the gun as to its manufacture.

12. Glade Park Burial. This burial, also an adult male, was found in a rock crevice in Glade Park, about 30 miles southwest of Grand Junction, in either 1928 or 1929 (Woodbury 1930). The burial was discovered and excavated by a local rancher and sent to the Colorado Historical Society for study.

The corpse had been placed in a niche in the rocky wall of a small canyon, with the body placed in an upright position, knees drawn up against the chest. The whole body was turned so as to face west. The opening of the niche had been covered with stones and dirt. No burial goods were recovered; however, Woodbury (1930:232) believed the burial circumstances and well preserved condition of the bones indicated probable Ute affiliation. The present location of these remains has not been ascertained. As noted, they were sent to the Colorado Historical Society for examination, but the specimen does not appear in a recent inventory of that society's osteological collections (Hummert 1981).

13. Canyon Pintado Burial. Another "possible Ute" burial was excavated from Douglas Creek area between Grand Junction and Rangely in 1977 (Creasman 1979:III 11-14). The investigators presumed the remains to be prehistoric in age, and they may well be. However, the burial situation conforms more to a Ute pattern than the earlier Fremont. The body had been placed in a small niche created by a large rock spall in a flexed position with the legs lying above the upper torso. The head was resting slightly on the right side, facing to the southwest. Artifactual material found with the burial included four small pieces of cord and four small pieces of hide. Of interest to cultural affiliation of the burial is the presence of a large rock art panel above the interment niche which includes historic Ute pictographs in the form of horse-mounted anthropomorphs. Thus, a combination of burial type and the associated rock art would appear to favor a Ute affiliation, but this designation is uncertain. The skeleton, fragmentary in nature, appeared to be that of an adult female. The remains are presumed to be in the collections at Colorado State University, the institution which conducted the work.

14. Meeker Burial. This specimen was first documented as an accession to the Colorado Historical Society's collections in 1927 (Anonymous 1927:196) and later examined by E.B. Renaud of the University of Denver (1941:21-23). The burial was that of an adult male which Renaud believed to have died between 1860 and 1880. The bones of five horses were reportedly found over the grave (type not specified), leading to the supposition that the remains may represent those of a chief. Burial accompaniments included a Henry carbine, copper wire bracelets, a broad leather belt studded with copper buttons, saddle rings, a knife sheath, and small white beads. This burial is presumably still in the Society's collections, but it does not appear in a recent inventory of their osteological remains (Hummert 1981).

15. Vernal Burial. The collections at the Dinosaur Natural History Museum include a Ute burial, the original location of which is undetermined but is presumed to be from the Uinta Basin. The remains are that of a young boy buried in a bent knee (flexed) position and dressed in a linen shirt, leggings, and moccasins. A percussion cap rifle and powderhorn were found with the burial. The burial date was estimated to be about 100 years ago.

16. Roosevelt Burial. This burial was discovered during road construction in 1980 about three miles east of Roosevelt (Lindsay and Neily 1980). The gravesite was greatly disturbed but apparently it was an open pit burial, located on the east edge of a small knoll on the Nephi Bench. The landowners had been told of the burial about 65 years prior to its accidental discovery. Associated artifacts were numerous, including fragments of a burial robe (cloth and string), assorted beads, glass, a plate, a belt, shoes, worked

Table 2. Type and distribution of Eastern Ute mortuary offerings.

No.	Burial	Horse Bones	No. of Animals	Saddle/Parts	Other Horse Items	Navajo Blanket	Glass Trade Bead	Scissors	Elk Tooth Pendant	Awl	Knife/Sheath	Wooden-handle Hair Brush	Nail	Worked Glass	Rifle	Percussion Cap	Lead Ball	Powderhorn	Copper Jacket Shell	Metal Projectile Point	Textile Fragment	Leather Fragment	Body Wrap	Clothing	Glass Button	Marine Shell	Basketry	Metal Clothing Ornament	Metal Body Ornament	Stone Pipe	Clay Pipe	Metal Eating Implement	Crockery	Cordage/Rope	Hide Fragment	Large Mammal Tooth	Worked Bone	Axe	Clay Marble	No. of different Items
1	La Veta			X			X								X					X										X		X							6
2	Monte Vista						X																						X					X						3
3	Ouray	X	3-5	X																			X											X						4
4a	Cahone																																							0
4b	Cahone				X		X														X												X						4
5	Los Ativos				X		X	X	X	X	X	X	X	X																										9
6	Star Bead						X									X	X				X	X						X												6
7	Porter	X	1			X																X					X													4
8	Cochetopa			X																					X	X														3
9a	Spring Creek																																							0
9b	Spring Creek																																							0
10	Black Canyon	X	?																																					1
11	Montrose														X																									1
12	Glade Park																																							0
13	Canyon Pintado																																X	X						2
14	Meeker	X	5	X			X				X				X				X					X				X	X											9
15	Vernal														X			X						X																	3
16	Roosevelt						X																X	X										X	X		X	X			7
17	White River			X	X																			X			X													4
18	Pariette			X	X	X	X						X										X	X					X		X						X	X		11
	Total	4	-	6	4	2	8	1	1	1	2	1	2	1	4	1	1	1	1	1	2	2	3	5	1	1	2	2	3	1	1	1	2	4	1	1	1	1	1	
	Sex: Male	3	-	6	2	1	3	0	0	0	1	0	1	0	4	0	0	1	1	1	0	0	2	4	1	1	1	1	2	1	1	1	0	2	1	0	0	1	1	
	Female	1	-	0	1	1	3	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	0	0	1	0	1	0	0	0	1	2	0	1	1	0	0	
	Unknown	0	-	0	1	0	2	0	0	0	0	0	0	0	0	1	1	0	0	0	2	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	

bone, large mammal teeth, and crockery fragments (dated 1877). The human remains were not aged or sexed, but they appear to be those of an adult, probably female based on the artifactual materials. The remains were reburied.

17. White River Burial. In 1956, an adult Ute male burial was located about two miles above the Bonanza bridge in east-central Uintah County. The skeletal materials were turned over to the Dinosaur Natural History Museum in Vernal (Accession No. 275), along with remains of a saddle, bridle, basket water jug, moccasins, and other unidentified articles. The items were returned to the Uintah and Ouray Utes in February of 1963 for reburial.

18. Pariette Burial. The remains of an adult male were excavated in 1982 near Pariette Draw, Uintah County, by the Bureau of Land Management (Fike and Phillips 1984). The corpse had been placed in a narrow vertical cleft in the rocks, probably sometime during the 1860s. Burial accompaniments included clothing, numerous glass beads, horse gear, a buffalo robe, ornaments, an axe, a clay pipe, and textile fragments (including a Navajo blanket). Following analysis, the burial was returned to the Ute Tribe and reburied.

DISCUSSION

Review of available sources has yielded information on twenty burials which are believed to be or stand a good chance of being Ute in origin. Four of these (Nos. 9a, 9b, 12, and 13) have been designated as such only by contextual information; the remainder are fairly secure in their assignment. It is obvious that the best indicator of cultural affiliation is one which is based on a combination of three types of data: location and context, presence of nonaboriginal implements and ornaments, and date of interment. It is unfortunate that only those burials encountered and reported within the past few years can be said to be adequately analyzed. Many of the earlier specimens are simply characterized by sketchy or unspecific documentation, and there does not appear to be much chance of either reconstructing or reanalyzing many of those data.

Even a casual examination of the archaeological data for Ute burials reveals a high degree of conformity with the general ethnographic model of Ute mortuary practice, especially in the area of corpse disposal. As expected, there is some variation exhibited in the record, just as it is expressed in the ethnographic accounts. Moreover, there are no traits or patterns occurring in the available archaeological data which would not be expected following a perusal of the written descriptions.

Burial Type

There is overwhelming indication that the crevice burial was preferred in pre-reservation times. Of the recorded types, fourteen of sixteen occurrences are of this form. The two noncrevice burials appear to be of the open pit form. The remaining four are unknown. Almost all of the corpses were covered with rocks in situations where this trait was documented. However, in nearly one-half of the burials under analysis, the presence or absence of covering was not reported. Similarly, there is no clearcut preference for either extended or flexed body position.

Age at Time of Death

It was observed previously that an archaeological skeletal population should mirror the demographic and physiological characteristics of the living population from which it is derived. Unfortunately, the skeletal sample available for the Ute is too meager to draw any meaningful conclusions. As shown below, there is an absence of individuals below the age of ten, which is somewhat surprising since infant and childhood mortality rates among the early Ute bands would probably have been relatively high. Whether or not these data reflect a different burial practice for the young is a question which cannot be answered at this time.

Age at Death	Sex			
	Male	Female	Unknown	Total
10-20	1	2	1	4
20-30	1	1		2
30-40	2	0		2
40+	2	0		2
Adult	5	1	4	10
	11	4	5	20

Date of Burial

The year or timeframe in which the death and burial occurred is a complex variable. Even given the potential for dating of nonaboriginal items, what we often end up with is simply a range. Once again, we also run into the problem of sketchy reporting for the early finds. Evaluation of the available information results in the following breakdown:

Unknown	- 5	The lack of grave accompaniments or datable items is the leading factor here.
1800s	- 3	The presence of trade-derived goods is observed, but the information is sketchy.
1800-1850	- 1	The Black Canyon burial was assigned this age by the finders; however, it is based solely on an absence of metal items.
1850-1890	- 11	
Total	20	

There are two items of interest which are apparent in this distribution. First, for the unknowns and those dated to just the 1800s or pre-1850 there are insufficient data problems; either they fall into the "possible Ute" category or information is simply lacking to be able to make a more accurate placement. Second, in each case where an adequate evaluation can be made, the probable date falls between about 1850 and 1880 or 1890.

Burial Accompaniments

The funerary offerings represent one of the most fascinating study topics not only for mortuary customs but also for other aspects of Ute

culture. In addition to the mortuary aspects, the grave goods have potential for contributing to our understanding of such things as general material culture, trade or other acquisition of items, sex-related items, and status. Additionally, comparative studies are possible for both temporal and spatial contexts in which acquisition, prevalence, and spread of particular items or complexes took place.

Following the general categories of grave goods employed by O'Shea (1984), item occurrence in the Ute graves can be summarized as follows:

> Trade-derived body ornaments - metal pendant, copper wire bracelet, bracelet, hair plate, necklace bead
>
> Trade-derived clothing ornaments - German silver concho, copper buttons, glass trade bead, glass button
>
> Trade-derived implements - horse gear, scissors, metal awl, metal knife, wooden brush, nails, glass, gun/parts/accessories, metal arrow point, clay pipe, metal eating implement, crockery and dishes, axe, clay marble, clothing
>
> Native ornaments - elk teeth, large mammal tooth, conch shell
>
> Native implements - Indian saddle, Navajo blanket, Buffalo robe, basket, worked bone, stone pipe, clothing

Reference to Table 2 indicates that trade-derived items are predominant over native items by a wide margin. When present, aboriginal artifacts are usually restricted to one or two occurrences, except for the native saddles and Navajo blankets. The distribution of native versus non-native funerary goods is, however, undoubtedly related to the fact that most of the burials with accompaniments date to the last half of the nineteenth century, a period in which trade-derived goods were becoming more commonplace.

Sex-related distribution follows the expected for the most part. The presence of horse sacrifice and/or horse gear is dominantly male-oriented. Excepting the Porter Burial, at which the sex designation is questioned, the only female burial with horse gear is the Los Ativos Burial. Little can be said about the actual number of horses killed since none of the animal remains has been physically verified. Weaponry has been found exclusively with male burials. Utilitarian items reflect male-female divisions, although some tools, such as knives, could be expected to occur with either sex. Ornaments are also found with both males and females; the present data are insufficient to be able to identify sex differences in ornamental artifacts.

The question of status also cannot be addressed at this point. According to the historical accounts, leaders or influential Utes could be expected to be buried with more elegance. However, it is impossible to account for the associated destruction of property, and none of the burials under study indicate other than essential personal items being placed within the graves. Also, differential preservation has to be considered, depending on the type and physical location of the burial. Finally, it is probably more than coincidence that those burials with the most numerous and diverse artifact assemblages (see Table 2) are also those which have been analyzed and reported within the past few years.

Culture Change

Aside from the noting of a positive correlation between the ethnographically-derived mortuary practice model and the archaeological burial data, the most interesting result of this analysis centers on the relative recentness of the existing burial population. If we disregard, for the moment, those burials which have the potential for actually being other (i.e., earlier) than Ute, and those few for which insufficient dating is available, then our total datable population comes from the last half of the nineteenth century. Based on this evidence, it can conversely be said that we probably do not have any definite Ute burials which predate about the middle of last century. This does not necessarily imply that Utes were not in the region before circa 1850, because we know from the historical accounts that they were present much earlier. What may be presently hypothesized is that in terms of mortuary practice it may not be possible to assign Ute affiliation until the associated material culture complex is such that it can be readily identified in the archaeological record. Similarly, it would be expected then that the Ute mortuary practice model taken from the early accounts and informants may only be valid back to ca. 1850, at least in part. Certain aspects of Ute mortuary practice, particularly those which are difficult to impossible to detect in the archaeological record, may well precede that point in time, but corroborative data cannot be discovered.

If there was indeed a change in some elements of Ute mortuary practice during the nineteenth century, it cannot be attributed solely to the presence of the horse, since it also was in Ute hands back into at least the 1700s. It seems more likely that the presence of the horse and the widespread appearance of trade goods and government annuities in the middle and late nineteenth century combined to create Ute mortuary customs as we know them from the historical accounts. Of course, what is needed to verify this shift are earlier dated burials. It is interesting to note that there is currently no human burial in the Eastern Ute territory which has been dated to the period between the 1200s and ca. 1850; in fact, there are very few candidates even available, other than those identified herein as "possible Ute."

SUMMARY

A review of the written and archaeological data for Ute mortuary practice has resulted in development of an ethnographic model for pre-reservation Ute burial customs and an evaluation of how well the archaeological information correlates with that model, particularly with respect to corpse disposal. Generally speaking, there is a good degree of conformity between the expected pattern and the available physical data. However, it is noted that the observed traits may only go back a few decades prior to the beginning of the reservation era, as indicated by the apparent age of burial and grave accompaniments of those specimens examined by the analysis. While one or more of the few undated burials could predate 1850, none has been to this point. As a consequence, based on the available information, it is hypothesized that sometime around the middle of the nineteenth century changes may have occurred in Ute mortuary practices, evinced by animal sacrifice and the inclusion of horse-related and personal items thought to be useful to the dead in the afterlife.

A final comment involves reiteration of the importance that such remains and their artifactual accompaniments have for achieving a better understand-

ing of the early Ute. It is imperative that burials encountered in the future receive adequate analysis, both of the osseous remains and any funerary items. This necessity is critical not only for looking at biological aspects but also for the potential of these data to contribute to other facets of Ute culture. This need for meaningful and thorough analyses is also increased by the current awareness and interest on the part of Native American peoples (and many archaeologists) in ensuring respectful treatment of human remains and grave goods and by the heightened chance for the eventual reburial of these materials.

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CONICAL TIMBERED LODGES IN COLORADO OR WICKIUPS IN THE WOODS

by

Douglas D. Scott

INTRODUCTION

The conical timbered structure, or as it is more commonly called the wickiup, is a relatively rare archaeological site in Colorado. Wickiups are generally believed to date to the historic aboriginal period of human occupation and are most often associated with the Utes. Wickiup sites have been associated with Ute occupation because the first wickiups were found in traditional Ute territory and they have been dated to the historic Ute occupation period (Buckles 1971; Huscher and Huscher 1939).

This paper will review the geographic distribution of wickiups and place Colorado's sites in a regional cultural context. Site distribution, patterning, and dating will also be discussed for Colorado, and concepts for site management will be presented.

GEOGRAPHIC DISTRIBUTION AND SETTING

Wickiups are a relatively rare site type, but they are found throughout the intermountain west. Conical timbered lodges of several distinct styles are found in Montana, Wyoming, Utah, New Mexico, Arizona, North Dakota, and of course Colorado (Davis 1975; Shippee 1971; Smith and Sharrock 1974; Allen 1983; Cassells 1983). Lodge construction varies somewhat from area to area, but two basic styles predominate. The first style is the freestanding lodge. It is constructed of gathered or cut poles arranged together to form a cone with the pole butts resting on the ground surface or pushed slightly into the ground. Stones occasionally partially or completely ring the poles. Their purpose is not clear, but they may have either supported the poles or acted as weights for a hide covering. Freestanding wickiups vary radically in size from 1 to 2 m in diameter to over 6 m in diameter. The smaller size group appears to have less formalized construction methods. They tend to have randomly selected poles of uneven size and length - generally eight to twenty poles - laid up to form the cone (Figure 1). Archaeological evidence suggests they may have been hide covered, brush or bough covered, or a combination of both. Ethnographic data, primarily photographic (Euler 1966; Smith 1986), depict this style as covered with both brush and hide on a single structure. The photographic evidence dates from the last quarter of the nineteenth century to the first ten years of the twentieth century.

Photographic and archaeological data suggest the interior may have a single hearth or no hearth. As often as not the hearth is located outside the structure. Some structures appear to have unprepared dirt floors while others may have had juniper bark scattered over the floor or prepared juniper bark mat floor coverings. Activity areas tend to be located to the exterior of the structure.

Figure 1. A free-standing wickiup, Structures 5 and 6 at 5ME469.

Figure 2. The remains of a lean-to style wickiup at 5MN41.

The second prevailing structural type is the supported or lean-to wickiup (Figure 2). This structure type appears to have less rigorous construction needs than the freestanding type. Generally, the lean-to type is made up of irregularly shaped cut or gathered limbs and branches. These "poles" are laid up against a standing tree, and often consist of 4 to 10 poles laid around one side of the tree. Rarely do they ever encompass more than one-half of the tree. Presumably, these structures were covered with hide, brush, or both. Rarely do they have an interior hearth. Smith (1986:20) illustrates one of the lean-to style wickiups in a late nineteenth century photograph taken in Unita Valley. The lean-to in the photograph appears to be constructed of green branches laid around a live tree as described.

The limb or "pole" size for both styles is variable with a common range of 5 to 25 cm. Pole height is also variable with ranges of 1 to 8 m.

Conical timbered structures are most often found in sheltered and secluded locations. They are generally found in timbered areas, and occasionally, in canyons and badlands. In Colorado conical timbered structures are usually found in well-timbered pinyon and juniper forest environments. They have been noted in aspen and other timber as well (Johnson 1972). They do not appear to survive in open localities as might logically be expected, since natural as well as human forces would have debilitating effects on such exposed fragile resources.

CULTURAL SIGNIFICANCE

In the intermontane west, where wickiups occur, they are associated with various tribal entities such as Apache, Paiute, Ute, and Shoshone (Kidwell 1969). Kidwell (1969) has done an excellent study of the ethnographic and archaeological literature of conical timbered structures on the northern Plains. This summary is drawn from his work and supplemented by more recent additions to the literature base. Most wickiups appear, from ethnographic comparison, to be temporary habitations for small mobile bands. They were used by hunting parties as temporary shelters, by foragers also, but some groups had other uses as well. Smith and Sharrock (1974) note for Montana that some of the more substantial conical timbered structures were used as war lodges. These lodges were usually placed in concealed areas and were used by war parties for sleeping. War lodge locations were known to party leaders and were often reused, if other war parties were moving to attack the same enemy group again. In Montana they also report hunting parties reused existing lodges as resting places, and they note it is not possible to determine lodge function by its location or general configuration.

In North Dakota along the Little Missouri river and within the badlands country wickiups are found, which are very similar in construction to those seen in Colorado. Allen (1983) notes that these wickiups and their locations have a high degree of correlation with the known distribution of eagle trapping sites. It appears some of the wickiups are, in fact, eagle trapping lodges themselves. He reports on 13 lodges or wickiups which appear to have association with eagle trapping activities of the Mandan-Hidatsa.

It is clear that wickiups have varied uses throughout the intermontane west and are associated with a variety of aboriginal groups. The majority of surviving wickiup examples appear to be associated with mobile groups like the Ute. The known sites also appear to date to within the last 250 years. Kidwell (1969:24-27) considers conical timbered structures to have considerable historic depth, but he does not advance a specific date range.

COLORADO WICKIUPS

A review of the Colorado Preservation Office site files and the BLM Anasazi Heritage Center data base indicates there are at least 61 recorded wickiup sites located in 13 Colorado counties. These sites contain at least 234 individual wickiup structures (Table 1). One site each also has associated features like a tree platform (Figure 3), a stone structure, and scarred trees. Five sites have associated brush structures. An additional site in North Park (Johnson 1972) containing five freestanding structures is omitted since it has not been formally recorded.

Table 1

Wickiup Sites and Associated Structures by County

County	No. of Sites	No. of Wickiups	Other Structures
Archuleta	1	1	
Chaffee	1	1	
Eagle	3	8+	
Garfield	5	67+	
Gunnison	2	2	
La Plata	3	3	
Mesa	7	25+	1 tree platform 4 brush structures
Moffat	2	3+	1 brush structure
Montrose	8	59+	
Montezuma	1	1	
Ouray	1	1	
Rio Blanco	25	61+	1 stone enclosure
San Miguel	2	2	23 scarred trees

With one exception all recorded wickiup sites are west of the Continental Divide and are located above 6000 feet of elevation. The one exception is a single wickiup site located in Chaffee County. It also appears to be above 6000 feet of elevation. The elevation factor is probably an artificial one in that the majority of sites are situated in woodland environments, and that is a factor of elevation in Colorado, as is well known.

Figure 3. A collapsed tree platform associated with a free-standing wickiup at 5ME469.

The Colorado wickiup sites have been dated by two methods. One is the presence of associated datable artifacts such as glass trade beads, other trade goods, and brownware aboriginal pottery. The second method are tree-ring samples. Five sites, that I am aware of, have been dated by the tree-ring method (Reed and Scott 1982). These are 5MN41 dating 1741+variable, 5MN42 dating 1763 variable and 1762 variable, 5ME469 dating 1750++very variable, 5GF308 dating to 1813 very variable, and Structure 5 at Talus Village near Durango dating mid-1700s (Dean 1969). Given the probability that some branches and poles used in the construction of the wickiups were dead fall and the tree-ring dated samples are missing their outer rings, it is best to say that the dated wickiups fall into a range of the mid-seventeenth to mid-nineteenth centuries. Only one of the recorded sites can so far be associated with a historically identified Ute occupied site. Bill Kight reports that 5GF308 is the site noted by F.V. Hayden in 1874 as being occupied by a Ute family who tended a small garden and herded a few cattle. All the sites that can be dated either through tree-rings or associated pottery fall into the known Ute settlement range by geographic distribution and date.

Conical structures also appear in rock art depictions. These depictions are associated with rock art styles again associated with a Ute origin (McKern 1978).

The most comprehensive studies to date of Colorado wickiups have been those of Buckles (1971) on the Uncompahgre Plateau and Gordon et al. (1983) in the Texas-Missouri-Evacuation Creeks areas. Buckles focused his study on the Uncompahgre Plateau on the development of a cultural chronology and culture history of the region. His discussion of wickiups draws on the early work of Harold and Betty Huscher (1939) and his own findings during field work in the Montrose area.

Buckles describes the structural types found, their method of construction, and associated artifacts. His descriptions do not differ from those presented at the beginning of the paper. Buckles' structural styles fit neatly into the intermontane construction styles as defined earlier. One important point Buckles (1917:1264) makes is that he believes the wickiups represent spring through fall use of temporary shelter. He cites the Huschers' (1939) work in suggesting that winter structures were located at lower elevations. To my knowledge no such sites have yet been recorded, but most of the lower elevations in Colorado are not being regularly inventoried because they are not in public ownership. Buckles is of the opinion, based on oral history accounts, that Ute winter shelters in the 1880s were cedar (juniper) post stockade cabins plastered with adobe. I interpret this to mean a mud or earth covered post or picket structure, not unlike some circular hogans.

The second study by Gordon et al. (1983) discusses the probable Ute association of five wickiup sites found in Rio Blanco county. The sites they describe fit the range of variation found throughout the intermontane west. They note that the sites, through artifact associations and affiliated rock art, appear to represent transient hunting and gathering activities. One of the most important observations they have made is that the wickiup settlement pattern appears different from that of earlier periods. The study (Gordon et al. 1983:202-204) notes the settlement pattern to be sites located in dense

pinyon-juniper forests on low primary terraces of major drainages. That observation is consistent with the other recorded wickiup sites allowing for some variation. They further note that this pattern appears to represent a shift away from the recognized settlement system of earlier sites. The significance of this shift is not yet understood, but it could reflect the introduction of Numic cultural traits into the area.

In essence all we know about wickiup sites is that they date to the Ute period of occupation, and the settlement pattern is recognizably different from that of earlier groups occupying the same environmental zones. Wickiup construction types are evident and easily identified, but very little detailed mapping or excavation has been completed at any of the recorded sites by professionals. This lack of controlled comparative data is hindering our efforts at site definition, attempts at cultural association, and development of site management efforts.

SITE MANAGEMENT CONSIDERATIONS

The rarity of wickiups or any potentially Ute associated site makes that site significant from both the academic and public perspective. It is my opinion that any wickiup site, unless completely destroyed, is important and significant in legal terms. Until we know more about settlement patterns, resource utilization, and site structure, almost any site is likely to yield information important to understanding the past.

Given that view, what can we do to record, protect, and manage these sites? First, is better recordation as new sites are found. In reviewing the available site forms and data it is evident that wickiup site recording is inconsistent and almost haphazard. The site forms do not allow a researcher to go much beyond the simple descriptions presented here. Sites containing wickiups need to be carefully recorded, and individual wickiups should be photographed and sketched as well as mapped. Mapping should be detailed and verbal descriptions should also be extensive - especially those describing construction techniques. Definition of site boundaries should be given careful consideration so as not to exclude associated activity areas. These data will form the baseline for developing a comprehensive research design relating to wickiups, and should be appropriate to devise site protection measures.

Protection is a difficult issue. This site type is among the most fragile in the archaeological resource base. Maintaining site integrity is critical to a site's protection. This means limiting access to site areas, insistence that no timber harvesting, firewood gathering, grazing, or controlled burns be allowed in wickiup areas. Reality limits these opportunities; so to be practical fencing is an alternative that is achievable and relatively inexpensive. Another means of protection is to record and collect selected wickiup sites so that they can be placed in a collections management facility or displayed as an interpretive exhibit for the public. This is not a practical alternative in most circumstances, but it may be a viable one in specific cases.

Management of wickiup sites is as thorny an issue as protection as they go hand in hand. Developing appropriate site specific management plans for state and federally held sites is one means of management, although often

idealistic. Ideally a comprehensive management plan would select some sites for total excavation and analysis to establish a comparative base for less intensive studies. Within this plan a number of other sites in different locations and with different types of structures would be identified to be monitored over a ten year period. The selected sites would be monitored two or three times a year to determine the process of deterioration that the site will naturally suffer. At the end of the study then a detailed plan would be produced that would identify the causes of structural failure and possible means to arrest them, or develop a comprehensive data recovery plan that will mitigate the damage.

At this point in our knowledge of wickiups any research design should include as a minimum these points: (1) adequate recordation and mapping to begin to understand intrasite and intersite layout or variability; (2) detailed structural analysis of construction techniques to determine if there are changes through time; (3) temporal control to determine the age of these structures and to gain a better understanding of the date-ranges of associated artifacts; (4) spatial patterning of the sites in terms of their elevational distribution, associated environmental characteristics, and horizontal distribution. These items will provide a baseline data set with which to compare Colorado wickiups with those of the Plains and intermontane west. With these regional comparisons and analyses perhaps they can be used to develop a better culture chronology to more adequately define a Ute archaeology.

The realistic situation is that unless a project comes along that will require a wickiup site to be extensively mitigated, the best we can hope for is to implement better recording of sites as they are found. The best protection we are likely to be able to offer most sites is our knowledge that a site exists in an area and to encourage land managers not to do anything to upset the natural balance that now allows the site to exist.

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EUROAMERICAN GOODS IN THE MATERIAL CULTURE OF THE UTE PRIOR TO 1882

by

Jonathon C. Horn

Investigation into the origins of the Ute has been identified as an important archaeological research domain in western Colorado and eastern Utah. However, identification of Ute cultural affiliation of sites or site components based on material remains has proven to be a difficult task and culturally diagnostic prehistoric artifacts or assemblages attributable to the Ute have not been identified. This has left the prehistoric record open as to the Ute's origins and tenure in the region.

Because diagnostic prehistoric cultural markers have not been identified, the most logical manner in which to pursue Ute origins would appear to be from the historic or protohistoric era back through prehistory. Aboriginal sites containing Euroamerican goods are virtually the only sites which can definitely be attributed to the Ute. While worthy of study in their own right, historic or protohistoric Ute sites may provide a stepping stone to the past. If traits can be identified archaeologically in the material culture at these sites, it might be possible to trace them into prehistory, especially if stone tool assemblages are found in association.

Table 1 is a partial list of aboriginal sites and burials where Euroamerican goods have been found in western Colorado and eastern Utah. Nineteen of the locations are sites while 18 are burials. The level of description and analysis of these sites and burials are quite varied from little more than hearsay in the early reports to well documented investigations in recent years. With increased focus on Ute studies in recent years, more Ute sites have been recorded and investigated than in the past.

Burials have an advantage of having the actual physical remains of the individual associated with the artifacts present for study, providing excellent physical-cultural context. Because burials have yielded a wide array of items linked to individuals and tied to a moment in time, such things as acculturation, assimilation, adaptation, trade, and status of individuals through time can potentially be studied. Other site types, such as habitation or special use locations, have potential for yielding spatial and functional information about Ute lifeways not present in burials.

In order to have a firm foundation from which to trace the origins of the Ute, a solid body of data will be required from known Ute sites. The quantity of known Ute sites needs to be increased to provide that data. Historic artifacts appear to be the key. Historic artifacts, therefore, cannot be dismissed out of hand as intrusive on an otherwise all lithic site if one is serious about identifying Ute components. Proper identification of historic artifacts as to function and temporal period is imperative.

It may come as a surprise to many that Euroamerican manufactured goods were being distributed to the Utes and Apaches by the U.S. government at the

Table 1. Partial List of Sites and Burials Where Aboriginally Used Euroamerican Goods Have Been Found

Site # or Location	Site or Burial	Reference
5DA268	Site	(Miller and Fiero 1977)
5DL1888	Site	(Toll 1976)
5EA433	Site	(Grand River Institute 1981)
5GF529	Site	(Burgess et al. 1980)
5LP579	Site	(Winter, Ware and Arnold 1986)
5LP597	Site	(Winter, Ware and Arnold 1986)
5ME4971	Site	(Nickens and Associates 1986)
5MN13	Site	(Buckles 1971)
5MN34	Site	(Buckles 1971)
5MN35	Site	(Buckles 1971)
5MN40	Site	(Buckles 1971)
5MN42	Site	(Buckles 1971)
5MN47	Site	(Buckles 1971)
5MN48	Site	(Buckles 1971)
5MN2341	Site	(Horn 1988)
5MT1	Burial	(Swedlund 1969)
5MT5380	Burial	(Hovezak 1984)
5MT5393	Burial	(Chenault 1983)
5RB418	Site	(Weber et al. 1977)
5RB443	Site	(Weber et al. 1977)
5RB699	Site	(Creasman 1979)
5SM99	Burial	(Scott, Hoffman and Hammer 1984)
Meeker, Colorado	Burial	(Lloyd 1927)
in Montrose, Colorado	Burial	(F.B.I. to Sutton, 1946)
near Cahone, Colorado	Burial	(Finley 1958)
near Monte Vista, Colorado	Burial	(Jay Beyer, pers. comm. 1984)
on White River, Colorado	Burial	(Sinclear to PRN 1987)
Dinosaur National Monument	Burial	(Sinclear to PRN 1982)
42GR1641	Site	(Bradley et al. 1984)
42UN962	Burial	(Lindsay and Neily 1980)
42UN1225	Burial	(Fike and Phillips 1984)
42UT225	Burials	(Reed 1966)
near Beaver, Utah	Burial	(Engineer Dept., U.S.Army 1879)
near Fillmore, Utah	Burial	(Bailey 1954)
Ogden, Utah	Burials	(Reed 1966)
Sanpete Valley, Utah	Burial	(Reed 1966)
Spanish Fork Canyon, Utah	Burial	(Reed 1966)

Cimarron agency in northern New Mexico by 1846 (Keleher 1942:30). Prior to this, Euroamerican goods were certainly obtained by the Utes to some degree from the Spanish and Mexicans to the south and from fur trappers who ran trading posts such as Fort Robidoux near present day Delta, Colorado. In the northwest portion of the Ute culture area, contact with the Mormons, beginning in the 1840s, would certainly have resulted in acquisition of Euroamerican-made goods. With the signing of the various treaties with the Utes, and establishment of Indian agencies throughout the region, distribution of annuity goods became a commonplace occurrence. The influx of miners and settlers to Colorado as a result of the 1859 Pikes Peak Gold Rush and subsequent rush to the San Juan Mountains throughout the 1870s certainly increased the quantity of Euroamerican goods available to the Utes. In fact, the Rocky Mountain News reported Utes trading in Denver as early as 1865 (Rocky Mountain News 19 May 1865; 28 August 1865). All of the goods available to the white population in general could certainly have been obtained by the Utes in some manner. These items can, therefore, be expected to turn up at archaeological sites.

With the exception of one site, all of the historic artifacts found at the Ute sites listed in Table 1 date to the middle and late 19th century. The reason for this is probably due to the increased availability of Euroamerican goods correspondingd with the large influx of Euroamerican settlers during the period throughout the region. The only exception is site 5EA433 for which a calibrated radiocarbon age of A.D. 1410-1630 was obtained (Grand River Institute 1981). This date, however, appears entirely too early to be associated with the single historic item which was found. Because the quantity of Euroamerican goods available to the Utes prior to the 1840s and 50s was probably low, distribution of those items was probably not very wide. As a result, sites containing Euroamerican goods dating prior to the mid-19th century should be located closest to the point of culture contact. The most likely locations would be in northern New Mexico where Spanish contact occurred as early as the 17th century and in the vicinity of trading posts dating to the 1810s to 30s. It is in these locations that sites should exist which demonstrate the transition from the prehistoric to protohistoric.

The presence of historic items can result in relatively precise dating of a site. This not only allows sites to be placed in chronological sequence but also in a context of known historical events. The function of historic artifacts can be readily identified as well. Because sites containing historic items can be dated and their artifacts identified with relative ease, study of culture process may be more adequately addressed.

Certain historic items, such as glass beads, can be considered to be diagnostic of Indian culture when found on an archaeological site as they were infrequently used by Euroamericans and were produced specifically as a trade item. Other artifacts such as gun parts, ammunition, cans, glass and other common items must be judged on the context in which they are found to determine whether aboriginal utilization can be assigned. Modification of these common items may provide insight. Sheet metal scraps made into cone-shaped tinklers or cartridges made into pendants may indicate aboriginal reuse. Care should be taken in identifying reuse of certain items - especially bottle glass - which can be flaked by natural means to form apparently humanly made tools (Knudson 1979). Again, context is the key.

Recently, a Ute component was discovered at site 5MN2341, a small rockshelter on the Uncompahgre Plateau near Olathe, Colorado. On a small flat on the opposite side of a small drainage at the base of the rockshelter, several white, light blue and dark blue seed beads were found along with a cartridge. Further examination of the area revealed two lead sealed hole-in-cap cans, two small, round, friction-top cans, an oblong can, a stamped sheet metal spoon, and a length of decorative, handmade chain. The headstamp on the cartridge revealed it was a .45-70 U.S. Government military load manufactured in April 1879 (Bearse 1966:42; Barnes 1972:63). The beads were very small and well made drawn seed beads of the sort common between about 1840 and 1890 (R. Sprague personal communication 1987). The chain was a piece of decoration from a Spanish ring spade bit identical to chain found associated with Ute burials at 42UN1225 (Fike and Phillips 1984:49-53) and 5MT5393 (Chenault 1983:9,11,18). Since the Ute were removed from western Colorado to Utah late in 1881, it is hypothesized that the Ute component dates sometime between the middle of 1879 and the end of 1881.

The Ute component at site 5MN2341 points out several problems in identifying historic Ute sites. First, the transient, highly mobile lifestyle of the historic Ute did not lend itself to deposition of large quantities of artifacts. Second, items which can definitely be attributable to aboriginal culture form a small percentage of the artifact assemblage. Seed beads like those found at 5MN2341 are tiny and can easily be overlooked. Third, the most visible artifacts at the site - the cans and spoon - are usually dismissed out of hand as being Euroamerican in deposition. Without the associated beads, aboriginal use would most likely never be considered. Fourth, most archaeologists do not have the resources or inclination to identify cartridges or other items they are not familiar with, thereby leaving the picture incomplete. Historic Ute sites are ephemeral, difficult to identify with certainty, and easily overlooked. Rigorous field and analytical methods are critical in their proper identification and assessment.

Numerous documentary sources exist which may be greatly enlightening in the study of Ute utilization of Euroamerican goods prior to 1882. The most immense, untapped primary resource is Record Group 75 of the National Archives held at the Federal Records Center in Denver and Washington, D.C. These include letter books, correspondence, statistical reports, inspection reports, receipts, vouchers, invoices, bills, financial and accounting records, contract and consignment abstracts, requisition and transmittal drafts, estimates of annuity goods and supplies, schedules of issues to the Indians, advertisements and awards of bids, and contractual documents. In short, everything pertaining to the distribution of goods to the Utes by the U.S. government should be contained in those records. Swadesh (1971:61-71) has compiled a list of what is contained in Record Group 75 about the Utes in Colorado.

House Executive Documents should also be investigated. Numerous reports pertaining to the Utes are contained within the series. Those concerned with the Utes in Colorado are included in Stewart's (1971:7-60) ethnohistorical bibliography.

Another primary source which holds great promise are photographs. Photographs may be found in private collections, local museums and libraries, or in regional and national archives. Care should be taken when using

photographs that the cultural group and time period of the photo are properly identified. It is also important to consider whether props were used in a photograph which might be misleading.

Personal accounts, diaries and letters of early explorers, travelers and settlers may be another source of primary documentation. Many early accounts have been published and are readily available. Many others certainly exist in private collections, public institutions, and archives and will require rigorous research to uncover and evaluate.

Stewart (1971) is an excellent bibliographical reference for both primary and secondary source material. Probably the best secondary source available for research are newspapers. Numerous newspapers were in existence prior to 1882 and articles concerning the Ute were fairly common. Many newspapers have been indexed making it quite easy to locate pertinent articles. An annotated list of articles about the Ute by newspaper has been compiled by Stewart (1971:73-94).

Numerous museums contain collections of historic Ute items, many dating prior to 1882. The vast majority of these items have come from private collections and are lacking good provenience information or reliable dates. They do, however, provide good comparative information. Museums which are known to house historic Ute artifacts include the Denver Museum of Natural History, the Museum of Western Colorado in Grand Junction, the Ute Indian Museum in Montrose, the Dinosaur Natural History Museum in Vernal, Utah, the Meeker Museum (Meeker, CO), and the Thread of the Pioneers Museum in Steamboat Springs. Archaeologically recovered materials may be found at the respective repository where they are curated. An excellent comparative collection of trade beads is housed at the Alfred E. Bowers Laboratory of Anthropology, University of Idaho. The quantity and variety of historic Ute artifacts in private collections are not known but are suspected to fairly substantial. Private collections, when accessible, are a source of comparative materials which should not be overlooked. Private collectors may also be important in the identification of previously undocumented historic or protohistoric Ute sites.

Historic artifacts and documentary sources are a largely untapped source of information with very high potential in the study of the historic and protohistoric Ute. Because historic Ute sites are ephemeral in nature and contain artifacts not generally perceived as the remains of aboriginal culture, they can be easily overlooked. Rigorous field and analytical techniques in documenting historic Ute sites and their contents should be extremely fruitful in delineating the effects of Euroamerican contact with the Ute. While archaeologically important in their own right, historic Ute sites may also prove to be a key in tracing Ute culture back into prehistory.

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CHARACTERIZATIONS OF UTE OCCUPATIONS AND CERAMICS FROM SOUTHWESTERN COLORADO

by

David V. Hill and Allen E. Kane

INTRODUCTION

This paper presents a summary of inferred Ute occupations in the Dolores area and the results of a petrographic analysis performed on a small sample of sherds from Ute archaeological site contexts also from the Dolores area. The results are used to infer ceramic manufacturing processes; Ute techniques appear to be distinctive from the other two prehistoric ceramic manufacturing traditions in southwestern Colorado, the Anasazi and the Athabascan. Directions for Protohistoric Period research and interpretation of material scatter sites are suggested.

It is known from the historic accounts of early Spanish explorers and French furtrappers that montane and western slope Colorado was the province of mobile Ute Indian groups from the period of first contact with Europeans until these Native Americans were driven from their lands by the gold seekers of the mid-19th century (ca. A.D. 1500-1870). Groups representing other Native American tribes are known to have penetrated the mountain and plateau country of western and southwestern Colorado during the period of contact with European cultures, but before actual mass settlement (here termed the Protohistoric Period). For example, refugee Navajo groups apparently thrust into the northern tributaries of the San Juan River in the 18th century (Hester 1962), and even may have been in the upper San Juan drainage prior to the Pueblo Revolt (American Antiquity 1987:864); also, Hopi or other Pueblo peoples may have visited the Montezuma County area periodically since the exodus of their Anasazi kin in the 12th and 13th centuries (Errickson and Wilson 1985). According to the annals of Dominguez and Escalante, several socially distinct groups of Ute Indians might be encountered in southwestern Colorado in the late 18th century, especially small groups representing the Mouache and Tabeguache Bands. Descriptions of encounters with Ute groups preserved in the Escalante journals (Chavez 1976:17-33) led to a perception of small groups or individuals (at least during the summer season) pursuing hunter and gatherer mobile lifestyles with little investment in permanent architecture or cumbersome material goods. Groups representing the short-lived Navajo incursion probably practiced similar lifeways (at least in Colorado) and the post-Anasazi Pueblo visitors probably were equally as mobile and non-material in their methods.

In terms of archaeological remains, the Protohistoric Period in southwestern Colorado is somewhat of a dilemma. On the one hand, the archaeological record can be enhanced by historic accounts and records; but on the other hand, the archaeology of the Protohistoric remains a comparatively unknown area because of the less substantial material leavings of the Protohistoric groups compared to (for example) the rich record of the Anasazi, and the lesser attention this record has been given by archaeologists. Protohistoric Period archaeological deposits are difficult to interpret, because of the emphasis on small group organization and mobility and the lack of diagnostic

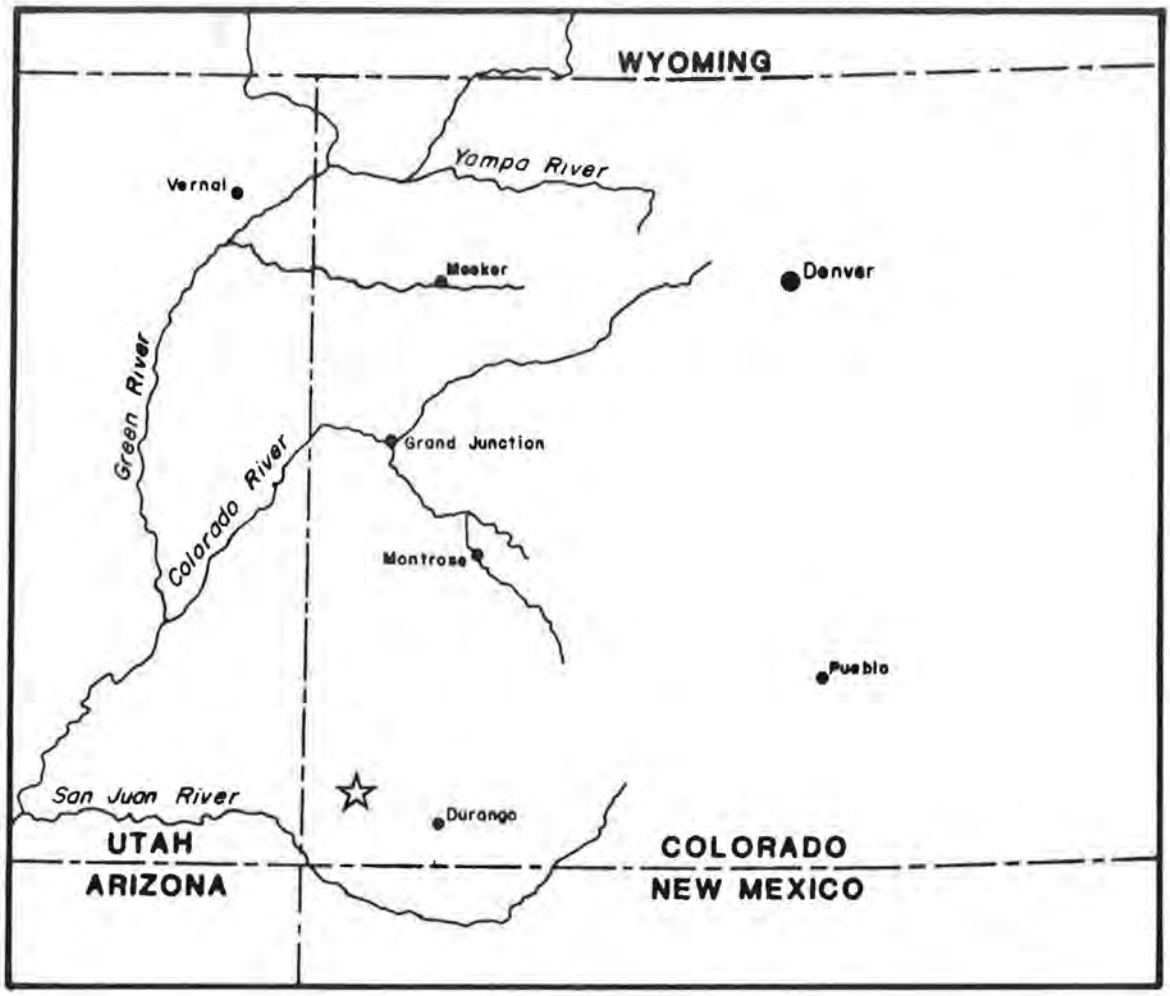
material culture inventories. Protohistoric groups often reused the same site locations as their Anasazi and Archaic Period predecessors, and it is often difficult to separate ephemeral Protohistoric deposits from earlier phenomena, especially when the archaeologist is dealing with "horizontally-expressed" campsites consisting of thin and spotty deposition over a wide area. Also contributing to the problem are modern site formation process phenomena such as casual collecting and stock grazing, which have further complicated the situation. Ute and other Protohistoric occupations therefore are part of the wider "sherd and lithic scatter site" (Gleichman and Legard 1977:155-388; here termed material scatter sites) problem which has bedeviled archaeologists studying Colorado archaeology since the advent of large scale contract archaeology in the 1970s. (This is a problem particularly germane to contract archaeologists as academicians have concentrated on the structural remains of the Anasazi or the romance of the Paleoindians - sherd and lithic scatters have thus been virtually neglected by the academic sector in "research archaeology.") To reiterate, the problem involved in investigation and interpreting material scatter sites is multidimensional and is closely linked to the avoidance of such sites prior to the 1970s by professionals. This has resulted in the lack of tested techniques to investigate such sites, as they do not conform to the traditional "layer cake" or architectural models of site structure presented in the classroom. Also, there are (or were until recently) few models addressing cultural behavior - site expression transitions for mobile simple material culture groups to assist in interpretation, and the longstanding prejudices regarding material scatters as relative data vacuums have been slow to disappear. Another aspect of the problem is the inherent complexity of material scatter deposits given their mostly horizontal expressions, scarcity of diagnostic cultural items and robust architectural remains, and their presumed long history of non-intensive use.

In the 1980s, Colorado archaeologists appear to have been able to recognize and define the extent of this problem, and are shedding themselves of the stereotypes perpetrated by academia. The Archaic, Protohistoric, and other prehistoric groups responsible for material scatter sites have been shown to possess many of the cultural accoutrements of their more romantic neighbors - houses and long range trade relations are good examples (Black 1987; Kleidon 1984) - and material scatter sites are no longer excavated as if they were layer cakes (we hope). One means of helping to unravel the material scatter knot, and incidentally learn more regarding the Protohistoric Period is by more in depth study of archaeological materials recovered from these contexts; that is, by better characterizing the variation in the material items from the period, we will be better able to interpret its archaeological deposits. This paper is such a study and attempts to further characterize Ute ceramics; the focus is variability in the temper of Ute sherds and related inferences regarding manufacturing practices. The ceramic sherds subjected to the analyses described here are part of the Dolores Archaeological Project (DAP) collections currently housed at the Anasazi Heritage Center near Dolores, and were recovered from assumed Protohistoric Period sherd and lithic scatter deposits by DAP field crews. The range of technological variation in Protohistoric Ute ceramics (temper, paste, vessel-building techniques) currently is poorly known. The attempt here is to present a characterization of the Dolores materials which can then be applied to a wider archaeological environment. Emphasis is placed on contrasting Ute characteristics with those of ceramics from other cultures

(the Navajo and the Anasazi) to provide guidelines for the archaeologist studying ceramics recovered from sherd and lithic phenomena. To provide a setting for the analyzed materials, a short summary of the Protohistoric Period in the Dolores area precedes the actual analysis.

DOLORES PROTOHISTORIC OCCUPATIONS

The DAP staff prepared several short summaries of the Protohistoric occupation of the Dolores River valley and surrounding vicinity (Kane 1985; Errickson and Dean 1985), but the focus of the archaeological research was the Pueblo I Anasazi (yes, we too were seduced by the romantic allure of these prehistoric Puebloans, but then 90% of the targetable resource were Anasazi architectural deposits). Thus, the available material is general in nature and does not contain any definitive descriptions or synthetic statements. Errickson and Wilson (1985) identified 17 sites in the project area with Protohistoric Period ceramics in either the survey or excavation collections. In addition, four Protohistoric site contexts without associated ceramics were identified during the course of the Dolores field program; these identifications were based on other material culture (European manufactured trade beads or other historic items) or radiocarbon dates. According to Errickson and Wilson (1985:Table 1), indeterminate or micaceous brownware sherds were recovered from 11 sites; these are interpreted as reflecting Ute occupations. Also, 174 Awatovi or Jeddito Yellowware sherds perhaps indicative of late Puebloan (Hopi) visitation or occupation were recovered from 10 sites. A plausible alternative explanation for the presence of Hopi sherds in this area is that they represent trade items in what are in reality Ute contexts (Schroeder 1965). Survey collections from three sites yielded both Ute and Hopi ceramics (Errickson and Wilson 1985:Table 1); these simultaneous occurrences could be used as evidence to support the latter theory. The locations of archaeologically documented DAP Protohistoric occupations are depicted in Figures 1 and 2. A review of the records for these sites confirms that, as expected, the associated surface expressions generally conform to the "material scatter" type (in only one instance was architecture noted by the survey crew) thought to be indicative of Protohistoric Ute and other hunting and gathering cultures. Errickson and Wilson note that 12 of the 17 Protohistoric sites are located along major canyon rims and that, with the exception of 5MT4683 (Singing Shelter), all are in topographically prominent locations. They also point out that for 11 of the recorded post-Anasazi occupations, Pueblo II sherds also were present in the survey collections (the Dolores area apparently was abandoned by permanent populations during the 11th century; thus, Pueblo II use of the Dolores area is thought to be transient in nature). It appears both Pueblo II and Protohistoric groups selected similar use or temporary habitation locations for their visits to the Dolores area. The locations they chose are relatively favorable in terms of vantage over the surrounding area; they may have been selected in terms of economic pursuits (sighting of game) or defensive strategies. Historic accounts suggest that local Ute groups camped at the mouth of Dry Canyon near the Grass Mesa Site and on the high plateau north of the Sagehen Arm of the reservoir (asterisked locations in Figure 1); however, although material scatter sites were recorded in both areas by DAP survey crews, no diagnostic materials of the Protohistoric Period were identified in the surface collections.



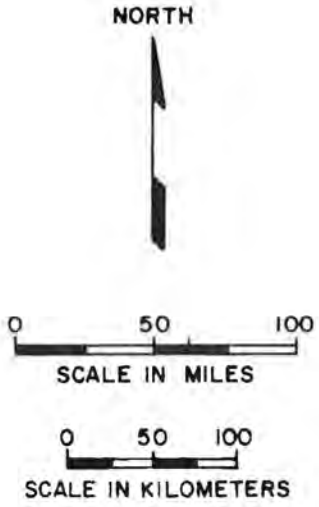


Figure 1. Regional map indicating approximate location (star) of area shown in Figure 2.

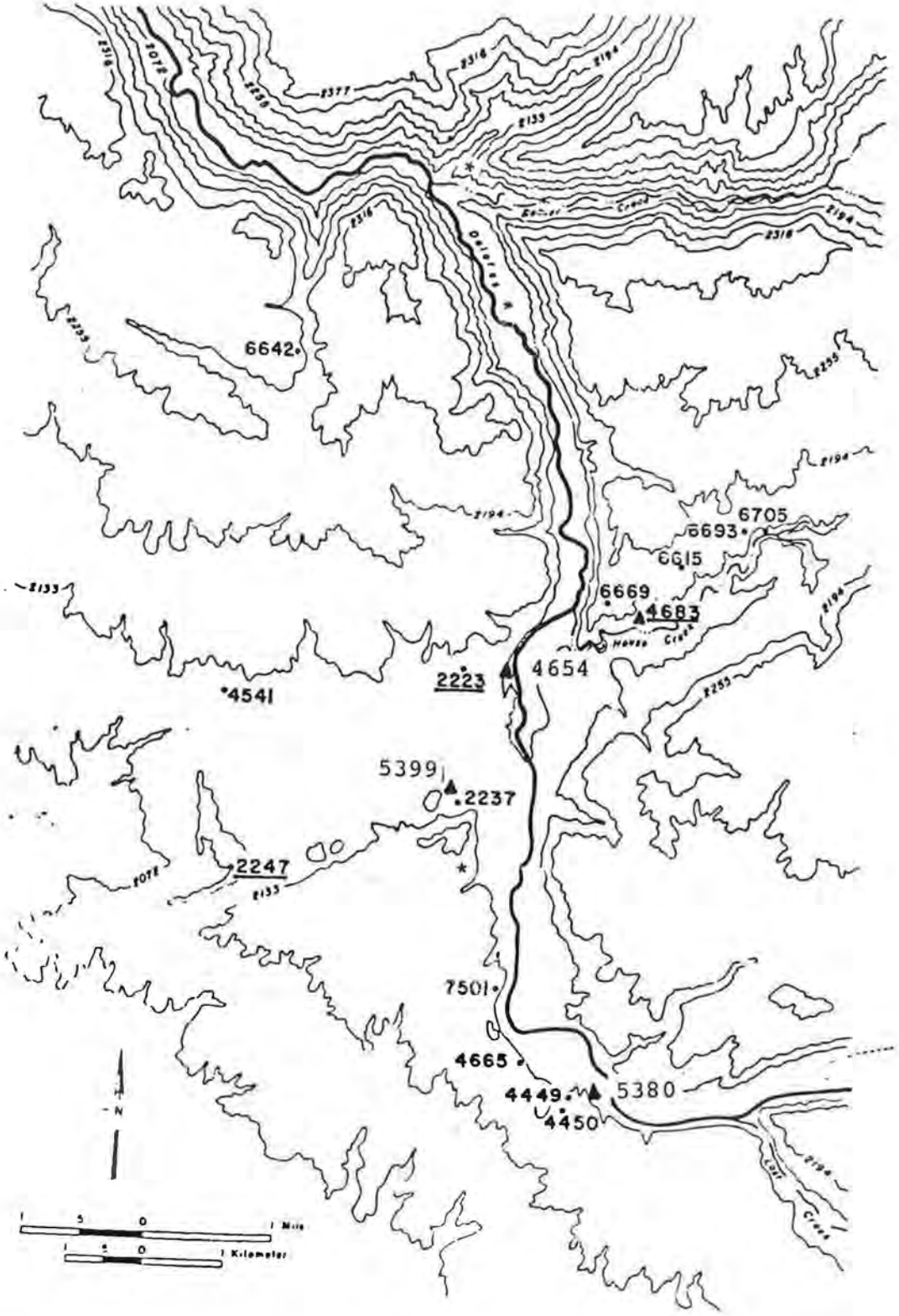


Figure 2. Locations of Dolores Archaeological Program sites yielding Ute or Hopi ceramics (adapted from Errickson and Wilson [1985: Fig. 2]). Four sites, including Lone Aspen Camp, are located beyond boundaries shown on map.

The Dolores excavation data base for the Protohistoric Period consists of two burials, disturbed deposits in two shelters, and a wickiup-type structure at a plateau top material scatter; the last mentioned occupation is actually north of the project area on a high forested upland; excavated contexts are indicated by a triangle symbol in Figure 1. The two interments were of single individuals accompanied by a wealth of material items. One was a deliberate crevice burial in the cliffs forming the southern rim of the main canyon (5380 in Figure 1). The human remains apparently were placed in the bottom of the crevice and covered with sandstone slabs. Items of personal adornment were recovered with the skeletal remains and included over 40,000 seed beads (probably the remnants of a decorated garment), several larger beads, five percussion caps, two lead balls, and three pieces of German silver. Ute Indians are reported to have practiced crevice burials and Ute ceramics were recovered from the surface of several sites located on the canyon rim to the south of the burial location. The archaeologist supervising the excavation suggested the site is Ute based on the context of the burial and the nature of the associated artifacts (Hovezak 1983:49). The second Protohistoric burial was discovered on the south margin of the Sagehen Flats area in the vicinity of the McPhee boat ramp (5399 in Figure 1). The burial consisted of the remains of an adult female and associated items that could be considered tools, adornment or the remnants of clothing (17,000 seed beads, several elk tooth pendants, one pair of shears, one metal knife, one nail, one awl or punch, a brush, and one piece of worked glass). The site did not yield any evidence of preparation of the area for interment, although the investigating archaeologist believed interment rather than accident is more likely given the condition of the burial (Chenault 1983:20); again, the characteristics of the associated items suggest the site is Ute in origin. Both sites probably date to the middle part of the 19th century based on the characteristics of the associated items.

The two possible Protohistoric shelter occupations were at Beaver Trap Shelter and Singing Shelter (4650 and 4683 respectively in Figure 1). The upper deposits at both shelter locations were characterized by extreme disturbance resulting from vandalism and use of the shelters by wintering cattle and sheep; hence, there is some question regarding the cultural affiliation of cultural phenomena at both sites. A single glass seed bead was recovered from deposits near the surface of Beaver Trap Shelter. Several use surfaces with shallow pits and hearths were investigated in the same part of the shelter, and a fragment of matting, perhaps indicative of a sleeping location was recovered from one of the surfaces. The best estimate is that these are in fact Protohistoric remains and not Anasazi (Hewitt and Harriman 1984). The situation at Singing Shelter is more obtuse; one possible Ute sherd was recovered from a disturbed context without surface or feature associations. The cultural affiliation of this sherd is in doubt, however, based on the results of the analysis described in this paper. Both shelters are very near rim top material scatters which contained Ute ceramics and, thus, the shelters may have been used coevally by Protohistoric groups camped on the canyon rims.

The inferred Ute occupation at Lone Aspen Camp (5DL444), apparently just another material scatter based on the surface indications, consists of the remains of a post-supported structure and an associated collection of artifacts (Kleidon 1984). The archaeological remains of the structure consisted of 27 postholes arranged in an oval outline; the postholes may represent a

wickiup-like form. The structure measured about 2.0 by 2.7 m with a floor area of approximately 4 m^2. The associated artifacts included over 100 pieces of debitage, several utilized flakes and unifacially flaked tools, one thin biface, one grooved abrading/grinding stone, one metate fragment, and two redware sherds. The last, of Anasazi origin, probably reflects mixing of deposits; an earlier Anasazi occupation of the same area is located about 20 m northeast of the structure. A radiocarbon date of 290 B.P. + 50 (A.D. 1660) was obtained from charcoal preserved in one of the postholes.

Thus, even given what originally appeared to be a landscape of material scatter sites and a research emphasis on Anasazi occupations, the DAP investigations yielded a variety of Protohistoric cultural phenomena. Notable are the proximity of canyon rim material scatters and use locations in the adjacent cliffs, the locational correlation between material scatter sites and canyon rims, the variety of material culture in the Protohistoric collections as a whole, and the identification of a Ute structure at a "material scatter." These results suggest that other regions might exhibit similar or greater variability once biases against material scatter occupations are overcome and an area is examined thoroughly. Some promising avenues for better identification of Protohistoric cultures also are suggested by the Dolores results; these include ceramic analysis (the analyses presented in the second half of this paper is an attempt to implement this approach), better knowledge concerning European trade artifacts, and better characterizations of Protohistoric structures and burial practices.

ANALYSIS OF CERAMIC TEMPER

Six sherds representing separate site contexts and attributed to the Ute occupation of the Dolores Project area (Errickson and Wilson 1985), were subjected to petrographic analysis. In addition, one unidentified rim sherd with a brown paste was also examined. Site locations represented in the analysis sample are underlined in Figure 1. Each sample was cut and mounted in such a way that the sherd could be viewed in cross section for better observation of construction techniques such as coil joins or orientation of temper particles.

Two different tempering agents were identified in the ceramics (Table 1). The tempering agent found in five of the assumed Ute sherds is a grus or decomposition produce originating from a gneissic granite. The mineral suite present in this material consists of quartz, twinned and untwinned feldspars, biotite and muscovite. Pyroxene was observed in all samples except 5MT2223-1. This sample also had a sparse microcline component. In all cases, feldspars in the samples showed some evidence of alteration. Although muscovite and biotite were observed in the same rock fragments, muscovite makes up most of the paste and may have been a natural constituent of the clay. Temper particles were angular to subangular and ranged from 500 to 1410 microns in size.

Sample 5MT2223-2, while sharing some compositional characteristics with the other sherds, had several attributes making it unique enough to classify as a separate temper type. This sample had less mica than the other sherds. Feldspar grains had a fresher appearance and contained pyroxene porphyritically rather than as loose grains as in the other specimens. This sample also contained sparse subangular fragments of a fine grained quartz arenite

Table 1. Selected Petrographically Analyzed Ceramics from the DAP Collections and Western Colorado

Specimen/ Site No.	Reference	Area	Temper Characterization
5MT2223-1	This paper	DAP	Gneissic granite grus
5MT2223-2	This paper	DAP	Gneissic granite grus/ crushed sandstone
5MT2247-1	This paper	DAP	Gneissic granite grus
5MT5701-1	This paper	DAP	Gneissic granite grus
5MT6693-1	This paper	DAP	Gneissic granite grus
5MT6693-2	This paper	DAP	Gneissic granite grus
5MT4683-1	This paper	DAP	Porphyritic hornblende andesite
5MT4665 F.S.0.007	Kamilli 1983	DAP	Gneissic(?) granite/sherd
Near 5MT2223	Hill n.d.	DAP	Gneissic granite
Isolated find	Huscher and Huscher 1940	Uncompahgre Plateau	Granite
5ME5866	Ms. on file, BLM, Grand Junction office and this paper	Uncompahgre Plateau	Andesitic rock

sandstone with silica cement. The temper and paste of Sample 5MT2223-2 may have been derived from the same source as the other sherds. Differences in composition may simply be a reflection of the range of variation within the source of the paste and temper.

Mica rich granite gneisses or highly micaceous clays are not available in the Dolores Project area (Leonhardy and Clay 1985). The nearest sources for similar material and its decomposition product lay to the east of the project in the Needle Mountains and along the upper Animas River (Barker 1969). Further afield, similar rock types outcrop in the Uintah Mountains and along faults in the Black Canyon of the Gunnison (Tweto 1980). However, without extensive sampling at granitic outcrops as well as further analysis to determine the range of variation present in the tempering agent, identification of the source of this material is not possible. The presence of this exotic rock type in the sherds sampled and the sparse occurrence of micaceous sherds in the Dolores Project area suggest that the ceramics were made elsewhere and brought into the project area by mobile groups.

The single unidentified brown sherd from 5MT4683 upon examination was identified as a misfired Mancos Corrugated rim sherd from a small vessel. 5MT4683 had a period of occupation that produced well fired ceramics of the same type (Nelson and Kane 1986). The sample was tempered using a phorphyritic hornblende andesite. This rock type contained quartz, untwinned feldspar, hornblende with minor magnetite some showing alteration to hematite. This material is a common constituent in ceramics and unfired pastes from prehistoric sites excavated by the Dolores Archaeological Project.

Two micaceous sherds from the DAP collections had previously been subjected to petrographic analysis, one from 5MT4665 and the other from near 5MT2223 (Kamilli 1983; Hill n.d.). Both of these sherds are quite similar to one another. They contain angular quartz, microcline, muscovite, and biotite. There is abundant muscovite in the paste of both sherds. In addition, to the mineral suite present in the sample analyzed by Kamilli the sherd contained a fragment of sherd temper. With the exception of the presence of crushed potsherds in the sample from 5MT4665, the tempering agent in these two sherds falls within the range of variation of the six sherds analyzed during this study.

Only two other sherds that have been attributed to the western Colorado Ute tradition have been analyzed petrographically, both from the Uncompahgre Plateau. One sample contained a mineral suite quite similar to the Dolores Project specimens (Huscher and Huscher 1940). There is apparently a greater percentage of quartz and less feldspar in this specimen than those from Dolores suggesting different sources for the ceramic temper.

The other sherd was collected from the surface of a "pot drop" site (5ME5866) by archaeologists from the Bureau of Land Management, Grand Junction office. This sherd is similar to ceramics described as Uncompahgre Brown (Buckles 1971). This sample was quite small and may not be as representative of the vessel as a larger one. The tempering agent in the sample was a crushed andesite containing a mineral suite consisting of untwinned feldspar, quartz, and sparse pyroxene and biotite. The paste of the sample contains fine rounded quartz grains and a large rounded chert/chalcedony pebble. These inclusions suggest that the clay for the vessel was derived from alluvial deposits.

SOUTHWESTERN COLORADO CERAMIC MANUFACTURING TECHNIQUES

While some aspects of pottery making, such as the percentage of temper added to clay, are requirements of the materials, many choices in the pottery making process are under the potter's control and, as such, are subject to behavioral variation. This variation is under the control of the knowledge base of potters within that society. Knowledge in any society is unevenly distributed. In modern Puebloan settings, learning the ceramic craft takes place through the direct transmission of knowledge from one individual to others within the potter's social network (Marriott 1948; Stanislawski 1978). The ceramic products of such a learning system should be fairly homogeneous since the raw materials would come from the same resource area and apprentices would tend to replicate the established potter's technique in order to achieve successful results. Innovation within such a system would result from changes made by established potters in their products in response to changes in the larger social system that affects the potters or their products. For example, as a result of Puebloan acculturation to the western market economy combined with the replacement of ceramics with metal cookware, the function of ceramics changed from a utilitarian to an artistic one. This has resulted in changes in vessel form and decorative style, a decrease in firing temperature and possibly modifications in productive organization (Granzburg 1973; Schroeder 1964). However, many of the manufacturing techniques that are used by modern Puebloan have not changed appreciably from prehistoric practices (Hill 1985a). This is most likely the result of an unbroken chain of apprentice/master teaching relationships using a single set of established techniques coming from the past to the present. Because of this face to face method of transmitting knowledge, it is possible to use the practices of ethnographic potters to create predictive models for identifying different aspects of cultural variability reflected in archaeological ceramic assemblages.

A source of technological difference between southwestern pottery making industries is the various methods of thinning the walls of a vessel. One method is by obliterating the joins between coils of a vessel using different scraping tools. The other method involves the use of a wooden paddle and stone, pottery anvil, or potter's hand to compress and join the coils.

Both of these techniques affect the paste of a vessel and are observable through petrographic analysis because of the physical properties of fired ceramics. One of the characteristics of clay is its plasticity. It is this property that allows clay to be shaped by pressure and retain that shape when released. This plasticity is due to the absorption of water by the clay particles. Water is ionically bonded to the surface of the platey clay particles allowing these particles to slide over one another. Ceramic temper is affected by the manipulation of the clay body as well. The firing process and the resulting mineralogical transformations stabilize the clay body but do not modify the shape into which it was formed. By recognizing this property of the retention of molding stress, it is possible to identify the forming process of the ceramic vessel through observation of the effects of those stresses.

The process of wedging the paste and rolling out coils serves to randomize the orientation of the temper particles. As coils are scraped down to obliterate the joins, force is only applied to the surface, thus having

little effect on the orientation of the temper particles (Habicht Mauche 1987). Thinning the walls of a vessel using the paddle and anvil method compresses the coils. This compression causes the clay and temper particles to take up a preferred orientation parallel to the walls of the vessel (Rieke and Chilingarian 1974; Hodges 1964).

Southwestern Colorado has been home to three different ceramic producing cultures: Puebloan, Navajo, and Ute. Puebloan and Navajo ceramic practices share the technology of thinning vessel walls through scraping. Puebloan potters utilize a ground potsherd or gourd tool for this purpose (Guthe 1925). Navajos use a bunch of grass or a corncob (Brugge 1964).

Petrographic analysis of Puebloan ceramics derived from the Dolores Project area and surrounding regions has shown that ceramic temper particles show no evidence of a preferred orientation. The presence of ceramic scraping tools in excavated contexts provides additional evidence of this technique of construction (Waterworth and Blinman 1986).

Ceramics bearing the characteristic marks of having been scraped by a corncob have been attributed to Navajo occupations. Petrographic analysis of samples of this type of ceramic from the La Plata Valley and Governador District also have a random orientation of the temper particles (Hill 1985b, n.d.).

Ute potters have been observed using a smooth wooden paddle and oval polished stone as an anvil in order to join and thin the coils of their vessels (Barber 1876). The seven micaceous sherds examined for orientation from the DAP collections have a preferred orientation of the temper particles paralleling the walls of the vessel (Figure 3). This suggests that the vessels were constructed using the paddle and anvil technique. Unfortunately, the sample from 5ME5866 was too sparsely tempered and small to determine the orientation of the temper particles. The large chert/chalcedony pebble was oriented parallel to the plane of the walls. If it were not, the pebble would have protruded through one or both sides of the vessel. The preferred orientation of the large temper particles in Ute ceramics has been previously noted and attributed to the use of the paddle and anvil (Huscher and Huscher 1940). Table 2 provides a comparison of the three major plainware ceramic traditions in southwestern Colorado.

Through observation of the variability of one step in the pottery making process, it has been possible to separate the Ute pottery making tradition from the Puebloan and Navajo traditions. Predictions made about the differences in the three ceramic producing traditions as derived from the ethnographic present can be used to explain textural variation in ceramic thin sections and show a strong historical continuity in each of the productive industries.

SUMMARY AND CONCLUSIONS

A summary of the Protohistoric occupation at Dolores was presented using the material scatter site expression problem as a point of reference. It was suggested that the common conception of material scatter sites as relative data vacuums may create analytical and interpretive biases. Based solely on survey information the Dolores area Protohistoric data base landscape could

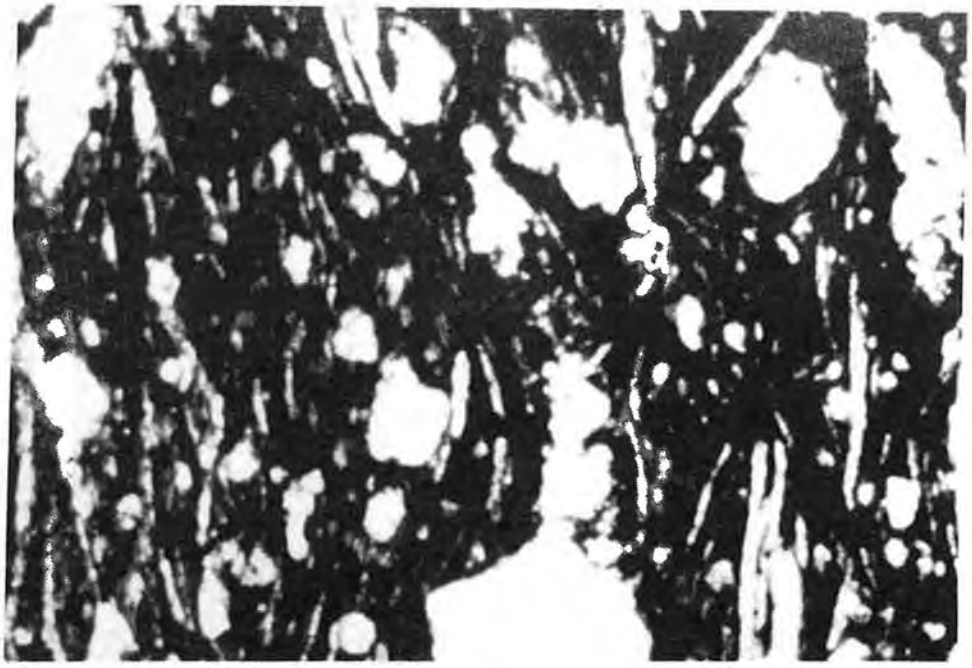


Figure 3. Photomicrograph of 5MT2247-1: alignment of temper particles in a Ute sherd. Minerals are muscovite and biotite. Angular minerals are untwinned feldspars. Exterior of the vessel is to the right. Plain polarized light. 40X.

Table 2. Comparison of Plainware Ceramic Traditions in Southwestern Colorado

	Ute	Navajo	Puebloan
Method of Thinning Vessel	Paddle and anvil	Coil and scrape	Coil and scrape
Method of Smoothing Surface	Stick or wet hand	Scraped with corncob	Scraped with smooth edged tool
Surface Appearance	Fingernail or fingertip impressed at neck, often in overlapping "fish scale" pattern(1)	Striations from corncob, applique, fingernail impressed, smooth surface(2) brushing	Plain, Neck Banded, Neck Corrugated, Corrugated(3)
Temper Orientation	Perpendicular to vessel walls	No preferred orientation	No preferred orientation

(1) Buckles 1971
(2) Brugge 1963
(3) Breternitz, Rohn, and Morris 1974

be interpreted as consisting entirely of material scatter phenomena. However, the subsequent excavation program showed this initial impression to be erroneous; in reality, considerable variability in site expression and material culture was documented, albeit the focus of DAP research was the Anasazi portion of the data base and not the Protohistoric occupation. Several promising avenues for better characterization of the Protohistoric period were suggested. One avenue, better characterization of ceramic industries, was explored in the second half of the paper. A petrographic analysis of a small sample of Protohistoric Ute sherds from the Dolores collections indicated Ute ceramics contain a distinctive suite of physical and technological characteristics that may be consistent for montane and western Colorado. These characteristics imply that Ute manufacturing traditions were different in several respects from the Navajo and Puebloan traditions manifest in the same area. A table is provided illustrating the distinctions among the ceramic manufacturing traditions; this should prove useful to archaeologists grappling with the problem of material scatter phenomena.

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UTE CULTURAL CHRONOLOGY

by

Alan D. Reed

INTRODUCTION

This paper represents an attempt to define the chronology of the Eastern Ute culture. The Eastern Ute, as defined by Stewart (1971), were those Ute living east of the Green and Colorado Rivers, occupying eastern Utah and western Colorado. Their historic homelands include portions of the Southern Rocky Mountains and the Colorado Plateau. The Eastern Ute are of course closely related to the Western Ute of central Utah, but also show affinity with other Numic-speaking peoples such as the Shoshone and the Southern Paiute. Linguistic and archaeological evidence suggests that prior to contact with Euroamerican culture, the Ute and the Southern Paiute were undifferentiated (Schroeder 1965; Goss 1968; Wormington 1955). Schroeder (1965) posits that the distinction between Ute and Southern Paiute emerged when those living on the Colorado Plateau and in the Rocky Mountains integrated the horse into their culture and interacted with the equestrian aboriginal cultures of the Plains. This interaction led to the incorporation of numerous Plains Indian traits into the Ute culture. The Southern Paiute more closely followed the cultural trajectory of their ancestors.

Historic records indicate that the Ute were the primary inhabitants of western Colorado and eastern Utah since the eighteenth century, when Dominguez and Escalante sojourned through the region and observed the Ute (Bolton 1972). The earliest historical references to the Ute begin in the 1620s (Stewart 1966; Cassells 1983), but do not establish the geographical extent of the people.

Historical records provide no clues concerning the origin of the Ute. To determine the origin of the Ute, Shoshone, and Paiute cultures in the intermountain west, researchers have turned to the analyses of linguistic and archaeological data. Citing Miller et al. (1971:161-163), Wright (1978:115) posits that lexico-statistical data indicate that a Proto-Numic language originated in the southern Sierra Nevada foothills and evolved into Numic by A.D. 1. The Numic language and component dialects then spread rapidly to the northeast across the Great Basin at approximately A.D. 1000.

As an independent test of the hypothesis of immigration by Numic-speakers, Madsen (1975) has studied the distribution of well-dated occurrences of Shoshone (Intermountain) Ware. His data appear to corroborate the linguistic evidence; Madsen (1975) traces the spread of Shoshone Ware from southern Nevada at approximately A.D. 1000 to the eastern Great Basin by approximately A.D. 1400. Wright (1978) seems convinced that the geographic distribution of Shoshone ceramics indicates immigration of peoples rather than diffusion of a technological innovation, but this appears to be open to question.

Many archaeologists now accept the hypothesis of immigration, and generally date the appearance of the Ute in western Colorado and eastern Utah to between A.D. 1200 and 1400 (Grady 1984; Reed 1984). There is another hypothesis concerning the origins of Ute culture that merits mention, however, and that is that the Ute developed in situ from indigenous groups. From data compiled during the Ute Prehistory Project conducted by the University of Colorado in the 1960s, Buckles (1971) concludes that there is sufficient continuity in material culture and lifeways between Ute and Archaic stage components to posit in situ development. Buckles (1971) detected no stratigraphic discontinuities in sites yielding Ute and earlier components. It appears that the problem of Ute origins is far from resolved.

IDENTIFICATION OF UTE COMPONENTS

Difficulties in tracing Ute culture history stem from a variety of theoretical and practical problems. On the theoretical side, there is the question of what, exactly, constitutes a Ute component. If Schroeder's (1965) interpretation is correct, and Ute, Shoshone, and Southern Paiute were undifferentiated prior to historic contact, then the question arises: "Is it tenable to even assert that there is such a thing as 'Ute prehistory'?" Perhaps not. It seems, however, that our primary goal should be to trace a cultural group, distinguishable from Archaic and Formative stage archaeological manifestations as well as from contemporaneous cultural groups in geographic areas beyond the homelands of the Numic-speaking peoples, throughout that group's course of cultural evolution. This paper will take such an approach, and will even designate prehistoric archaeological components attributable to the possibly undifferentiated Shoshonean group as Ute when they occur within the geographic range of the historic Ute.

On the practical side, many problems in studying Ute culture history result from a relatively small data base. Sites attributable to the Ute are generally rare, and are far outnumbered by Archaic and Formative stage sites (Grady 1984; Guthrie et al. 1984; Reed 1984). This pattern applies even to areas where there are historic accounts of large Ute habitation sites and to areas where numerous peeled Ponderosa pine have been recorded (e.g., Reed and Horn 1986). The paucity of recorded Ute sites has meant that relatively few have been subject to archaeological excavation. Better reconstructions of Ute cultural chronology will result as the data base is expanded. That relatively few recorded sites are attributed to the Ute is due to several factors. Foremost is the fact that the Ute were hunters and gatherers until their restriction to reservations in the nineteenth century. This lifeway has characterized aboriginal groups in occupying Colorado and Utah for many millenia; the shift to horticulture on the Colorado Plateau during the Formative stage lasted only a few centuries. Ute sites therefore tend to evidence settlement patterns and technologies similar to those of preceding groups, causing Ute and Archaic sites to appear much the same. A few artifact types can be used to differentiate Ute from Archaic sites, but these are generally present in low numbers on sites, and sampling error or illicit collection of surface artifacts can render many sites unclassifiable.

Ute components can be differentiated from Archaic and Formative stage components (but perhaps not from Southern Paiute or Shoshone components) by the presence of Uncompahgre Brownware ceramics, wickiups, metal or glass artifacts in certain archaeological contexts, and in some cases, particular

styles of projectile points and stone knives. Rock art may be attributed to the Ute when horses are depicted. Other artifact types commonly found on Ute sites, such as debitage, cores, most bifaces, scrapers, handstones, and slab millingstones, are presently of little value in determining Ute affiliation. The diagnostic artifact types are discussed below.

Uncompahgre Brownware

Archaeological and ethnographic evidence indicates that the Ute manufactured and utilized ceramic vessels. Ethnographic accounts of the Ute, generally compiled in the 1930s, differ on whether all historic bands manufactured pottery (see Smith 1974; Callaway et al. 1986; Stewart 1942). Some Eastern Ute informants, however, have told of observing pottery manufacture during their childhood in the 1850s through 1970s (Smith 1974:84). Ute pottery never appears to have been manufactured in great quantities, even in prehistoric times. Relatively few Ute pottery sherds occur on sites in western Colorado, and most of these occurrences represent single vessels (Annand 1967; Reed 1984). They do seem to be broadly scattered throughout western Colorado, however, suggesting that all bands may have manufactured ceramics at one time. Finds of Ute pottery have been reported in the Rocky Mountains (e.g., Black 1982; Benedict 1985a, 1985b; possibly Gooding 1981), in northwest Colorado (e.g., Creasman 1979; Gordon et al. 1983; Weber et al. 1977), west central Colorado (e.g., Annand 1967; Buckles 1971), southwestern Colorado (possibly Heikes 1979), and in eastern Utah (e.g., Lindsay 1976).

Annand (1967) and Buckles (1971) have provided excellent descriptions of Ute pottery. The vessels generally consist of jars with slightly flaring, wide necks, poorly to well-defined shoulders, and pointed to gently rounded bases. The rounded bases may differentiate Uncompahgre Brownware jars from the flat-based Shoshonean ware. The vessels were manufactured by coiling; coils were obliterated by rubbing (Opler 1939; Buckles 1971) or by paddle and anvil (Annand 1967; Huscher and Huscher 1940). Vessels were fired in a reducing atmosphere and are consequently dark gray to brown in color.

Chronometric dates found in association with Uncompahgre Brownware ceramics indicate that they have been manufactured in the study area since approximately A.D. 1400 to 1500 (Table 1). A specimen recovered at Graeber Cave along the Front Range of Colorado and dated to 630±75 B.P. (Nelson and Graeber 1984) was not included in Table 1 because its shape does not conform with typical Uncompahgre Brownware and because thermoluminescence analysis of a sherd yielded a modern date (Benedict 1985a:141). That no Uncompahgre Brownware sherds were chronometrically dated later than the mid-eighteenth century may be due to sampling error or may reflect decreased use of ceramic vessels.

Survey and excavation data indicate that Uncompahgre Brownware is found in association with a wide variety of artifact types. Sites yielding the pottery type often yield Desert Side-notched, Cottonwood Triangular, and small corner-notched projectile points, bifaces, scrapers, choppers, drills, manos, and metates. Metal and glass trade items also have been found in association with Uncompahgre Brownware sherds. A small number of sites with standing wickiups have yielded Uncompahgre Brownware sherds. Uncompahgre Brown appears to be a very reliable indicator of Ute affiliation when found

on sites in eastern Utah and western Colorado (Buckles 1971) because the type is restricted temporally to the post-Formative period and is frequently found in association with other artifact types attributable to the Ute.

Table 1. Chronometric Dates Associated with Uncompahgre Brownware Ceramics

Date	Calibrated Range	Type*	Reference
460±70 B.P.	A.D. 1385-1500	C-14	Jones 1986
420±70 B.P.	A.D. 1400-1525	C-14	Nickens and Associates 1986
390±50 B.P.	A.D. 1410-1630	C-14	Grand River Institute 1981
310±14%	-	TL	Benedict 1985a
330±14%	-	TL	Benedict 1985a
340±14%	-	TL	Benedict 1985a
320±14%	-	TL	Benedict 1985a
340±14%	-	TL	Benedict 1985a
210±14%	-	TL	Benedict 1985a
1741±v	-	TR	Dean 1974

* C-14 is a radiocarbon date
TL is a thermoluminescence date
TR is a dendrochronological date

Wickiups

Sites in the study area with standing wickiups can be attributed to the Ute culture with a high degree of confidence. Escalante described Ute "huts," which are probably wickiups, in western Colorado in 1776, and ethnographers indicate that all bands constructed wickiups and similar brush sweatlodges (Callaway et al. 1986). Wickiups were probably the only habitation structure constructed prior to Euroamerican contact. With the introduction of the horse in the seventh century, however, groups began to use tipis. Escalante observed both tipis and wickiups in use in western Colorado in 1776. As the Ute adopted an equestrian lifestyle and absorbed influences from Plains tribes, use of the wickiup decreased.

Several standing wickiups have been dated by tree-ring analysis (Table 2), none of which dates to the nineteenth century. While the sample is quite small, it suggests that the tipi had supplanted the wickiup by approximately A.D. 1800. That no wickiups antecede the eighteenth century reflects the surficial nature and fragile condition of wickiups. Caution must be taken when ascribing cultural affiliation to archaeological deposits yielding evidence of ephemeral, wickiup-like structures when the conical superstructure has disappeared, as similar structures were also constructed during the Archaic stage (see Horn et al. 1987).

Table 2. Dated Wickiups

Date	Site No.	Reference
1741+v	5MN41	Dean 1974
1750++vv	5ME469	Robinson 1979
1762++v	5MN42	Dean 1974
1763v	5MN42	Dean 1974

Standing wickiup sites are often characterized by low densities of surface artifacts. Artifact types observed on wickiup sites in the study area include Uncompahgre Brownware sherds, Desert Side-notched, Cottonwood Triangular, and small corner-notched projectile points, metal and glass trade goods, and a variety of bifaces, scrapers, choppers, drills, manos, and metates.

Metal and Glass Trade Items

Certain Euroamerican artifacts, when found in eastern Utah and western Colorado in association with wickiups, chipped and ground stone artifacts, or in crevices with human remains as grave goods, indicate probable Ute affiliation. Of course other aboriginal groups received Euroamerican trade items as well, so the artifacts by themselves are not strongly diagnostic. Open sites in the study area have yielded artifacts such as glass seed beads, glass pony beads, brass cartridges, metal ornaments, metal knife blades, and bridle and bit fragments. Burial sites, as will be discussed in a paper by Paul R. Nickens, tend to yield these and more elaborate artifacts, such as saddles, rifles, textiles, and metal utensils (Fike and Phillips 1984). Many of these trade items can be dated through historic research. Most of the glass beads, for example, date to the nineteenth century or later (Buckles 1971). The earliest well-dated Euroamerican artifact found on a Ute site is a brass knife blade found at a standing wickiup site in Montrose County (Buckles 1971). The wickiup was dated via tree-ring analysis to approximately A.D. 1762. Two other sites have yielded metal trade goods and very early dates, but the excavators doubt actual association (see Grand River Institute 1981; Martin et al. 1980), an opinion shared by this writer. Frequencies of Euroamerican trade items increase through time, especially so in the latter half of the nineteenth century. Aboriginal artifacts found in association with glass and metal trade goods include Uncompahgre Brownware sherds, small corner-notched, Cottonwood Triangular, and Desert Side-notched projectile points, large lanceolate, stemmed and side-notched projectile points, scrapers, bifaces, choppers, manos, and metates.

Desert Side-Notched Projectile Points

The General and Sierran subtypes of the Desert Side-notched series were manufactured after the end of the Formative stage in the intermountain west (Holmer and Weder 1980; Holmer 1986). Identical projectile points have a very broad geographic distribution (Holmer and Weder 1980), and so should be

used with caution when determining the cultural affiliation of archaeological components found in the study area. As shown in Figure 1, the subject projectile points are triangular in form, side-notched, and have concave or notched bases. They no doubt tipped arrows. Published dates are primarily from Great Basin sites, where they occur between A.D. 1200 and 1700 (Holmer 1986). Within the study area, Desert Side-notched points have been chronometrically dated between approximately A.D. 1400 and 1740 (Jones 1986; Benedict 1985a; Dean 1974). Artifacts found in apparent association with Desert Side-notched points include Uncompahgre Brownware pottery, Cottonwood Triangular, large corner-notched and small corner-notched projectile points, bifaces, drills, manos, metates, and small quantities of metal and glass trade items.

Cottonwood Triangular Projectile Points

Points in this type are small, unnotched, and have straight to slightly concave bases. Cottonwood Triangular points have been documented at Fremont sites, but generally date after A.D. 1300 (Holmer 1986) and are often regarded as diagnostic of Ute occupations (e.g., Gordon et al. 1983). While none apparently have been chronometrically dated in the study area, they were probably manufactured well into the nineteenth century. Cottonwood Triangular points recovered in eastern Utah and western Colorado have been found in association with Uncompahgre Brownware pottery, Desert Side-notched and small corner-notched projectile points, bifaces, scrapers, and metal and glass trade goods.

Shoshonean Knives

Artifacts in this category are leaf-shaped chipped stone bifaces, 8 to 10 cm in length, with relatively wide bases and tapering blades (Figure 1). Blade margins tend to be straight to slightly concave, and bases are often rounded. Frison (1978:80) writes that such knives evidence repeated bilateral sharpening of the blade margin, resulting in often narrow blades. It is reasonable, although unproven, that these tools were hafted, and that the blades were sharpened without removal from the haft, resulting in their distinctive shape. In Wyoming, these knives are regarded as fairly reliable horizon markers for late Shoshonean occupations (Frison 1978:80). Small numbers of these bifaces occur in the study area (Bradley et al. 1986; Newkirk and Roper 1983; Weber et al. 1977; Hibbets et al. 1979). While none have been chronometrically dated, associated artifact types indeed suggest Ute affiliation and include Desert Side-notched, Cottonwood Triangular, and small corner-notched projectile points, Uncompahgre Brownware pottery, choppers, and manos.

CHRONOLOGICAL CONSIDERATIONS

In this section, the temporal distribution of the artifacts identified as diagnostic of the Ute culture and the distribution of chronometric dates for the past several centuries will be examined. This analysis will hopefully reveal changes in Ute technology and demography that may in turn reflect important changes in other systems comprising Ute culture.

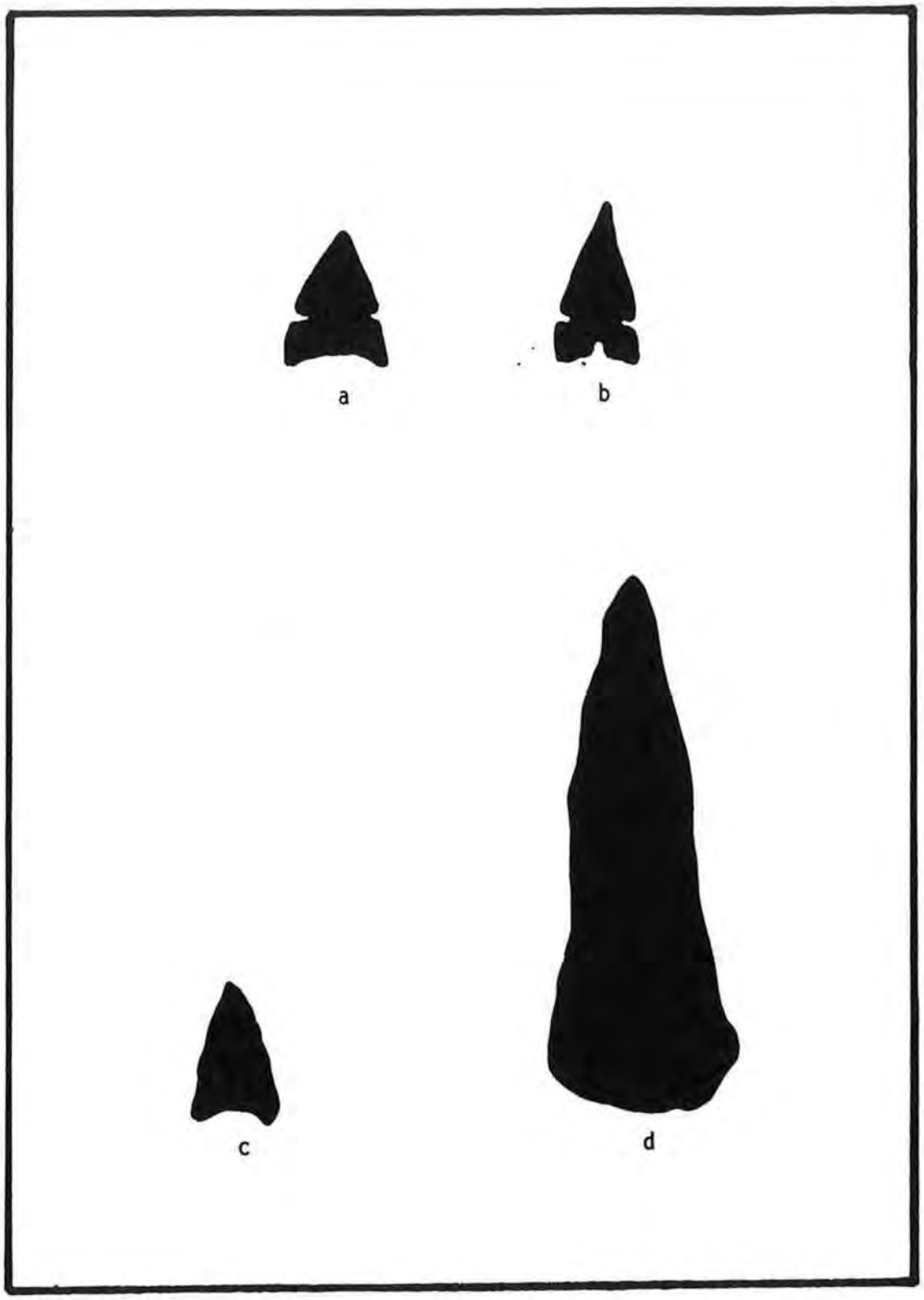

Figure 1. Chipped Stone Diagnostic Artifacts: a) General subtype Desert Side-notched point; b) Sierran subtype Desert Side-notched point; c) Cottonwood Triangular point; d) Shoshonean Knife.

The hypothesized temporal distribution of diagnostic Ute artifacts in western Colorado and eastern Utah is presented in Figure 2. The temporal extent of the various artifact types are based upon archaeological and, to a lesser extent, ethnographic data. In preparing Figure 2, radiocarbon dates were converted to a calibrated range, in which there is a 95% probability that the true calendar date is represented (after Klein et al. 1982). Because the calibrated range may span many decades, mid-points of the calibrated ranges were calculated so that individual calendar dates could be plotted. It is of course probable that the actual dates may vary by a few decades from the median date, but the effects of this bias are unlikely to significantly affect interpretations. As can be seen in Figure 2, Uncompahgre Brownware pottery has been chronometrically dated in the study area between roughly A.D. 1400 and 1750. Ethnographic accounts indicate that the ware was manufactured in small quantities into the late 1800s, so the type may have been manufactured for nearly 500 years. Wickiups are chronometrically dated between roughly A.D. 1700 and 1800, and probably extend far back into time. Historic records indicate some use of the wickiup into the nineteenth century. Metal and glass trade items appear in the area archaeological record after A.D. 1750 and increase in popularity in subsequent decades of Desert Side-notched points are chronometrically dated between approximately A.D. 1400 and 1700. Relatively few have been recovered in association with metal or glass trade items, however, suggesting decreased use of these projectile points after A.D. 1750. Cottonwood Triangular projectile points have not been chronometrically dated in the project area, but apparently have a long duration. Some have been found in association with historic trade goods, but like Desert Side-notched points, were probably supplanted by metal arrow points and firearms during the eighteenth and nineteenth centuries. Shoshonean knives appear to have a rather limited temporal distribution. While the sample size is small, none have been found in association with historic trade goods. They too may have been replaced with superior metal utensils.

Possible demographic trends were analyzed through the compilation of chronometric dates obtained in archaeological contexts within the study area. The dates, presented in Appendix A, are in some cases not associated with artifacts or features diagnostic of Ute affiliation. Only those dates occurring after A.D. 1200 were compiled. Radiocarbon assays were converted to calibrated ranges, and median dates of the calibrated ranges were calculated. These median dates were plotted in 50-year increments on the histogram comprising Figure 3. Three trends are evident. First, there are no median dates occurring between A.D. 1200 to 1250. It is possible that a hiatus is represented between the Formative stage occupation and that of post-Formative stage groups. Second, there is a reduction in the number of radiocarbon dates through time. Unless there is an unidentified bias toward excavating early sites as opposed to late sites, this trend may indicate a gradual decline in population. Finally, there appears to be a sharp reduction in the number of radiocarbon dates between A.D. 1550 and 1650. This writer is unaware of any radiocarbon dates between A.D. 1600 and 1650, and the two radiocarbon dates between A.D. 1550 and 1600 have standard deviations exceeding 100 years, and so may actually represent a point in time a century earlier or later. If this gap is substantiated by additional research, possible causes must be examined. One possible explanation may be smallpox epidemics, as this period coincides with Spanish settlement of northern New Mexico and probable increases in inter-cultural contacts. At present, however, this is purely speculative.

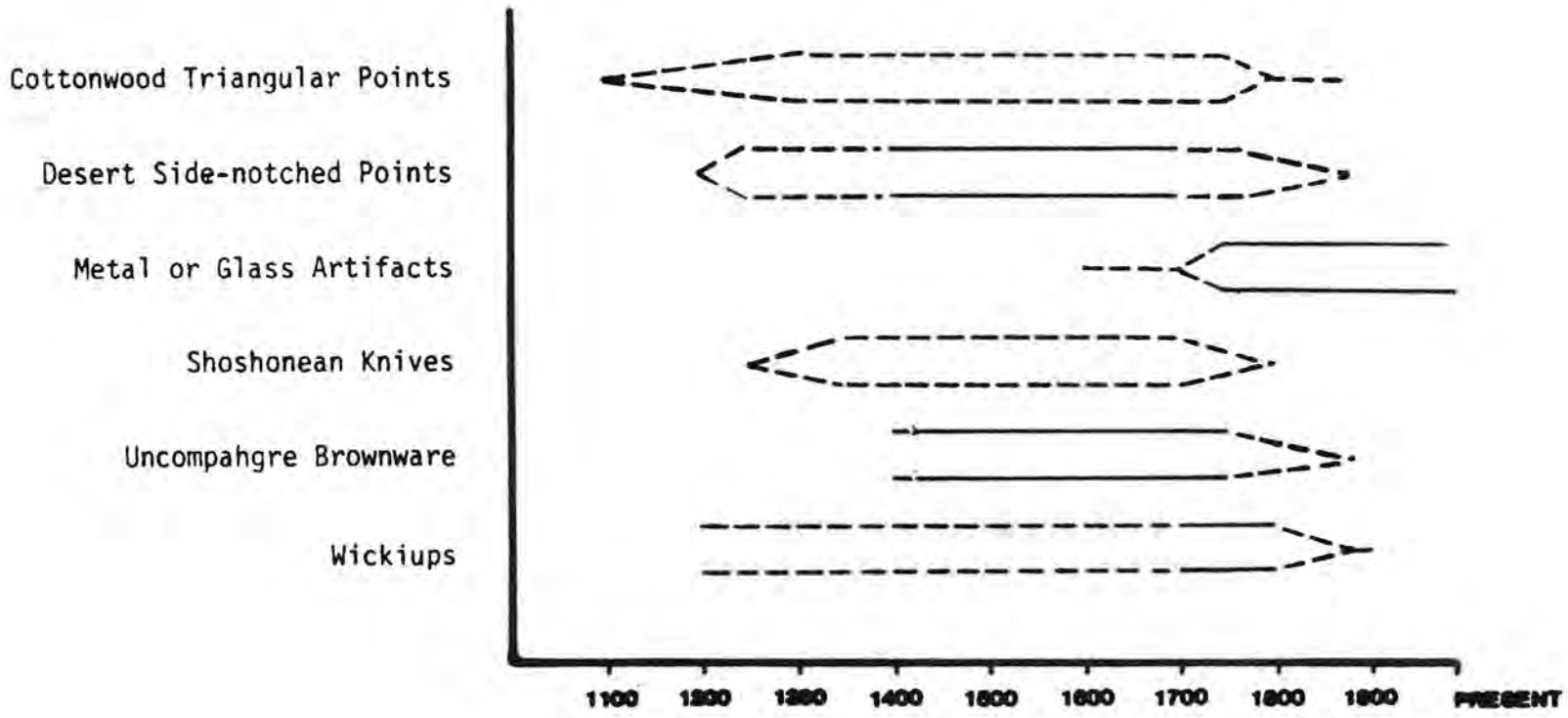

Figure 2. Temporal Distribution of Diagnostic Artifacts. Solid lines indicate temporal extent of chronometrically dated artifacts and broken lines indicate probable temporal distribution.

Figure 4 is a histogram of all chronometric dates, including radiocarbon dates, tree-ring-dated peeled trees and wickiups, and thermoluminescence dates. That the tree-ring dates cluster late in the record simply reflects the fact that neither wickiups or Ponderosa pine remain standing for very many centuries. The thermoluminescence dates cluster because multiple sherds, apparently representing only a few vessels from a single site, were analyzed.

PROPOSED UTE PHASE SEQUENCE

Ute occupation of western Colorado and eastern Utah appears to span five or more centuries. Archaeological and historical data indicate that the Ute culture has undergone important changes during those centuries. To provide reference for those periods of change, a phase sequence is herein proposed. Four phases are present; from earliest to latest they are the Chipeta, Canalla, Antero, and Reservation phases. The first three phases are named after prominent nineteenth century Utes.

Chipeta Phase (A.D. 1250-1400)

The Chipeta phase is perhaps the most tenuous of the proposed phases because of difficulties in determining affiliation with Ute culture. While the distribution of chronometric dates indicates a sizable population for the period of time, no diagnostic Ute artifacts have been chronometrically dated to this period. The Chipeta phase is thought to antecede the appearance of Uncompahgre Brownware, and of course Euroamerican influences are absent. Chipeta phase peoples were pedestrian hunters and gatherers. They probably manufactured Desert Side-notched, Cottonwood Triangular, and small corner-notched arrow points and may have used Shoshonean knives. The lifeway and material culture of Chipeta phase peoples was probably very similar to that of other Numic speakers inhabiting the intermountain west.

Canalla Phase (A.D. 1400-1650)

The Canalla phase refers to that period of time between the verifiable appearance of diagnostic Ute artifacts at approximately A.D. 1400 and the adoption of an equestrian lifeway. Canalla phase peoples were pedestrian hunters and gatherers who manufactured Uncompahgre Brownware ceramics, Desert Side-notched and Cottonwood Triangular projectile points, and Shoshonean knives. They apparently also manufactured small corner-notched projectile points and either manufactured or discovered and reused large projectile points. Canalla phase peoples probably lived in wickiups. Near the end of the Canalla phase, occasional trade items from Spanish settlements in New Mexico may have appeared, but probably had little effect on the culture. Populations may have been reduced near the end of the Canalla phase, possibly due to epidemics resultant from limited contact with Spanish settlers.

Antero Phase (A.D. 1650-1880)

The Antero phase represents a shift to a fully equestrian lifestyle and integration of Euroamerican trade goods into Ute material culture. This is the Ute culture of historical record and popular perception. It is generally distinguishable from the Shoshone and Southern Paiute cultures. The phase begins at approximately A.D. 1650, when the eastern Ute bands began obtaining

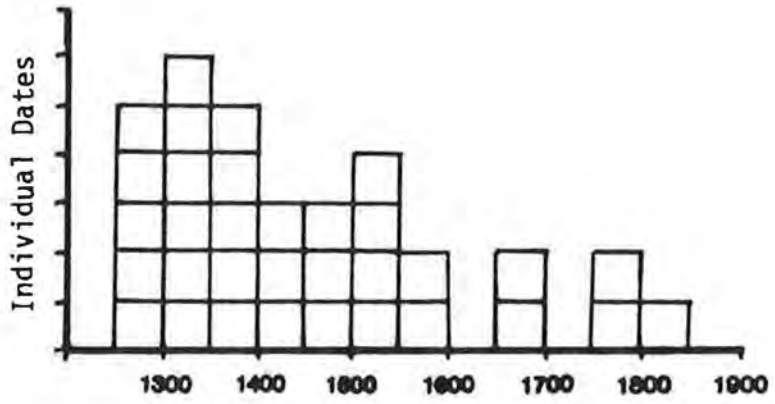

Figure 3. Distribution of Radiocarbon Dates.

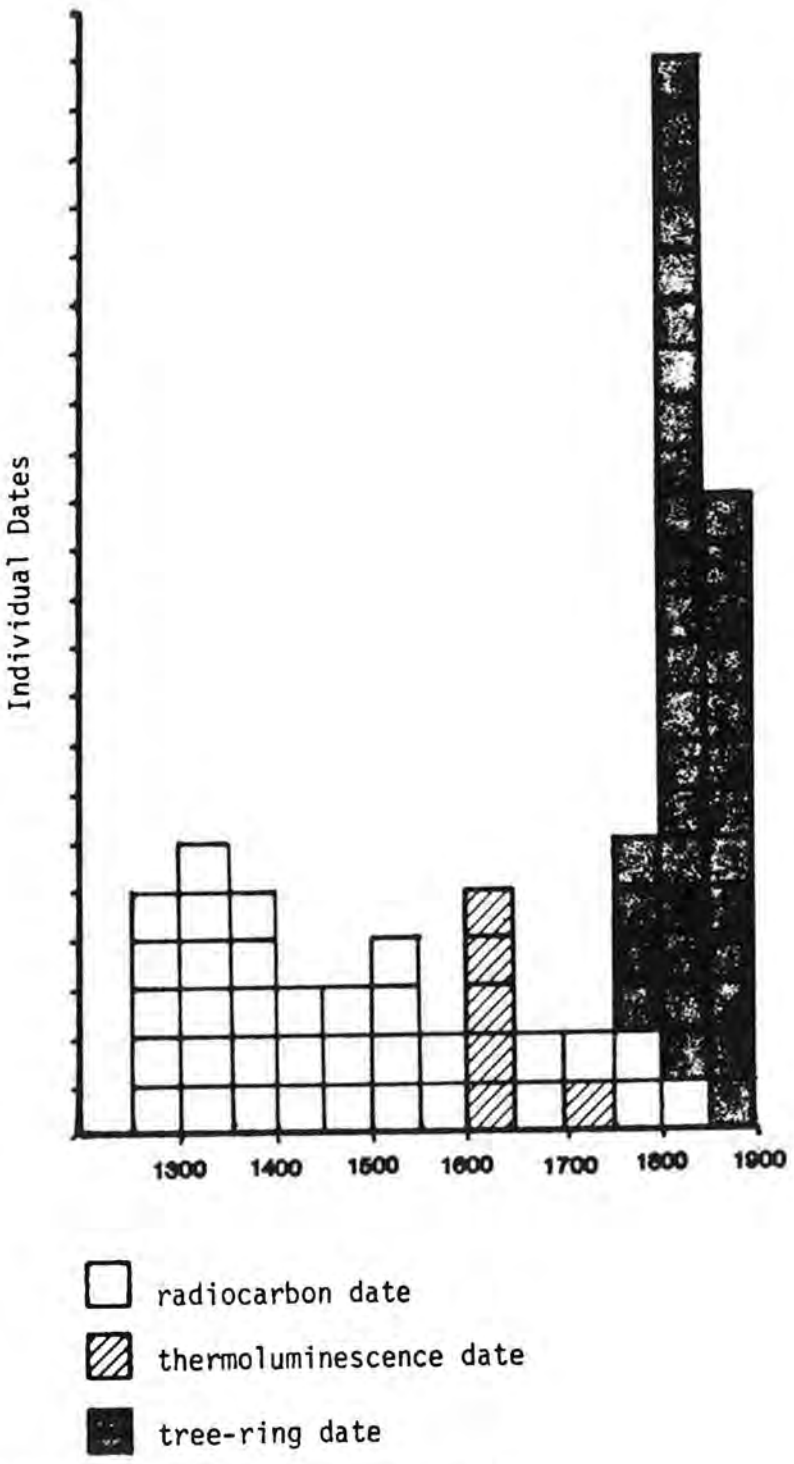

Figure 4. Distribution of Chronometric Dates.

horses and Euroamerican trade items, primarily from New Mexico (Pettit 1982). The flow of horses and trade goods increased rapidly following the Pueblo Revolt of 1680 (Stewart 1966). By the late 1600s, some Eastern Ute had procured sufficient numbers of horses to engage in raids upon Pueblos and Spanish settlements and to travel onto the High Plains in pursuit of bison. Contacts with other Plains tribes accelerated cultural change. Horses were obtained by most of the remaining Eastern Ute bands during the 1700s. Band size may have increased during this time through aggregation (Fike and Phillips 1984). Euroamerican trade goods became increasingly important in the 1800s, apparently supplanting many traditional artifact types. Tipis were adopted by equestrian groups. Hunting and raiding were important economic pursuits, although gathering also persisted. Near the end of the phase, scattered attempts at horticulture were documented (Stewart 1942).

Reservation Phase (A.D. 1880-present)

By approximately 1880, the Eastern Ute had been forcibly removed from nearly all of their traditional range in western Colorado and eastern Utah and were confined to reservations in the Uinta Basin in Utah and in southwestern Colorado. The reservations represent a small fraction of their traditional range. Confinement to reservations has been associated with profound changes in nearly all aspects of Ute culture, but these will not be further discussed.

SUMMARY

Much additional research is needed to better refine the chronology of the Ute culture. Questions concerning the origin of the Ute remain; possibilities include immigration from the Great Basin or in situ development from indigenous groups. Early archaeological components may represent an undifferentiated Shoshonean culture, with no demarcation between Ute, Shoshone, and Southern Paiute groups. Through time, however, distinctive traits begin to emerge. Uncompahgre Brownware appears in the archaeological record of the study area between approximately A.D. 1400 and 1500. Uncompahgre Brownware and certain other diagnostic artifacts, namely Desert Side-notched and Cottonwood Triangular projectile points and Shoshonean knives, persist throughout the archaeological record since approximately A.D. 1400, suggesting continuity of Ute occupation over a geographic area similar to that of historic times.

Identification of periods of major cultural changes has led to the development of a proposed phase sequence. The appearance of well-dated diagnostic artifacts in the archaeological record at approximately A.D. 1400 has led to the definition of the Canalla phase. A preceding, tenuous phase, termed the Chipeta phase, was formulated to describe components possibly related to the Ute culture between A.D. 1250 and 1400. The Antero phase, dating from A.D. 1650 to 1880, represents a shift away from pedestrian hunting and gathering and reliance upon traditional material culture towards a Plains Indian-like, equestrian lifeway. The period following the subjugation of the Ute by the U.S. government has been termed the Reservation phase. It is hoped that the definition of these phases will aid in our understanding of Ute chronology, by providing reference for periods of cultural similarity or by stimulating scientific debate.

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Appendix A. Post A.D. 1200 Chronometric Dates

Date	Calibrated Range	Median of Range	Site No.	Lab No.	Sample* Type	Context	Reference
670±270 B.P.	A.D. 880-1665	A.D. 1272	5RB804	UGA-3378	C-14		LaPoint et al. 1981
740±60 B.P.	A.D. 1215-1330	A.D. 1272	5RB699	UGA-2423	C-14		Creasman 1981
725±60 B.P.	A.D. 1220-1335	A.D. 1277	5RB699	UGA-2422	C-14		Creasman 1981
705±60 B.P.	A.D. 1230-1340	A.D. 1285	5RB817	UGA-2496	C-14		Gordon et al. 1979
720±90 B.P.	A.D. 1180-1400	A.D. 1290	5ST85	WSU-1760	C-14		Gooding 1981
675±80 B.P.	A.D. 1215-1410	A.D. 1312	5MT745	UGA-2749	C-14		Arthur et al. 1985
680±65 B.P.	A.D. 1240-1385	A.D. 1312	5GF134	DIC-2275	C-14		Gooding and Shields 1985
630±100 B.P.	A.D. 1235-1420	A.D. 1328	5ST278		C-14		Black 1985
630±70 B.P.	A.D. 1260-1405	A.D. 1333		I-12530	C-14		Nelson and Graeber 1984
620±45 B.P.	A.D. 1265-1405	A.D. 1335	5GF134	DIC-0	C-14		Grady 1984
600±50 B.P.	A.D. 1270-1410	A.D. 1340	42SA1194	WSU-2345	C-14	Leather Bundle	Benson 1982
580±55 B.P.	A.D. 1285-1415	A.D. 1350	5GF110	DIC-1658	C-14		Barnes 1985
520±55 B.P.	A.D. 1330-1430	A.D. 1380	5GF110	DIC-1657	C-14		Barnes 1985
510±70 B.P.	A.D. 1335-1435	A.D. 1385	5ME4971	Beta-14323	C-14		Nickens and Associates 1986
510±60 B.P.	A.D. 1335-1435	A.D. 1385	5OR182	Beta-1971	C-14		Nickens and Associates 1986
520±75 B.P.	A.D. 1280-1500	A.D. 1390	5RB748	UGA-3377	C-14		LaPoint et al. 1981
470±45 B.P.	A.D. 1350-1495	A.D. 1422	5ME901	DIC-0	C-14		Grady 1984

Appendix A. (Cont'd)

Date	Calibrated Range	Median of Range	Site No.	Lab No.	Sample* Type	Context	Reference
460±60 B.P.	A.D. 1385-1500	A.D. 1443	5RB699	UGA-3381	C-14		LaPoint et al. 1981
460±70 B.P.	A.D. 1385-1500	A.D. 1443	5GN41	Beta-3277	C-14		Jones 1984
420±70 B.P.	A.D. 1400-1525	A.D. 1462	5ME4957	Beta-14314	C-14		Nickens and Associates 1986
470±80 B.P.	A.D. 1325-1620	A.D. 1473	5GN41	Beta-5563	C-14		Jones 1984
430±90 B.P.	A.D. 1340-1645	A.D. 1493	5ST85	WSU-1751	C-14		Gooding 1981
390±50 B.P.	A.D. 1410-1630	A.D. 1520	5EA433		C-14		Grand River Institute 1981
375±90 B.P.	A.D. 1395-1660	A.D. 1527	5MF436	UGA-2734	C-14		Arthur et al. 1985
355±65 B.P.	A.D. 1415-1645	A.D. 1530	5RB699	UGA-2426	C-14		Creasman 1979
335±65 B.P.	A.D. 1420-1650	A.D. 1535	5MF435	UGA-2732	C-14		Arthur et al. 1985
400±150 B.P.	A.D. 1325-1800	A.D. 1562	5MF373	M-285	C-14		Crane and Griffen 1959
340±270 B.P.	A.D. 1230-1930	A.D. 1590	5GF130	DIC-0	C-14		Grady 1984
340±14%		A.D. 1610	5GA22	Alpha-491c	TL		Benedict 1985a
340±14%		A.D. 1610	5GA22	Alpha-462c	TL		Benedict 1985a
330±14%		A.D. 1620	5GA22	Alpha-491b	TL		Benedict 1985a
320±14%		A.D. 1630	5GA22	Alpha-462b	TL		Benedict 1985a
310±14%		A.D. 1640	5GA22	Alpha-491a	TL		Benedict 1985a
300±85 B.P.	A.D. 1415-1950	A.D. 1682	5MF435	UGA-2730	C-14		Arthur et al. 1985

Appendix A. (Cont'd)

Date	Calibrated Range	Median of Range	Site No.	Lab No.	Sample* Type	Context	Reference
265±75 B.P.	A.D. 1420-1950	A.D. 1685	5RB699	UGA-3388	C-14		La Point et al. 1981
210±14%		A.D. 1740	5GA22	Alpha-493	TL		Benedict 1985a
1741+v		A.D. 1741	5MN41		TR	wickiup	Dean 1974
1750++vv		A.D. 1750	5ME469		TR	wickiup	Robinson 1979
1762++v		A.D. 1762	5MN42		TR	wickiup	Dean 1974
1763v		A.D. 1763	5MN42		TR	wickiup	Dean 1974
80±80 B.P.	A.D. 1645-1900	A.D. 1772	5ME4971	Beta-14325	C-14		Nickens and Associates 1986
190±63 B.P.	A.D. 1620-1950	A.D. 1785	5ST85	UGA-1146	C-14		Gooding 1981
1793		A.D. 1793		C-65	TR	peeled tree	Martorano 1981
110±50 B.P.	A.D. 1655-1950	A.D. 1802	42GR1658		C-14		Bradley et al. 1986
1815		A.D. 1815		SD-42	TR	peeled tree	Martorano 1981
1816		A.D. 1816		SD-5	TR	peeled tree	Martorano 1981
1820		A.D. 1820		SD-35	TR	peeled tree	Martorano 1981
1820		A.D. 1820		SD-55	TR	peeled tree	Martorano 1981
1821		A.D. 1821		SD-59	TR	peeled tree	Martorano 1981
1822		A.D. 1822		SD-3	TR	peeled tree	Martorano 1981
1824		A.D. 1824		SD-31	TR	peeled tree	Martorano 1981

Appendix A. (Cont'd)

Date	Calibrated Range	Median of Range	Site No.	Lab No.	Sample* Type	Context	Reference
1826		A.D. 1826		SD-15-1	TR	peeled tree	Martorano 1981
1826		A.D. 1826		SD-15-2	TR	peeled tree	Martorano 1981
1826		A.D. 1826		SD-16-1	TR	peeled tree	Martorano 1981
1826		A.D. 1826		SD-48	TR	peeled tree	Martorano 1981
1827		A.D. 1827		SD-2	TR	peeled tree	Martorano 1981
1830		A.D. 1830		SD-13	TR	peeled tree	Martorano 1981
1831		A.D. 1831		SD-51	TR	peeled tree	Martorano 1981
1834		A.D. 1834		SD-26-2	TR	peeled tree	Martorano 1981
1838		A.D. 1838		SD-1	TR	peeled tree	Martorano 1981
1844		A.D. 1844		SD-20	TR	peeled tree	Martorano 1981
1844		A.D. 1844		B-4	TR	peeled tree	Martorano 1981
1845		A.D. 1845		B-7	TR	peeled tree	Martorano 1981
1846		A.D. 1846		SD-9	TR	peeled tree	Martorano 1981
1846		A.D. 1846		SD-26-1	TR	peeled tree	Martorano 1981
1854		A.D. 1854		B-5	TR	peeled tree	Martorano 1981
1858		A.D. 1858		B-1	TR	peeled tree	Martorano 1981
1859		A.D. 1859		B-3-1	TR	peeled tree	Martorano 1981

Appendix A. (Cont'd)

Date	Calibrated Range	Median of Range	Site No.	Lab No.	Sample* Type	Context	Reference
1859		A.D. 1859		B-10	TR	peeled tree	Martorano 1981
1859		A.D. 1859		B-6	TR	peeled tree	Martorano 1981
1861		A.D. 1861		B-8	TR	peeled tree	Martorano 1981
1864		A.D. 1864		SD-21-1	TR	peeled tree	Martorano 1981
1865		A.D. 1865		C-53	TR	peeled tree	Martorano 1981
1868		A.D. 1868		C-60	TR	peeled tree	Martorano 1981
1869		A.D. 1869		C-52	TR	peeled tree	Martorano 1981
1873		A.D. 1873		SD-44-2	TR	peeled tree	Martorano 1981
1874		A.D. 1874		SD-41	TR	peeled tree	Martorano 1981
1890		A.D. 1890		SD-21-2	TR	peeled tree	Martorano 1981

* C-14 refers to radiocarbon dates
TL refers to thermoluminescence dates
TR refers to tree-ring dates

UTE ROCK ART IN COLORADO

by

Sally J. Cole

INTRODUCTION

The specific focus of this paper is Ute rock art in western Colorado which is a historic homeland for Numic-speaking Ute Indian groups described as bands (Stewart 1966, 1976, 1982; Buckles 1968, 1971; Steward 1974; Marsh 1982). The Ute rock art under discussion is proposed to date from approximately A.D. 1600 until 1880-1882 when the Colorado Ute were settled on reservations. From the beginning of the research for this paper, it was apparent that the lack of temporal control for the Ute culture in Colorado would necessarily result in unanswered questions as to the development of Ute rock art and its aboriginal nature. Although scholars have proposed that Great Basin Numic-speakers (Shoshoneans) have been in the western Colorado area for centuries prior to historic contact (Stewart 1966, 1982; Buckles 1968; Smith 1974; Creasman 1981; Gordon et al. 1983), archaeological evidence for the presence of the Ute culture is dated between A.D. 1550 and 1774. In three recent reports, Creasman (1981:290), Gordon et al. (1983:196) and Liestman (1985:34) place Shoshonean peoples in the northwestern Colorado area approximately A.D. 1150-1600. All three writers point to evidence for contemporaneous or, at least, successive use of sites by Shoshoneans with Fremont. Creasman sees the protohistoric period in Canon Pintado National Historic District beginning at the end of the Fremont period and proposes a Ute or northern Shoshoni presence after A.D. 1550. Gordon et al. propose contemporaneous Shoshonean-Fremont occupation followed by a Ute culture in the Texas-Missouri-Evacuation Creek area after A.D. 1700. Liestman cites evidence for a Shoshonean-Fremont interface in Dinosaur National Monument between A.D. 1520-1600. Dean (1969:29-41) places a tree-ring date for a Ute structure in southwest Colorado between A.D. 1600-1774. Stewart (1966:48) reports the earliest historic reference to the Utes is a Spanish report dated 1623. Thus, it presently seems appropriate to focus on rock art dated after A.D. 1600 as the majority of research data indicate that earlier Ute culture, if present in Colorado, is poorly understood. Despite having better chronological control, there remain theoretical and practical problems with the identification and interpretation of Ute archaeology.

After historic contact, some aspects of Ute culture underwent drastic change related to the use of the horse and the adoption of Plateau-Plains Indian and Euro-American material culture and activities such as bison hunting and geographically far-reaching trading and raiding expeditions. However, Smith (1974) states that the use of horses by the Ute was not universal, and the veneer of Plains culture did not change the basic Great Basin culture which the Ute shared along with other Shoshone-speaking groups. "Mythology in all its aspects is equivalent among all Ute groups and is sharply marked off from the mythologies of the Plains tribes, the Apache, Navajo and Pueblo; all of the Ute mythology relates to the Great Basin area, as does most of Ute culture" (Smith 1974:19). Stewart (1966) notes that after A.D. 1776 the mounted Ute co-existed with Utes on foot providing a

contrast in life-styles and social structures for the historic Ute, that is, small family bands on foot in contrast with larger and more mobile bands or specialized groups on horseback. However, Steward (1966, 1982) proposes that the eastern Ute, in Colorado, had the horse earlier than the Ute or western Ute, and that the horse played a greater role in the development of Ute culture in Colorado. Thus, there are a number of problems in attempting to identify and interpret the Ute archaeologically. The expectations are for historic Ute material culture and rock art to exhibit a blending of aboriginal Great Basin and neighboring Plateau-Plains attributes and possibly some Southwest through time. However, this leaves unanswered questions concerning the nature and time depth of aboriginal Ute cultural in Colorado.

The goals of this paper are to review the literature and the site data base for Ute rock art in Colorado and examine the development of post-A.D. 1600 Ute rock art. Additionally, the paper will briefly address the question of the nature of aboriginal Ute rock art in Colorado. Finally, there will be brief interpretation of Ute iconography and symbolism and how rock art may have functioned in Ute society based on examination of material culture and ethnographic records of the Ute and other Great Basin Numic-speaking peoples and neighboring Plateau-Plains peoples. Some research problems in the identification of Ute rock art will be outlined below, but initially it is noted that two related conditions contribute to a general lack of knowledge, and, thus magnify the problems. One, is the abundance of aboriginal rock art in the area of study, spanning two thousand or more years; two, is a lack of adequate rock art documentation records and related archaeological information. Research materials for this study of Ute rock art include field data, site documentation forms, photographs, drawings, historic and ethnographic data and archaeological literature. The majority of the site data are thirty-five sites in west-central Colorado and the adjoining mountains described in a report prepared for the Bureau of Land Management (Cole 1987). Sites and site documentation records from northwestern and southwestern Colorado are also examined.

IDENTIFYING UTE ROCK ART

The development of style criteria which take into account subject matter and formal traits in combination with themes, all within the context of time and space, facilitates the identification of rock art typology and makes cultural associations and interpretations more meaningful. Obviously, it is also very helpful if there is associated material culture which can support the rock art record. Without such typology, the study of Ute rock art is subject to a number of problems including the following: (1) How to distinguish Ute rock art which does not exhibit obvious historic content; (2) how to distinguish Ute rock art from that of other culture groups utilizing western Colorado, specifically Plateau-Plains groups; and (3) how to distinguish Ute rock art which is imitative of that of other culture groups. Imitative rock art is suggested at some Colorado sites (Creasman 1982:7: Cole 1987), and the ethnographic record supports the making of such art by the Ute. Heizer and Baumhoff (1962:222) cite Ute information: "Often they imitated the older figures 'just for fun'." Fewkes reports that the Ute add red paint to (Anasazi) petroglyphs at Hovenweep Ruins (Wenger 1956:137). Given the mobility of the Ute, it is possible that imitated elements occur as widely separated forms. That is, forms from northwest Colorado may be imitated on the Uncompahgre Plateau and vice versa. Well-developed style

criteria within a known cultural region in combination with physical observations as to subject matter and relative chronologies can help overcome problems (2) and (3). However, even with the development and testing of style criteria, some questions will necessarily remain as style cannot compensate for situations where contemporaneous rock art is deliberately imitated, and, as time passes, the situation will become more confusing as to imitation of earlier art. Nevertheless, it is problem (1) which is of most concern in this paper as Ute rock art in western Colorado has traditionally been identified based on representations of aboriginal with historic subject matter and consistencies in petroglyph patination levels and the preservation of rock paintings or drawings. Research in Colorado has apparently produced a workable style framework for the identification of Ute rock art which has historic content or is clearly associated with the latter. Ute rock art outside of such context is much less well understood.

With the exception of Buckles (1971) work with archaeological sites in west-central Colorado, there has been no systematic effort by researchers to identify style and development of Ute rock art. Buckles has defined two Ute style categories, the Early Ute Indian Style and the Late Ute Indian Style, from type-sites in the eastern slope of the Uncompahgre Plateau. The style criteria have been tested (Cole 1987) in west-central Colorado beyond the boundaries of the original study and will be subjected to additional testing in this paper to determine if the styles are identifiable elsewhere in western Colorado. The Buckles' system and related research will be discussed in detail following a summary of other work relevant to identification of Ute rock art in Colorado. A number of researchers have described and analyzed possible Ute rock art and have variously discussed it as to subject matter, techniques, formal traits, patination levels, and general chronology.

McKern (1983) made a study of western Colorado rock art in 1924. In Shavano Valley in west-central Colorado and at Craig in northwest Colorado, McKern identifies and illustrates New Type and Old Type petroglyphs. The distinctions are based on observations of relative patination levels and superimpositions of petroglyphs of differing workmanship. At Shavano Valley, the Old Type petroglyphs are described as being uniformly deeply pecked, while the New Type have a variety of techniques employed. The New Type petroglyphs are described as different from the Old Type, having internal differences in subject matter, patination levels and techniques of workmanship. Horses with riders are included in the New Type rock art as is a scene showing bears climbing trees and linear abstract forms. The bears occur at site 5MN5 which was also studied by Jeancon (1926) and Buckles (1971). Horses are described as carelessly made but realistic in nature; illustrated forms are predominately solid rather than outlined. McKern (1982:86) concludes that all of the rock art can be attributed to the Ute, the Old Type to the pre-horse Ute and the New Type to the post-horse Ute who were subject to a number of cultural influences from neighboring Indian cultures. McKern notes that the petroglyphs occur near a historic Ute Indian trail. At Craig, Colorado, McKern describes Old Type grooved petroglyphs which are predominately straight-lined and include what is referred to as Shoshonean-like animal tracks. The New Type petroglyphs have more curved lines and include horses, geometric forms, a shield-figure (an anthropomorph with a large shield covering the mid-portion of the body), a possible masked anthropomorph and a bear pawprint. The horses are noted to be different than the usual

Shoshonean animal forms, but a man on horseback is said to "show all the peculiarities of late Ute work" (McKern 1983:98). Forms illustrated are predominately outlined, and horses include one elongated figure and one which is distorted. McKern concludes that there are similarities between Craig and Shavano rock art types, but there is a lack of consistency between forms judged to be old and new at the two locations. Again, McKern proposes that the two types of rock art are products of the Ute, pre- and post-horse; "Both old and new types are probably Ute products, but one is a conservative product of a locally peculiar self-sufficient culture while the other is the progressive product of an expanding assimilating culture" (McKern 1983:102).

Jeancon (1926) illustrates and describes rock art in western Colorado including Chavanaux (Shavano) Valley and Gunnison River sites examined by McKern (1983) and Buckles (1971). Jeancon does not attempt to determine rock art styles or relative chronologies for a variety of petroglyphs but generalizes that most of the rock art is relatively recent and is probably of Ute origin. In Shavano Valley a probable Ute Bear Dance scene is discussed (see description of site 5MN5, Late Style Ute rock art, below), and an equestrian form is illustrated. Petroglyphs from the Monte Vista District showing equestrians, firearms, lances, game animals and a row of linked anthropomorphs are attributed to either Ute or Apache based on the content and the proximity of the site to historic Ute and Apache trails. Other rock art examined by Jeancon from Shavano Valley, the Gunnison River and La Sal Creek Canon has no historic content and has been elsewhere attributed to prehistoric Uncompahgre Plateau and La Sal Anasazi populations (Buckles 1971; Cole 1987). Jeancon quotes Southern Ute Indians, Buckskin Charley and Nanice, as identifying an abstract motif occurring at Shavano Valley and the Gunnison River as symbolic of Spider Woman, a mythic personage for various Southwestern Indian peoples. The motif is described as consisting of a vertical line crossed transversely by horizontal lines of different lengths (Jeancon 1926:43-44).

Huscher (1939) examines twenty-seven rock art sites of the Uncompahgre Plateau and observes that two or more petroglyph sites were used during the horse-culture period, probably by Utes. Huscher notes that narrative is probably intended in a scene showing guns, shield-figures and horses (presently designated 5ME101). Huscher illustrates stick-like horses and riders, outline elongated and incomplete horses and riders with trailing headdresses (Huscher 1939:Plate I). Petroglyphs described by Huscher are solid as well as outlined and are pecked, abraded and incised. An incised and abraded horse image is compared with tipi-wall paintings of the Plains Indians and is noted to be different from other images in the region and more recent than nearby stick-like horses. "Huscher maintains that earlier Ute depictions of horses are pecked, and more recent examples are incised" (Gordon et al. 1983:124). In a 1940 article, Huscher and Huscher report having found lightly pecked and scraped bear-track petroglyphs a few feet from a Ute wickiup.

Wenger (1956) describes and illustrates rock art occurring along Douglas Creek in northwestern Colorado and observes that the Ute occupied the area of study. Wenger proposes that there is a cultural difference between rock paintings and petroglyphs as the latter include representations of horses missing in the paintings. The paintings are generally attributed to the

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Rockwell (1956) figures petroglyphs from Shavano Valley in west-central Colorado which he titles Ute rock drawings without explanation. The petroglyphs (from sites 5MN27 and 66) do not have historic subject matter and are discussed by Buckles (1971) and Cole (1987) as part of prehistoric Uncompahgre Plateau rock art.

Creasman (1981, 1982) has examined protohistoric rock art in Canon Pintado National Historic District which includes some sites studied by Wenger (1956). Creasman proposes that the protohistoric rock art, including petroglyphs, rock paintings and drawings, is of either Ute or northern Shoshoni origin. The rock art is assigned to three illustrated styles termed elongated, realistic and shield-figure motif; Creasman does not propose a relative chronology for the three styles but notes that the elongated style is more often executed with pigment while the realistic style is petroglyphic. Shield-figures are drawn, and Creasman (1982:7) observes that some appear to be copies of prehistoric forms. Elongated linear horses and relatively small simple abstracted riders are typical of the elongated style; overall greater detail and less exaggeration in the size of horses are typical of the realistic style, and headdresses are exhibited in both elongated and realistic styles. Creasman illustrates a row of five linked anthropomorphs with headdresses and striped bodies. The forms are realistic and apparently occur in association with elongated style horses and riders (Creasman 1982:Fig.

11). Shield-figures are linear and outlined and may be contemporaneous with the realistic style based on distinctive circular hooves shown on a horse ridden by a shield-figure and similar hooves shown on the realistic style bison (Creasman 1982:Figs. 8, 10).

Toll (1977) reports rock art of the lower Dolores River corridor and discusses what he terms aboriginal figures of the historic period. At two sites, 5ME165 and 5MT2414, Toll sees a relationship with the Early Historic Ute Indian Style described by Buckles (1971). Site 5ME165 is illustrated and includes charcoal drawings and abrasions showing a relatively large bison, abstracted horses with riders and simple anthropomorphs. Toll discusses rock art that three additional Dolores River sites which is possibly historic in origin, but the sites are without historic content; one of the sites, 5MN440A, is illustrated and is composed of groups of fine incised lines. Toll notes that the Ute continued to use the vicinity until 1882 (Toll 1977:107).

Gordon et al. (1983:210) state that proto-historic/historic aboriginal sites comprise a major component of cultural resources in Texas-Missouri-Evacuation Creek, and projectile points and pottery with Numic origins are present. Rock art near the study area at 5RB915 is described as showing a bison-hunting scene and equestrians. Three sites, 5RB817, 1553, 1570, are described as petroglyph/rockshelter sites of protohistoric affiliation. The rock art is not illustrated.

La Point (1987) discusses recorded rock art in the Little Snake Resource Area of northwestern Colorado and lists a possible eleven sites associated with the historic period; the rock art is not illustrated. La Point gives radiocarbon dates of A.D. 1575 and A.D. 1615 to support the presence of protohistoric groups in the study area and notes that the Shoshonean pottery has been identified. The Ute reportedly shared the area with the Comanche-Shoshone prior to A.D. 1750 and dominated the area south of the Yampa River and the crest of the Uinta Mountains. La Point (1987:208) records an interpretation by Omer Stewart of rock art at 5MF281 on the Yampa River "as possibly marking a boundary between the Shoshone to the north and the Ute to the south."

As stated earlier, Buckles (1971:1065-1084) has identified two styles of historic Ute rock art on the Uncompahgre Plateau in west-central Colorado, the Early Historic Ute Indian Style and the Late Historic Ute Indian Style. The two styles constitute a tested framework for the identification and interpretation of Ute rock art in western Colorado. Both styles are primarily representational rather than abstract in subject matter and include a variety of techniques of manufacture including rock paintings and incised, abraded, pecked and grooved petroglyphs. The Early Style is dated from approximately the time the horse was accepted by the Ute until A.D. 1830, the approximate date of the establishment of the Roubidoux trading post on the Gunnison River. Smith (1974:19-20) suggests that the Ute were in possession of the horse by A.D. 1640. The Late Style is dated from after A.D. 1830 until A.D. 1880. Buckles has confined his style/chronology classifications to life forms associated with historic subjects such as horses, tipis, guns, dated artifacts, etc. This is an important issue insofar as potentially a large segment of Ute rock art is without an identity framework and is a research problem. In the case of Buckles' data, it is possible that the Ute

rock art without historic associations is included in the prehistoric Uncompahgre Style 1 which he acknowledges has formal similarities; the prehistoric Style 1 is dated to just before the historic period. Buckles reports that he has compared Uncompahgre Plateau historic rock art with that occurring elsewhere in adjacent parts of Colorado and Utah and has determined that the Uncompahgre rock art compares favorably.

EARLY AND LATE UTE INDIAN ROCK ART STYLES

Buckles (1971) describes and illustrates Early Style art at six Uncompahgre Plateau sites; all of the art is petroglyphic. Subject matter of the Early Style includes anthropomorphs on foot and mounted, abstract symbols associated with equestrians, horses, elk or deer, bighorn sheep, bison, bows and arrows, a bird, animal tracks including bird and bear, a shield-figures and a bola-like device, possibly a poggomoggon (rawhide covered stone with a wooden handle or a string handle tied to the wrist [Stewart 1976:269]). Anthropomorphs and quadrupeds of the Early Style are often linear and highly abstract and may appear as distorted forms. The figures occur outlined as stick-figures, and the majority are males based on appearances and activities represented such as hunting and warfare. Quadrupeds, especially horses, tend to be unnaturally elongated and may be disproportionally larger than the riders; quadrupeds are more often full-bodied and detailed than anthropomorphs. Some details of horse tack and bridle decorations are shown. Riders and other anthropomorphs show details such as simple shields and lances being held and linear "feather" headdresses, although individualism is not stressed. Bison shown as being hunted are often depicted as far larger than the equestrians which pursue them. Buckles observes that this may reflect the awe felt by early Ute hunters. Narrative is implied in some Early Style scenes of bison hunting, but the compositions are generally small and loosely controlled and there is a mixing of themes and techniques in panels. Themes of the rock art noted by Buckles include group aggression, some indication of concerns for individual prestige shown by expressions of personal religious symbolism, buffalo hunting, and rapid culture change from the prehistoric period.

Buckles (1971) illustrates and describes Late Style petroglyphs and paintings at four Uncompahgre Plateau sites. The Late Style has pronounced continuities with the earlier historic Ute art and shows the influence of an Euro-American art tradition which emphasizes controlled compositions, realism and naturalism in life forms. Subject matter of the Late Style includes anthropomorphs, decorated shields, shield-figures, horses and equestrians, tipis, bears, trees and associated animal tracks. Late Style rock art is characterized by a sense of realism and, occasionally, naturalism as opposed to the abstract nature of earlier Ute art. Anthropomorphic and zoomorphic figures of the Late Style show motion and details of clothing, tack, decoration, physical attributes and lifestyles. In contrast with the Early Style, figures are generally full-bodied and have more realistic shapes; individualism is stressed by showing personal attributes. Compositions appear more tightly controlled, and a sense of narrative is heightened in the Late Style. Buckles notes similarities between Late Style art and that of the Plains and suggests that Plains culture has influenced the Ute to express individualism. Themes of the Late Style include the expressions of male prestige, individualism and aggression. An example is in a rock painting composition at 5DT1 (Figure 1) where four realistic and detailed horsemen wearing headdresses

surround a "feathered" shield-figure with a bird-track symbol on the shield. The scene may record an encounter between mounted Ute and a pedestrian warrior from the Plains. The bird-track may be a personal power symbol for the warrior, something present on historic Plains shields. Another Late Style composition illustrated by Buckles occurs at 5MN5 (Figure 2) where a petroglyph scene related to the Ute Bear Dance legend is exhibited. There, three bears are shown as if climbing; two bears are climbing trees and are less realistic than a third which is carefully executed and shows stylized pawprint-like paws. The scene appears to have been made by at least two artists; the less realistic bears and associated lines and a "walking" anthropomorph may date from an earlier period. Buckles (1971:1072-1074) (also see Jeancon 1926) reports that the imagery is "duplicated in a painting of the Ute Bear Dance may by an Uncompahgre Ute Indian for a Mr. Tom McKee... The painting is said to depict a scene in the Bear Dance legend." The McKee painting is dated to A.D. 1900. The Northern Ute (which include the post-1880 Uncompahgre Ute band) say that a hunter "saw a bear dancing back and forth to a pine tree, and on his return home the hunter taught his people to do the dance" (Smith 1974:221).

Cole (1987) has tested Buckles' style criteria in an analysis of rock art at thirty-five sites in an expanded west-central Colorado region (Figure 3). The study sites include rock art previously analyzed by Buckles (1971), McKern (1983), Huscher (1939) and Toll (1977). Twenty-six of the thirty-five study sites exhibit or are associated with historic subject matter, of those, Early Style rock art is identified at twenty sites and the Late Style at eight sites (Figures 4-8; Plates 1-4). Significantly, the Buckles' style criteria were applied to rock drawings at site 5GF1339 (see Figures 3, 9) which shows complex scenes including a battle scene with equestrians, rifles, anthropomorphs with headdresses and shield-figures. Cole and Mahaney (1986) in separate analyses have determined that, overall, the rock art at 5GF1339 does not fit the Buckles' Ute style criteria despite a general similarity in subject matter and theme as well as the location in known Ute territory. The drawings at 5GF1339 are viewed as being culturally distinct from those of the Ute and are stylistically more compatible with post-A.D. 1750 biographic complex rock art of the northwestern Plains described by Keyser (1977, 1987) as rudimentary picture-writing. The battle scene at 5GF1339 fits the criteria of Biographic Style compositions insofar as it exhibits historic Plains subject matter with hoofprints and dashed lines indicative of the route of travel by various groups and lines possibly indicative of terrain changes and relationships between parties in portions of the composition. Such details in combination with apparently stockpiled rifles and X's, which may indicate horses stolen or coup counted (Mallery 1972(1):273-228;Fig. 57a;(2):Fig. 936) are not reported for Ute rock art. The art has the style and content of hide paintings and ledger drawings. Drawings at 5GF1339 may record a battle between a neighboring Plains group (Shoshone-Comanche?) and local Utes.

With an expanded data base, additional subject matter and techniques for the Early and Late styles are observed, and insights are gained into the relative chronology of the two styles. Transitional forms and compositions are noted. Also, site locations are expanded from the eastern Uncompahgre Plateau to include the diverse environments of the Dolores River Canyon and alpine Flattops Mountains. In the latter location, Ute rock paintings and drawings occur in caves (Plates 4A, B). Subject matter of Early Style Ute rock art in addition to that described by Buckles (1971) includes plant-like

forms, lizard-shaped anthropomorphs, anthropomorphs wearing brimmed caps, visors or hats, a high pommel saddle, pieces of horse tack, "feather" or scalp decorations on horse bridles and manes, abstract rake and ladder forms, possible lariat, eared headdresses, two-horn headdress, "tool" grooves, crosses, vulva symbols, hands or paws with arms attached, a bear personage or a person wearing a bearskin, abstract bottle-shaped anthropomorphs with interior linear decorations and headdresses and a "feathered" lance or staff. Associated animal tracks include cloven hoof prints, bird tracks and bear pawprints; some of the latter are tripartite. Abstract one-pole ladder forms (Figure 5B) are similar to those described by Jeancon (1926), above, as symbolic of Spider Woman. In addition to previously described petroglyph techniques, stipple-pecked and scratched images occur at a variety of locations; charcoal and red ochre paintings and drawings are also reported.

At three sites, 5DT64 (Figure 8), 5FG2 (Plates 4A, B) and 5ME101 (Plate 3), rock art is possibly transitional in nature insofar as both early and late forms occur on the same panels, and some images appear to have traits of both. Site 5DT64 has petroglyphs showing one elongated but realistic horse and rider and two less realistic equestrian forms. An associated abstract image may be a power symbol for one or all of the riders. Site 5FG2, a cave site, shows in one panel what appears to be a combination battle and bison hunt scene painted and drawn in red ochre and charcoal, involving a number of abstract mounted figures holding shields and two bison which appear to have their heads lowered. Some of the horses show manes and bridles decorated with "feathers." Several artists and time periods are apparently represented at the site as there are a variety of figure-types throughout, some are realistic. A nearby panel at 5GF2 has an elaborate polychrome "feathered" shield which is consistent with Late Style imagery. A panel of Late Style petroglyphs at 5ME101 includes equestrians, anthropomorphs, guns, bows and arrows and shield-figures holding lances and wearing headdresses in battle scenes. Other realistic imagery at the site is a hunting scene showing a deer or elk and an anthropomorph with a bow and arrow. On the same panel are a variety of linear and other abstract forms including anthropomorphs and equestrians which are typical of Early Style Ute rock art. While some Ute rock art panels suggest the work of a single artist, the majority of panels indicate the workmanship of more than one artist. Patination levels generally do not indicate any significant time difference between the work by various artists. At site 5ME101 there is no real difference between patination levels on stylistically early and late Ute petroglyphs. Elsewhere in west-central Colorado, there is the possibility that stylized bear pawprints, anthropomorphic forms and various abstract images associated with Ute petroglyphs are imitative of earlier, probably prehistoric, forms which occur frequently and are widespread in the region. Such imagery with distinct patination differences may occur at the same sites (Figure 5A, B).

For the purposes of this paper which intends to address the subject of Ute rock art throughout western Colorado, the Buckles' style criteria are applied below to documented rock art with historic content or context occurring in northwestern and southwestern Colorado. It is proposed that the style categories developed by Buckles (1971) and tested by Cole (1987) are meaningful outside of west-central Colorado because of the mobility of the mounted Ute and the apparent flexibility of Ute social and political structures (Steward 1974; Smith 1974; Stewart 1976) which would have allowed ideas inherent in style development to spread rapidly. Data from northwestern

Colorado include rock art described and illustrated by McKern (1983), Wenger (1956) and Creasman (1982) as well as records for Little Snake Resource Area rock art listed by La Point (1987). The southwestern data is meager and consists of records for two sites from the San Juan Resource Area of the Bureau of Land Management.

McKern (1983:Fig. 55) illustrates three examples of Craig New Type petroglyphs, an elongated outlined horse, a stick-like and distorted horse and a horse and rider which are outlined. The latter horse has the head turned to give a full face view; the rider is a simple abstracted form. All of these New Type figures meet the subject and formal criteria of the Early Style Ute rock art, however, without additional information as to complete compositions and thematic associations, it is not possible to clearly identify the presence or absence of a style. Not all of the New Type petroglyphs described by McKern are illustrated.

Wenger (1956) describes and illustrates petroglyphs at four sites which he suggests are Ute and have historic subject matter and fresh appearance. Wenger (1956:Figs. 71, 73-74) illustrates historic subject matter at two sites, COLO.H:2:21 and COLO.H:2:11. At the former site rock art includes an abstract mounted shield-figure apparently attempting to rope a horse and a possible corral with a horse and an anthropomorph inside; also depicted are a bighorn sheep, linear abstracts, shield figures and possibly a shield, all in outline. The subject art is also illustrated and discussed, in part, by Creasman (1982:Fig. 8d. e) below. Generally, the rock art is stylistically consistent with Early Style Ute forms and themes. Petroglyphs at the second site illustrated by Wenger shows a detailed outlined tipi, a full-bodied outlined horse with rider wearing a headdress and an anthropomorph holding a lance or stick. The tipi and horse with rider are realistic in appearance; the horse is slightly elongated. Also at the second site is a composition showing a realistic, almost naturalistic, rider on a slightly elongated horse, a device which appears to be a decorated parfleche and a linear abstract image (possibly a personal symbol?). The horse and rider are full-bodied figures, and the rider wears a trailing headdress; the horse has a bridle. Imagery at both of the latter panels fits the criteria of Late Style Ute rock art. From two sites, COLO.A:13:4 and H:1:5, Wenger (1956:Figs. 69-70) illustrates a portion of the rock art which does not include horses and horses with riders which also occur. Illustrated petroglyphs include stick-like anthropomorphs, a "sun" or shield form two snakes, an abstract ovate anthropomorph and quadrupeds including a possible bear with claws shown on the fore feet. All of the forms are executed in outline. The illustrated rock art is tentatively proposed to fit the criteria of Early Style Ute art, although the nature of associated imagery could alter that conclusion.

Creasman (1982:1-3) has described three protohistoric rock art styles for Canon Pintado, the elongated, the realistic and the shield-figure motif, which he assigns to either the Ute or Shoshoni. A review of Creasman's style criteria and illustrations from four sites (1982:Figs. 8-11) indicates that the elongated style generally corresponds to Early Style Ute rock art, and the realistic style corresponds with the Late Style. The shield-figure motif style at 5RB92 (also Wenger 1956: COLO.H.2:21) as described and illustrated by Creasman (1982:Fig. 8d, e) has similarities with both the Early and Late Ute styles. The panel shows a realistic horse with stylized round hooves

being ridden by an abstracted linear shield-figure wearing a two-horn headdress. Nearby forms are a realistic rifle and two simple outline shield-figures.

La Point (1987) has listed a possible eleven sites with protohistoric rock art. Out of those, five sites exhibit rock art with historic content and are sufficiently well documented to be included in this analysis. The sites are: 5RT6, 90; 5MF435, 436 and 948 (Figures 10-12). At 5RT6, there are rock paintings which include three shield-figures, a red hand print, a mounted figure holding a shield and lance and an anthropomorph with loop-like arms. Only the shield-figures are clearly illustrated. Two of the shield-figures are carefully executed and very detailed. One shield is an abstracted open circle painted green with red "buttons" down the center and ray-like lines protruding from the left side (Figure 10). The neck of the figure is long and thin, and the head is small and round; the figure has no legs or feet. A second shield-figure has dense hair-like (hide?) detail on the shield and appears to be walking. A third shield-figure is a more simple solid red form with legs and feet. The latter two figures have round heads set directly on the shields. The shield-figures are not typical of those shown in Early or Late Style Ute rock art but are stylistically similar to Shoshonean shield-figures of the northwest Plains and Westwater Creek, Utah, illustrated by Keyser (1987:Figs. 2-3) and Wormington (1955:Figs.60-61, 62e). At 5RT90, there are four panels of red paintings which show abstract horses and riders (one is a shield-figure), abstract outlined and solid anthropomorphs (including several shield-figures), hand or paw prints, a bird track and unidentified linear forms. Three anthropomorphs wear linear "feather" headdresses; two are crown-like. The horses are both elongated and distorted in shape. Generally, the rock paintings at 5RT90 fit the criteria of the Early Style Ute rock art. One panel (Figure 11A) features a loosely organized composition showing rows of anthropomorphs which appear to be wearing dresses, skirts and blouses or robes with a variety of shield-figures and one abstract horse with rider. Some of the figures hold lances or sticks, and one has a crown-like "feather" headdress. It appears that the panel represents two or more time periods and artists as outlined and more linear elements are darker red than the solid forms. Possibly the panel presents a ceremony or ceremonies in which women and warriors are represented. Stewart (1976:323-324) describes a Ute Shield Dance which involves men and women in single file with shields on their backs and war bonnets. Something similar may be represented at 5RT90. A second panel at 5RT90 (Figure 11B) shows an elongated horse with abstract rider, three shield-figures (one mounted) and an anthropomorph with a crown-like "feather" headdress holding an unidentified device toward an abstract horse with rider. A bird track appears above the anthropomorph (possibly a power symbol?).

Early Style Ute charcoal drawings are exhibited at site 5MF435. The drawings are of abstract equestrian forms and an abstract anthropomorph on foot (Figure 12); one of the riders appears to carry a shield and a lance. The figures are all drawn in outline. Quadrupeds which may be bears (one has large curved claws) are shown being hunted. Contact with the prey is indicated by lines extending from the hunters to the quadrupeds. Site 5MF436 has red paintings showing a stick-like anthropomorph on foot shooting an arrow at a man on horseback who holds a lance or stick. The paintings are typical of

peds include bighorn sheep, bison, a canine and a pronghorn. Anthropomorphs are depicted holding a bow and arrow and stick-like devices and as if in motion. Headdresses are exhibited including "rabbit-ears" and "feathers." One or two anthropomorphs appear headless, and one has no arms; a mask or costume is suggested for one figure. At site 5ME162, two lightly patinated anthropomorphs assigned to the Ute appear to be copies of adjacent prehistoric petroglyphs.

It is possible that the subject rock art was made by Utes who were not in possession of the horse or who were not significantly influenced by Euro-American or Plateau-Plains cultures. Also, the possibility exists that the art merely reflects the intention by the artists to depict aboriginal subject matter. A similar situation exists with the Bear Dance scene at 5MN5 (Figure 2) described earlier and other panels of Ute rock art which do not include horses or other historic imagery (Figure 7; Plate 2). In the latter cases, rock art with historic subject matter or context which occurs elsewhere at the sites clearly supports historic designation for the panels without historic content or context.

THE QUESTION OF ORIGINS: PRE-A.D. 1600 UTE ROCK ART

Presently, the rock art which is attributed to the Ute with some confidence is associated directly or indirectly with the historic period, after A.D. 1600, because of the lack of archaeological evidence for the presence of an identifiable Ute culture in Colorado prior to that date and tested style criteria which are limited to rock art with historic associations. Thus, the rock art data are consistent with the remainder of the archaeological record, although it is clear that much remains to be done in rock art documentation and analysis, specifically as regards Ute rock art without historic associations. If pre-A.D. 1600 Ute rock art is present in Colorado, it seems likely that it can be tentatively identified based on observable continuities with stylistically defined art. It is recognized that cultural change can be abrupt and old pro- cesses quickly terminated, however that is not suggested for the Ute by archaeological and ethnographic data. Despite the very visible cultural changes which took place following the adoption of the horse by the Colorado Ute, the continuation of a basic Great Basin cultural pattern on various levels is proposed by ethnographers (Smith 1971; Stewart 1976) and is suggested by the archaeological evidence including the rock art as indicated in the discussion on interpretation of Ute rock art below.

In west-central and northwestern Colorado earlier rock art has been interpreted as having stylistic and cultural continuities with historic Ute art (Buckles 1971; McKern 1983). Buckles (1971) has proposed similarities between Early Style Ute rock art and the prehistoric Uncompahgre Style 1, especially between the abstracted and elongated quadrupeds of both expressions. As noted earlier, it is possible that some historic period Ute rock art is included in the prehistoric Uncompahgre Style 1 defined by Buckles (1971) as he does not otherwise account for Ute rock art without historic associations. However, there are general similarities between prehistoric Uncompahgre Plateau rock art and historic Ute rock art specifically as regards representations of hunting scenes, bear pawprints, linear abstracts, rows of deer or elk and bighorn sheep and simple stick-figure anthropomorphs in both expressions. There is also a sharing of some rock art site locations. McKern (1983) has proposed cultural continuities between early and

late styles of petroglyphs at sites in the Shavano Valley and near Craig. While all of the art is attributed to the Ute, McKern observes that the early art is generally different from the later. McKern's opinion concerning the Ute origin of all of the art appears to be primarily based on the fact that Utes are historically documented occupants of the regions of study, and differences are assumed to have been the result of widespread patterns of diffusion and historic change. At the time McKern made the subject rock art study, he did not have the advantage of more recent archaeological research in western Colorado indicating the presence of a number of prehistoric cultures which made rock art. Elsewhere in western Colorado prehistoric rock art is assigned to a number of styles and cultures, particularly the Fremont and Anasazi (Hurst 1940 McKern 1983: Cole 1987; La Point 1987). Well described rock art traditions of latter groups (Castleton 1978, 1979; Schaafsma 1971, 1980) have little similarity with historic Ute rock art, and no cultural continuums between the Anasazi or Fremont and the Ute specifically have been identified.

As a result of the 1987 study of west-central Colorado rock art, Cole concludes that there are no definitive stylistic relationships or continuities between the prehistoric Uncompahgre Style rock art (which includes the Uncompahgre Style 1) and historic Ute rock art other than the sharing of some locations and an emphasis on bear imagery, particularly stylized bear pawprints. Additional shared subject matter, formal traits and themes such as linear abstracts, "tool" grooves, bighorn sheep, deer or elk, hunting scenes and stick-figure anthropomorphs provide inconclusive evidence for cultural relationships insofar as such rock art imagery is wide-spread in the Great Basin (Heizer and Baumhoff 1962; Heizer and Clewlow 1973) and Plains (Keyser 1984; Sundstrom 1984) where it is attributed to a number of prehistoric groups over time. Also, there is the problem of Ute imitation of earlier rock art which may account for shared imagery such as stylized bear pawprints as well as other subject matter and formal traits. Additionally, it is noted that Ute rock art is seldom as carefully executed or as complex thematically and formally as prehistoric Uncompahgre Plateau art.

There is the distinct possibility that very little pre-A.D. 1600 Ute rock art with Great Basin origins is present in western Colorado. That is, Colorado Plateau Utes may have begun making rock art in response to prehistoric rock art or as the result of influences from Fremont and/or Plateau-Plains cultures. Bettinger and Baumhoff (1982:493-495) discuss the nature of Prenumic and Numic rock art in the Great Basin as archaeological evidence for cultural distinctions leading to the replacement of Prenumic populations during the Numic spread of the past thousand years. It is their position that Prenumic groups are responsible for the majority of the widespread elaborate rock art in the Great Basin. The authors cite an absence of evidence for its original production by Numic groups based on ethnographic accounts, social organization, oral and ritual traditions. Additionally, the authors note the discrepancies between recognizable Numic rock art and earlier art. "These designs lack the elaboration and attention to detail found in Prenumic rock art, the bulk of them being quite simple and crudely executed in a style that requires little effort . . . These often occur as unpatterned scrawls, frequently superimposed over earlier Prenumic elements, in many instances apparently with the deliberate intention of obliterating them . . . Conceivably, such defacement might be explained as attempts either to neutralize or purify potentially malevolent magic though to be associated

rawhide visors or eyeshades, spears or lances, shields (whole body and hand-held), and whole skins of animals (Koch 1977). Euro-American material culture includes brimmed hats, guns, horses, tack, lariat and a corral.

Bear iconography, specifically a possible bear shaman dressed in a complete bearskin and a possible feather headdress at site 5ME232 (Figure 6), may have ancient symbolism in either Great Basin/Ute or Plateau-Plains ideological systems. Stewart (1976:280, 317, 333) reports for the Ute that bear shamans wore bearskins in war, impersonated bears and were believed to have been visited by bears. The powers of bear shamans included the ability to transform themselves into bears, cure, rapid travel, copulation with female bears and invulnerability. Koch (1977:44-45, 154) illustrates a George Catlin painting of a Blackfoot medicine man wearing the whole skin of a bear and states that bear ceremonialism, including that of bear cults and classes of bear medicine men, occurred among Utes as well as Kiowas, Arapahoes, Cheyennes, Western Sioux, Crows, Assiniboins, Blackfeet, Plains Crees and Plains Chippewas. The Bear Dance as discussed above for site 5MN5 (Figure 2) is the only major ceremony documented for the Northern Ute which is believed to have aboriginal origins (Smith 1974:220). Reed (1986:237-244) states that the Southern Ute believe that their first ancestors were bears, and that a later race of Indians changed to bears upon death. Present day bears are believed to be related to the ancestral bears. The Ute believe that the bear possesses magical power. Totemic or at least ancestral relationships are reinforced by Stewart (1976:242) who reports that during Ute bear hunts the animals are addressed as grandfather, grandmother and aunt.

Animals other than horses and bears which are featured in Ute rock art are bison and bighorn sheep (Figures 4, 5A, 13; Plates 4A, 5A, B). Representations of bison and bison hunting scenes probably reflect increased economic interest following the adoption of the horse as well as acceptance of various spiritual values attributed to bison by Plains groups. The relatively large size and the realistic nature of bison occurring throughout Ute rock art support the latter. Bighorn sheep representations in Ute rock art may be related to the importance placed on that animal in the Great Basin and northern Southwest for several thousand years. There, bighorn sheep and sheep horn headdresses are prominent in rock art and ceremonialism, and bones of the bighorn occur frequently in archaeological sites (Heizer and Baumhoff 1962; Grant et al. 1968; Schaafsma 1971). Whitley (1982:132-146) has discussed the mythic importance of hunting bighorn sheep to Western Shoshone to whom the bighorn is symbolic not only of food and other economic resources but of the power inherent in manhood. Hunting the bighorn is viewed as an essential ritual for maturity, symbolizing sexual prowess as well as economic confidence.

The reservation period Ute have acknowledged making rock art and being conscious of older rock art in the region where they lived (Stewart 1976:321). Informants report that rock art was made by present Indians and was made by prehistoric Utes and other ancient Indians (Mokwits). Paintings are reported to be more recent than petroglyphs. Additionally, rock art is viewed as having mythic origins, made by animals when they were men. The majority of informants viewed the making of rock art in ancient and modern times as being for fun. It was noted earlier in this paper that the modern Ute report having copied or imitated older rock art and that the Ute added red paint to earlier rock art. Those activities are possibly related to

making rock art for fun. Although, it is also possible that imitation or enhancement of earlier forms gave the Utes an association with ancient symbols believed to have spiritual power and/or places believed to be spiritually powerful. Related ideas were expressed by Bettinger and Baumhoff (1982) for the Great Basin Numic. Lowie (1924: 296) reports that the Wind River Shoshoni sought out special power places for shaman visions: "Long ago the Shoshoni would go to the hills or rocks in the mountains where there was 'a kind of writing'" (rock art?). "There they would sleep for from one to three nights in quest of a dream, but without fasting; in the morning they went back home. Some animal or person might appear to the would-be visionary and tell him he was to be a physician."

Stewart (1976:320-321) reports the making of rock art by Utes also for imitative magic. The use of rock art for imitative magic is presumably related to hunting success or warfare. Heizer and Baumhoff (1962) and Grant et al. (1968) have proposed that shamans in the western Great Basin made rock art showing hunt shamans, hunting scenes and abundant game for imitative magic. Ute rock art scenes showing game animals in association with anthropomorphs wearing headdresses (possible shamans) may have had a similar function.

Another possible function for Ute rock art is recordation of events important in the lives of individuals or groups, something proposed for late prehistoric and historic northwest Plains rock art by Keyser (1977; 1984). Keyser interprets late prehistoric and early historic Plains rock art as having a medico-religious context concerned with subject matter of a spiritual nature, possibly functioning as part of vision quests for power related to hunting and war. Symbolism associated with bison and shield-figures or shield-bearing foot soldiers is particularly noteworthy in the ceremonial rock art complex described by Keyser for the northwestern Plains. A variety of shield-figures, shields and bison also appear in Ute rock art scenes (Figures 1, 2, 11A, B, 12-13; Plates 1, 3-5). Buckles (1971:1083) describes Ute rock art showing horsemen with adjacent abstract forms and a bird which may symbolize the riders' personal power, and Cole (1987) discusses additional examples of personal power symbols associated with shields. As noted earlier in this paper, a bird-track which appears on the shield of a foot soldier at 5DT1 (Figure 1) may symbolize his personal power; an abstract image shown at 5DT64 (Figure 8) may symbolize a power source. Stewart (1976:318) reports that animal guardians for individuals other than shamans were sought in isolated and mountainous places; Ute shamans gained specific medicine or power from visions of guardian spirits and animals. Lowie (1924:294) reports that Paviotso (Northern Paiute) shamans get their songs and regalia through a vision in a dream. The possibility that Ute rock art functioned to document such visions is strongly suggested by petroglyphs at 5ME232 showing a large pawprint with claws; an anthropomorph wearing a two-horn headdress and the possible bear shaman in a whole bearskin discussed above (Figure 6).

Later Plains rock art described by Keyser (1977; 1987) seemingly serves to document and narrate details of activities such as mounted battles, counting coup, stealing horses and raids in the manner of perishable art of the Plains. This biographic rock art complex has been discussed earlier for site 5GF1339 (Figure 9). While not as formally organized or detailed as rock art described by Keyser, Ute rock art showing battle or hunting scenes,

tipis, and detailed activities of anthropomorphs, quadrupeds, equestrians and shield-figures or foot soldiers may have served a related function. Stewart (1976:274, 302) reports the decoration of horses with feathers by Ute shamans and warriors and the occurrence of scalps tied on the heads of horses. Details depicted in Ute rock art indicate feather or scalp decorations attached to horse bridles or manes (Figure 1: Plates 3, 4A) and suggest the documentation of particular individuals or groups and events. In a Ute-Navajo battle scene painted by Navajo in Canyon de Chelly, Arizona, it is reported that a distinguishing feature of Ute warriors is the presence of feathers on the bridles of the horses (Grant 1978:Fig. 4.73). A possible Shield Dance ceremony discussed earlier for site 5RT90 is another example of Ute rock art which may have served to document group events and the role of individual participants. Rare documentation of Euro-American activities by the Ute is suggested by a scene described by Wenger (1956) above involving a mounted shield-figure attempting to rope a horse and a possible corral with horse and anthropomorph inside. Concern with documenting Euro-American activities is also indicated by a probable Ute rock painting of a train in the vicinity of Baxter Pass in northwestern Colorado observed by the author.

As noted earlier, one-pole ladder forms such as that in Figure 5B have been interpreted by reservation period Southern Utes to symbolize Spider Woman (Jeancon 1926). That interpretation clearly indicates cultural relationships between the Ute and Pueblo or Navajo groups to whom Spider Woman is mythologically important. Although, such relationships may date from the reservation period as it is probable that the subject petroglyph is a Ute copy of a prehistoric form. Clearly, post-A.D. 1600 to 1880 Ute rock art includes iconography and symbolism of the historic Great Basin and Plateau-Plains cultures, however, it is not apparent that there were significant influences from the Southwest, something which is consistent with what is known of the Ute culture. The extent to which the historic Ute were influenced by any one protohistoric cultural pattern is not clear from the rock art, but it is apparent that there was great significance placed on the horse and various related Plateau-Plains materials. Euro-American influence is most visible in representations of horses and related material. However, the themes of Ute rock art rarely indicate a concern with Euro-American lifestyles or beliefs. There is considerable variety in rock art subject matter, workmanship and themes suggesting that the historic Colorado Ute were experimenting with a number of ideas, probably as a result of rapid culture change. The depth of that change will be better understood when and if prehistoric Ute rock art is identified.

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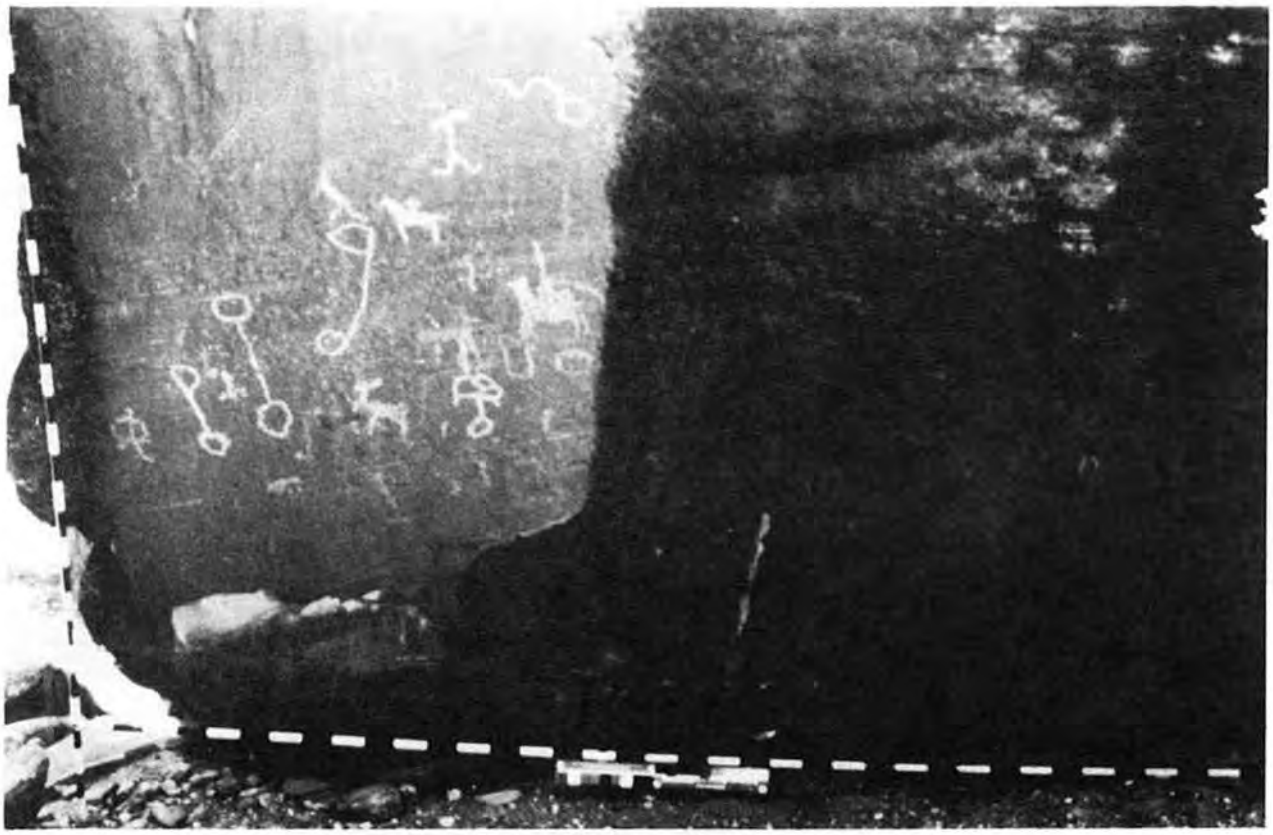


Plate 1. Early Style Ute petroglyphs at 5ME158. Subject matter includes equestrians, an outlined shield-figure and abstract linear forms. Scale increments: 10 cm. Conner and Ott (1978) photograph courtesy of the Bureau of Land Management, Grand Junction Resource Area.

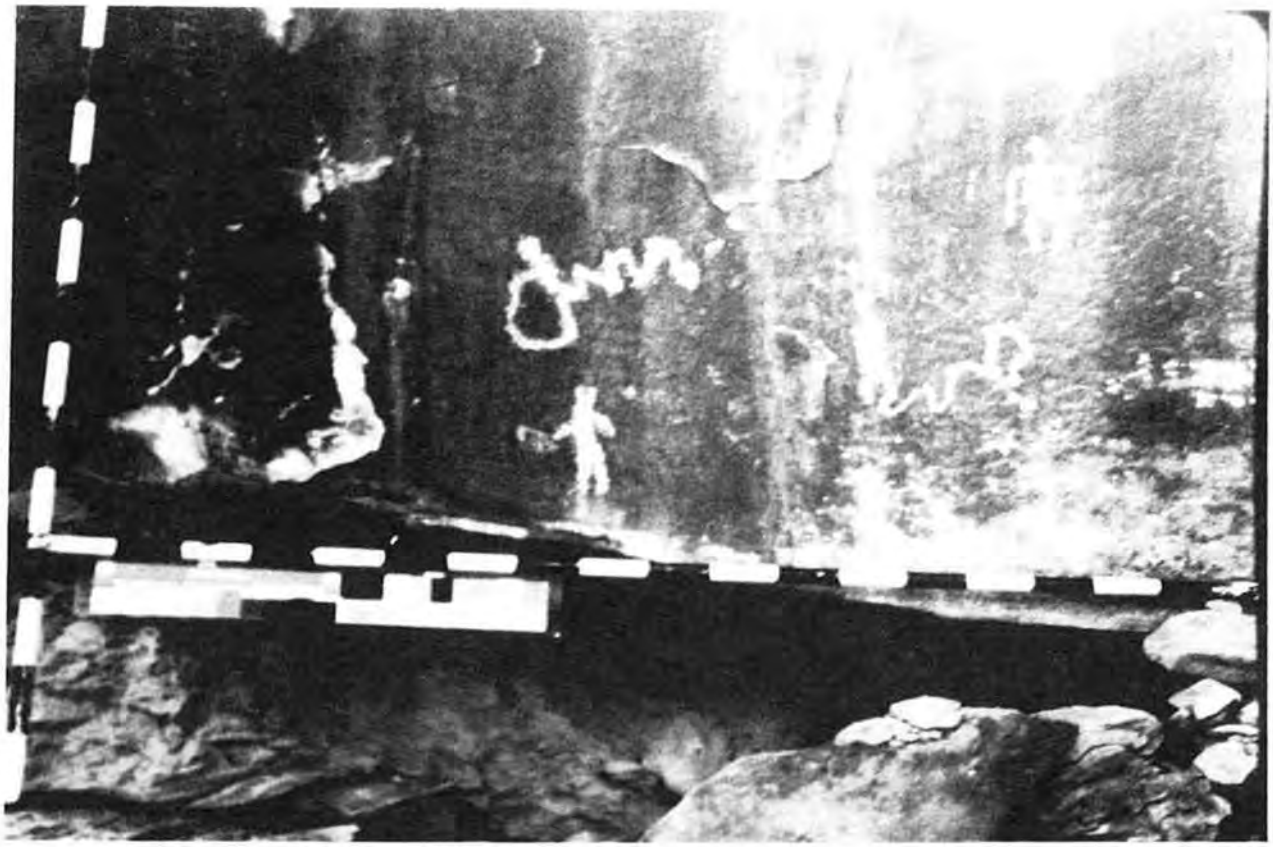


Plate 2. Probable Early Style Ute petroglyphs at 5ME158. Early equestrian forms occur at an adjacent panel. One anthropomorph wears an eared headdress, and two are bow-legged. Scale 10 cm. Conner and Ott (1978) photograph courtesy of the Bureau of Land Management, Grand Junction Resource Area.

Plate 3. Early and Late Style Ute petroglyphs at 5ME101 showing linear abstracts, abstracted anthropomorphs and equestrians, and realistic battle and hunting scenes with guns, bows and arrows, shields and lances. Feathers or scalps are shown hanging from the bridles of horses in the upper right of the photo. Scale increments: 10 cm. Conner and Ott (1978) photograph courtesy of the Bureau of Land Management, Grand Junction Resource Area.

PLATE 4A

Plate 4A and B. Early and Late Style Ute rock paintings and drawings at 5FG2, Sweetwater Cave.

A exhibits charcoal and red ochre equestrian forms in the Early Style with details such as abstract shields and "feathered" manes and bridles. Associated bison show some realism and appear to have heads lowered. The bison are approximately 20 cm in length.

B shows a probable Late Style shield which partially superimposes an Early Style equestrian form. The shield is painted and drawn in yellow, red and charcoal. Diameter of shield is approximately 60 cm.

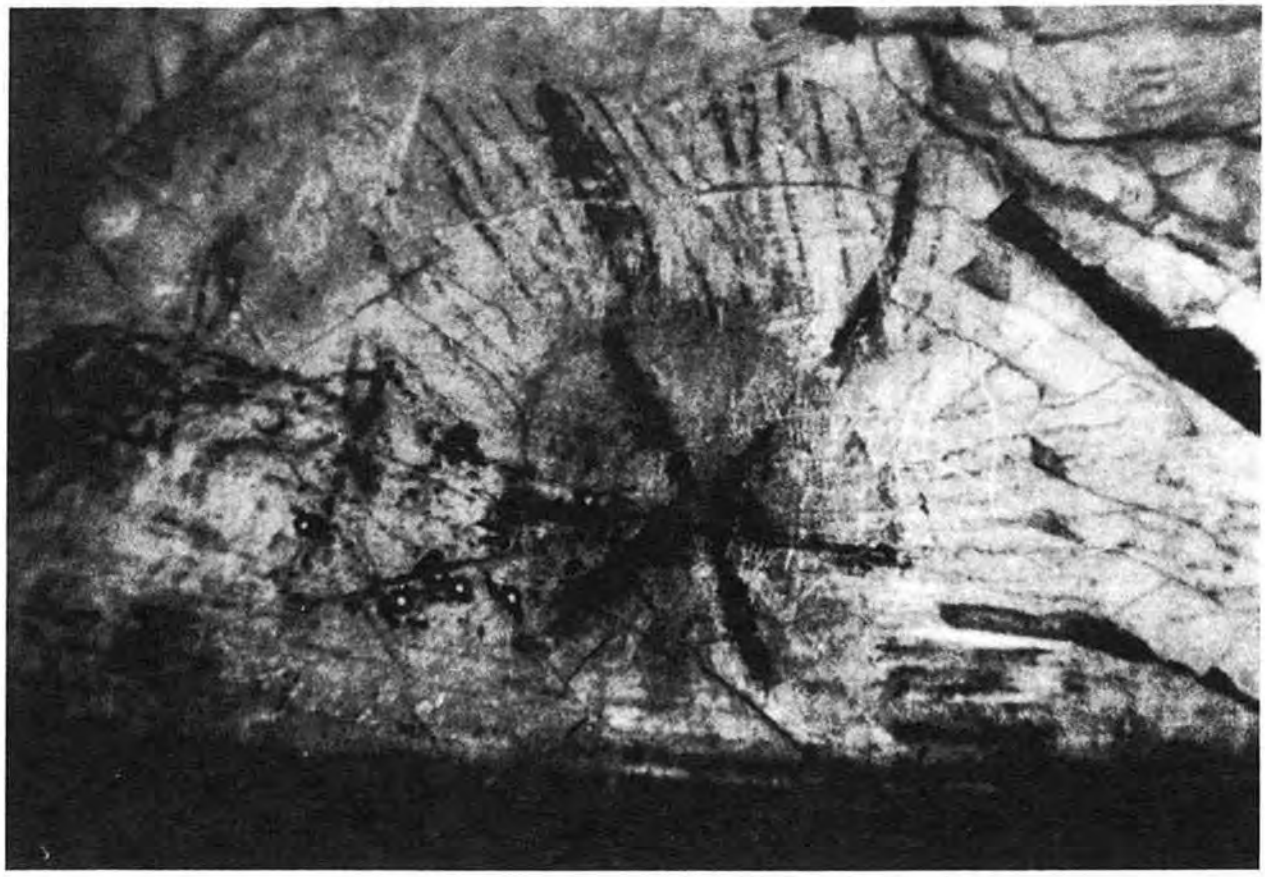


PLATE 4B

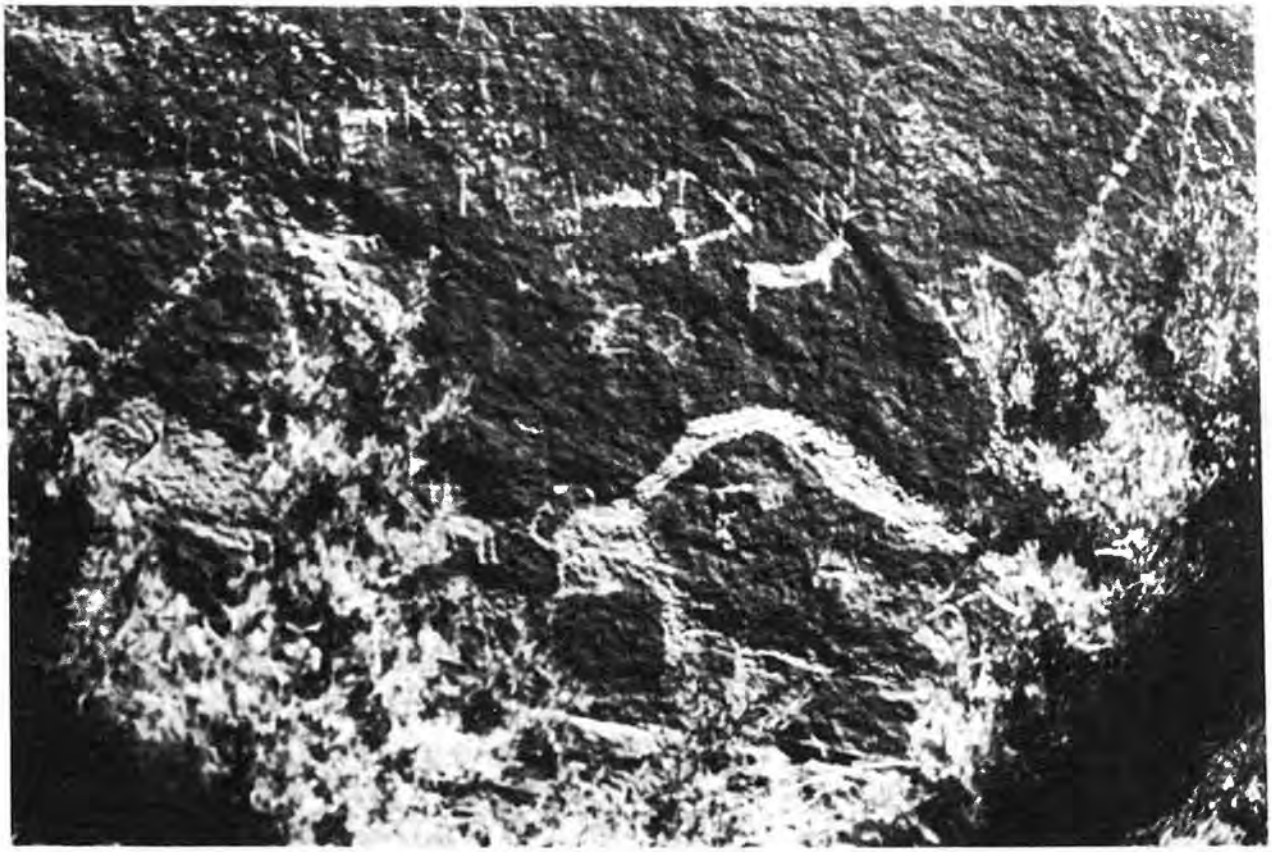


PLATE 5A

Plate 5A and B. Early Style Ute petroglyphs at 5MT3401. Visible are a relatively large outlined bison, a smaller solid bison, a deer or elk, an equestrian form, a stylized paw or handprint and a variety of stick-figures. No scale available. Photographs courtesy of the Bureau of Land Management, San Juan Resource Area.

PLATE 5B

Plate 6. Ute petroglyphs without identifiable historic content or context. Scale increments: 10 cm. Conner and Ott (1978) photograph courtesy of the Bureau of Land Management, Grand Junction Resource Area.

Figure 1. Early and Late Style Ute rock art at 5DT1. The Early Style is represented by grooved petroglyphs showing an elongated anthropomorph, linear abstracts or "tool" grooves and a bighorn sheep. Late Style art is represented by a painted scene showing equestrians surrounding a shield-figure. Detail adapted and redrawn from Buckles (1971:145).

Figure 2. Late Style Ute petroglyphs at 5MN5 showing bears climbing trees, lines and a walking anthropomorph. There appears to be at least two artists and two time periods involved. Pecked area enclosed within the dotted line is indistinct. The subject matter, in part, apparently relates to Ute Bear Dance mythology.

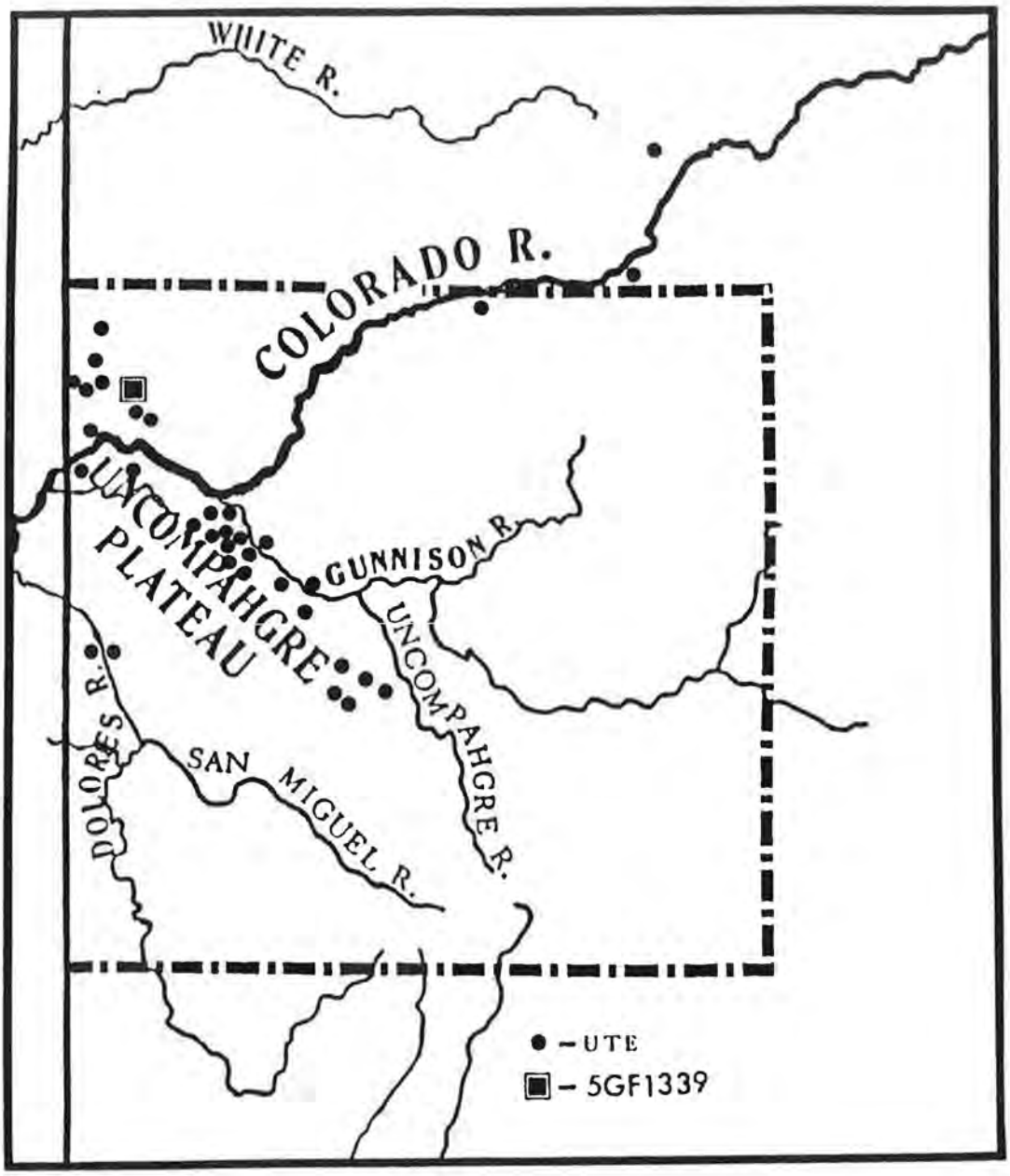


Figure 3. Map showing enlarged west-central Colorado study region and the location of thirty-four Ute rock art sites and a possible Plains Shoshonean rock art site.

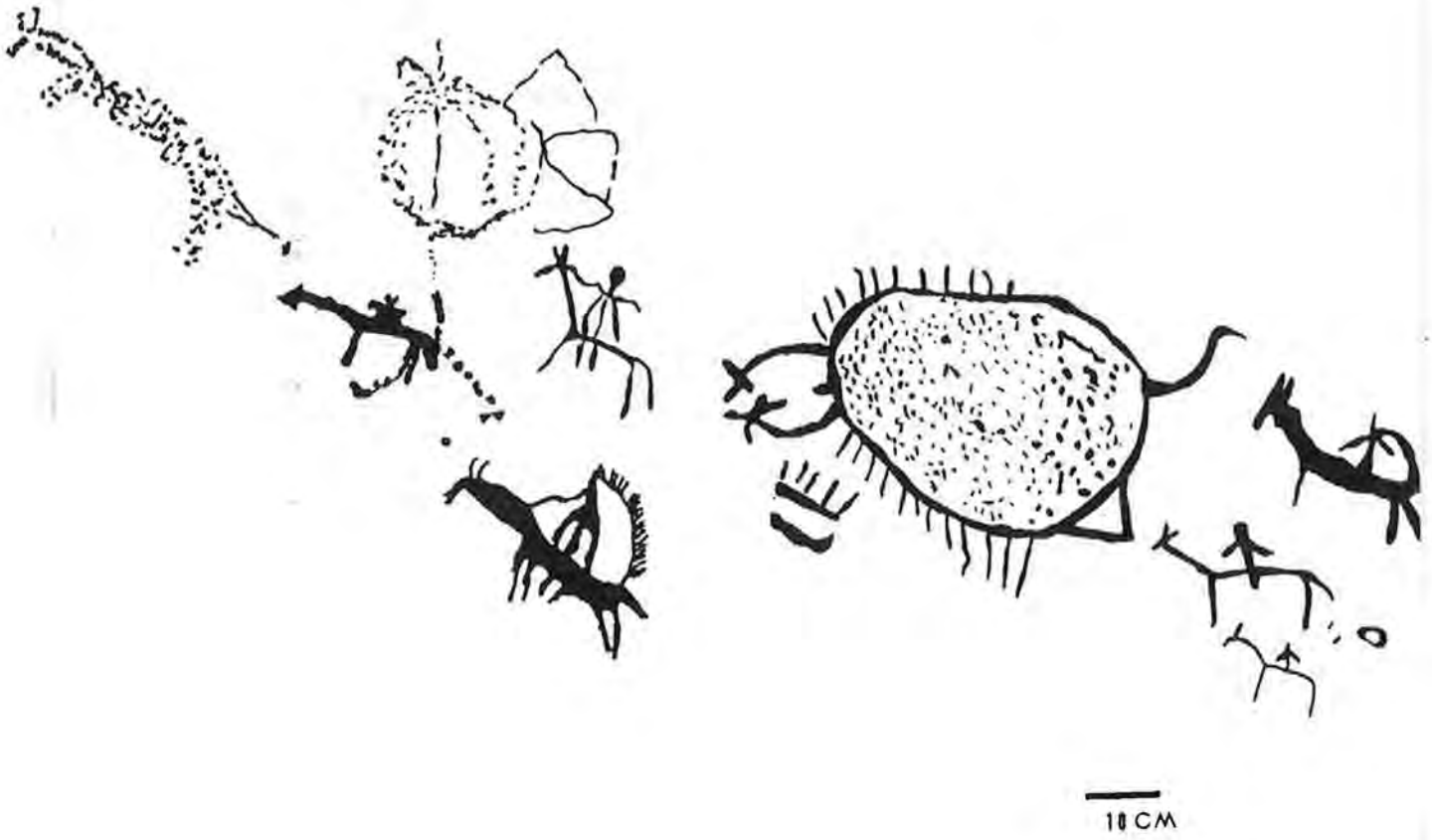
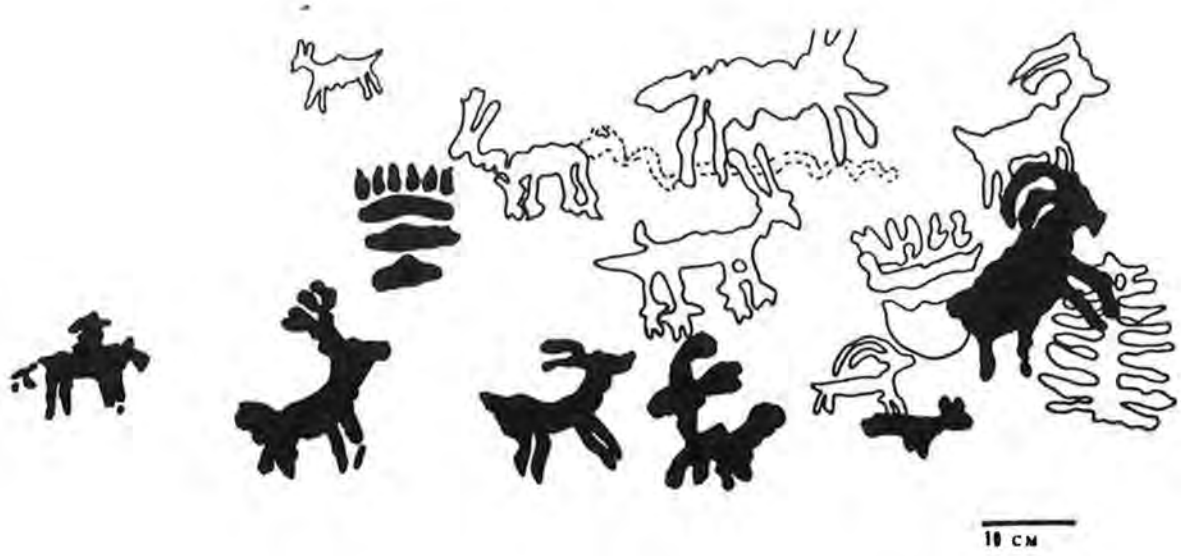
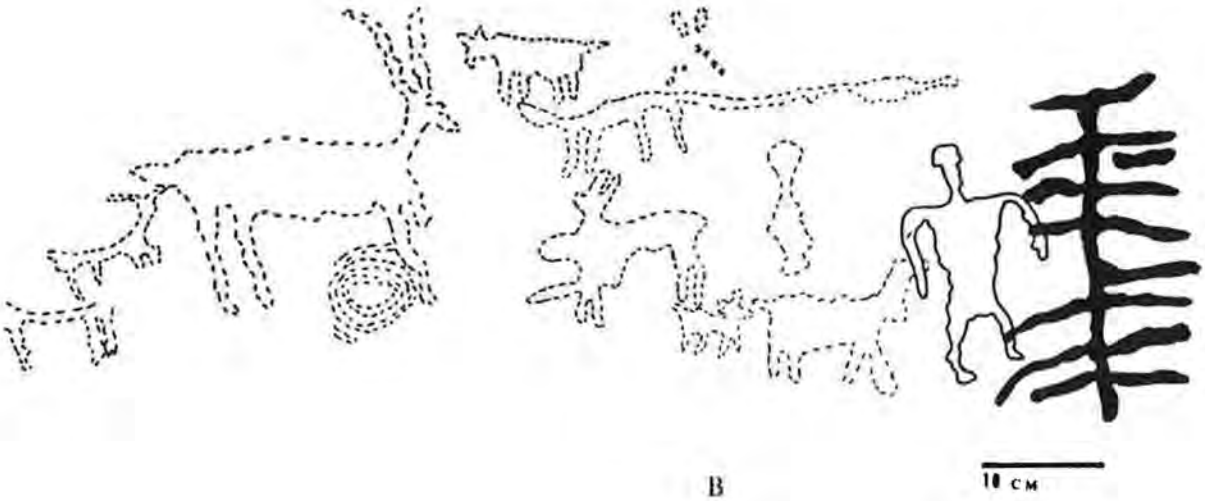


Figure 4. Early Style Ute petroglyphs at 5ME159. A bison hunting scene includes two pecking techniques and shows a highly abstract bison, linear equestrian forms, a possible shield and a stylized pawprint.



A



B

Figure 5A and B. Early Style Ute petroglyphs at 5ME163. Earlier petroglyphs shown in outline are typical of prehistoric Uncompahgre rock art. The tripartite Ute pawprint and the one-pole ladder form are similar to those which occur in the earlier art and may be imitations.

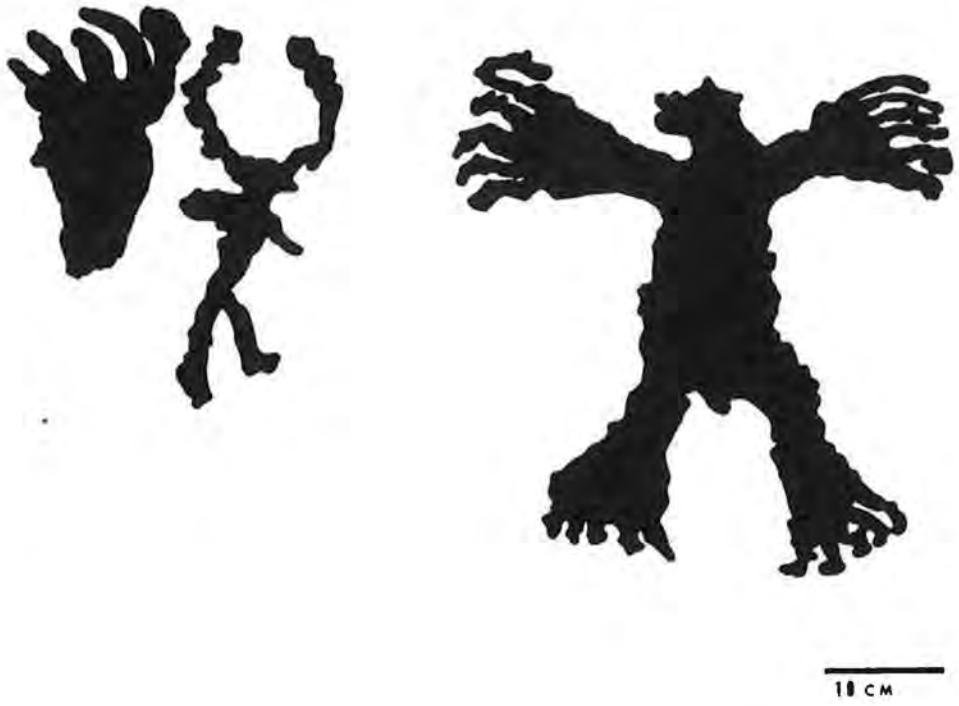


Figure 6. Early Style Ute petroglyphs at 5ME232 showing a pawprint with claws, an anthropomorph with a two-horn headdress and possibly a bear personage or a person wearing a bearskin and headdress. Nearby petroglyphs include a horse and rider.

Figure 7. Early Style Ute petroglyphs at 5ME158. Figures wear brimmed hats or caps with visors and other headdresses. The circular form may represent a shield. These are classified as early based on the stylistic qualities of nearby Ute rock art (see Plate 1).

Figure 8. Early/Late Style transitional Ute petroglyphs at 5DT64. The largest equestrian form is more realistic than the others and is more carefully made, although the horse is very elongated. A possible power symbol is represented by the abstract image beneath the neck of the largest horse.

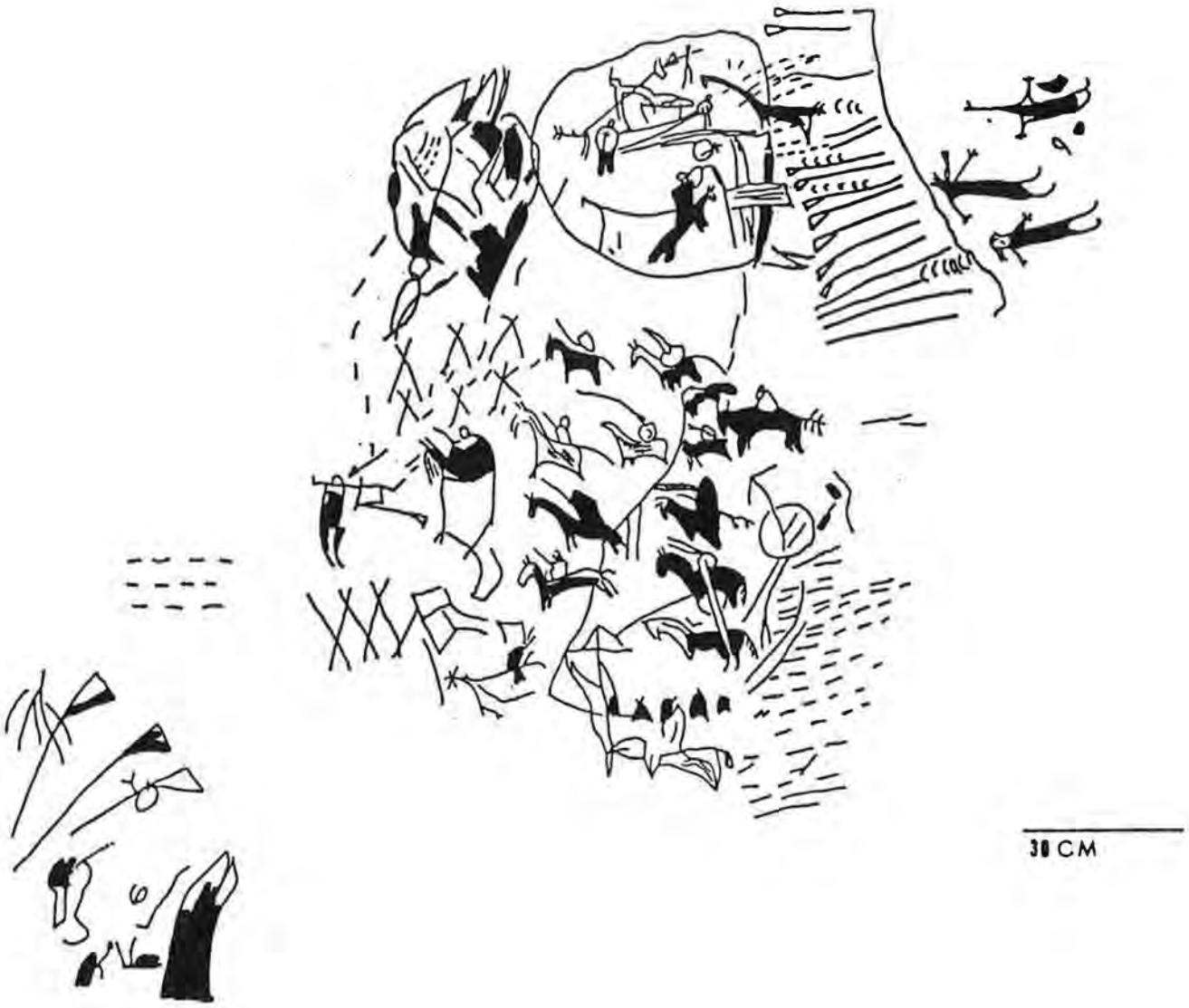


Figure 9. Possible Plains biographic complex rock drawings at 5FG1339. This type of rock art is similar to historic hide and ledger drawings of the Plains Indians. The drawings are red. Indications of movement are shown by hoof prints and dashed lines. Imagery includes shield-figures, equestrians possibly wearing robes and carrying shields and lances, X's which may indicate coup counted or horses stolen, anthropomorphs with headdresses, battle scenes, "stockpiled" rifles and lines possibly indicating terrain. Horizontal anthropomorphs in the upper right are on a rock which has fallen. Redrawn from Mahaney (1986:Fig. 38).

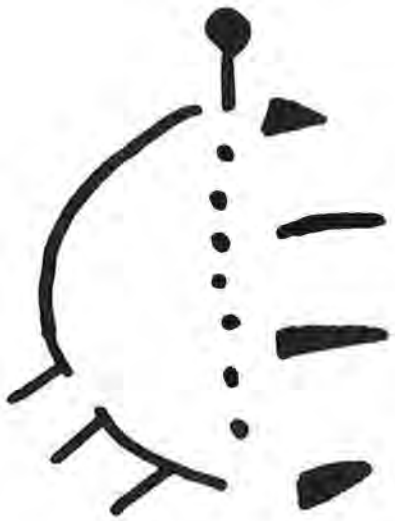
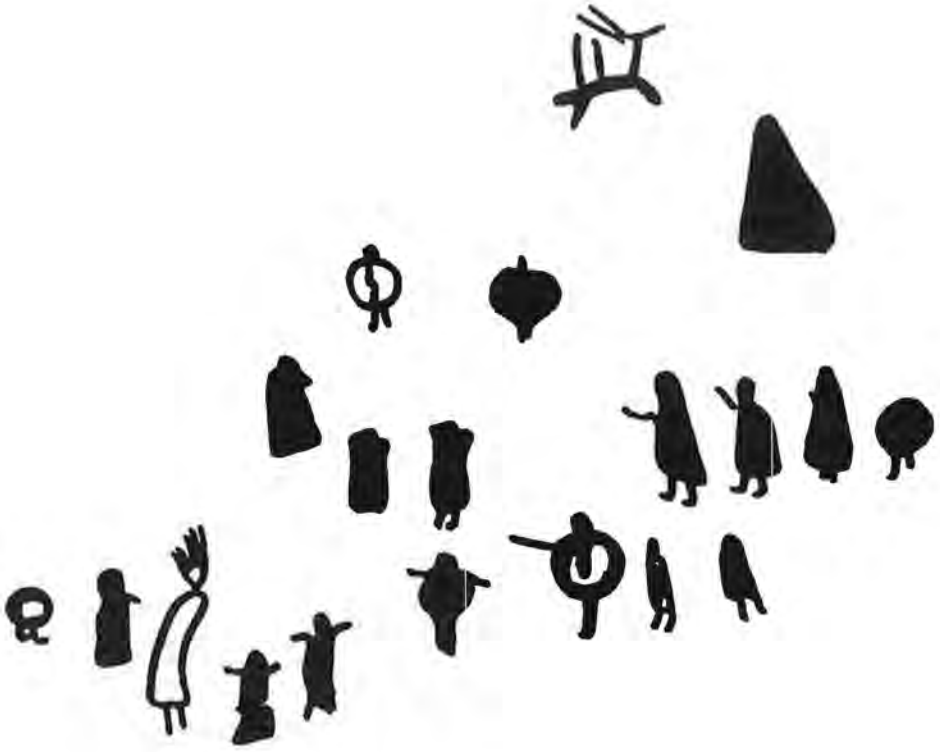


Figure 10. Red and green rock painting of a stylized shield-figure at 5RT6. The painting is possibly of northern Shoshoni origin based on similarities with northwest Plains early historic shield forms. The shield-figure is approximately 45 cm in length.



A

B

Figure 11A and B. Red Early Style Ute rock paintings at 5RT90.

A is a panel with at least two time periods which appears to show a ceremony involving people wearing robes or dresses or skirts and ponchos, a feathered headdress and carrying body shields and lances. An abstract equestrian form is depicted at the top of the panel. Panel A is approximately 1 m square.

B shows equestrians, shield-figures and an anthropomorph with a feather headdress from an adjacent panel which is approximately 3 m in length. Adapted and redrawn from field sketches by Hansen and Logan (1978).

Figure 12. Early Style Ute charcoal drawings at 5MF435. The images show outlined equestrians, one of which appears to be hunting a bear with large claws and another which may have a shield and lance. A third image shows an anthropomorph "hunting" a possible bear. The equestrian on the left is 24 cm in length, and the bear with equestrian scene is 43 cm in length. Redrawn from a field sketch by Lischka (1975).

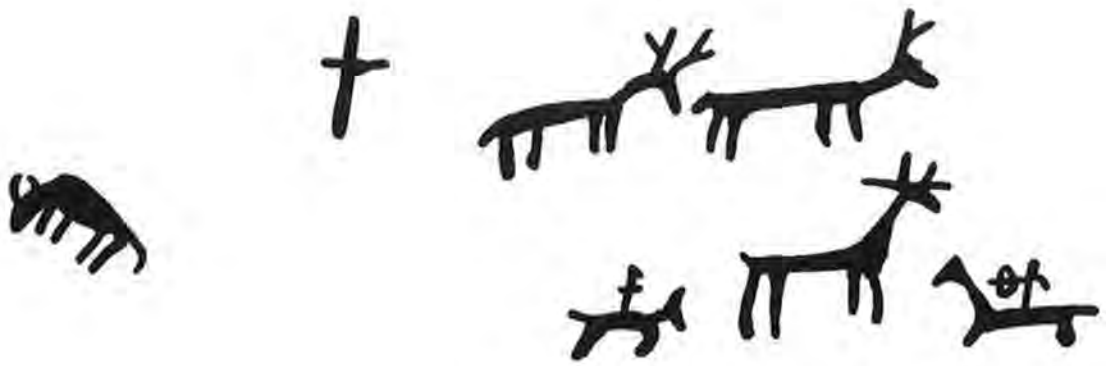


Figure 13. Early Style Ute petroglyphs at 5MT7580 showing a hunting scene involving equestrians and deer or elk. One hunter holds a bow and arrow. Associated forms include a bison and a possible abstract anthropomorph or a cross. No scale available.

DISTRIBUTION OF KNOWN UTE SITES IN COLORADO

by

Robert H. Nykamp

INTRODUCTION

This paper discusses an analysis of the site form data currently on file at the Colorado Historical Society, Office of Archaeology and Historic Preservation, in Denver. The general goal of the undertaking was to utilize the computerized data to evaluate how many "Ute" sites had been recorded and where these are located.

The first computer run contained the following data categories: "ID" (site number), "COUNTY," "DATE," "CULTURE," and "COUNT." A second run refined the data and supplied two additional categories, "SITE TYPE" and "LOCATION/UTM." Only those sites with either the term "Ute" or "Numic" encoded in the culture category were printed out. It was originally requested that the data be listed by land ownership, but this category is not encoded in the data file. Other categories requested, but not encoded in the State Historic Preservation Office data file, were artifacts and features (cultural determinants), surveyor affiliation, and environment.

COUNTY

It should be assumed that the majority of the survey work done since 1970 has occurred on Federally owned or controlled lands as part of the requirements of various preservation laws. These surveys are generally proponent-driven or are agency in-house project specific undertakings. Few, if any, can be considered as pure research projects for ethnographic or archaeological considerations. The majority of western Colorado is Federally controlled. As shown by Figure 1, the counties with the highest Ute-Numic site count are the western counties of Rio Blanco, Mesa, Garfield, and Montrose.

Given that the majority of these surveys are not purely archaeological in orientation, a good cross-representation of archaeological and ecological variables is expressed. For instance, most of the energy/mineral exploration projects are conducted in the northwestern Colorado plateau and basin country, the eastern plains, and the high altitude mountain parks. Recently, exploration has occurred in the more remote high altitude mesas and mountainous areas. Energy projects can be linear surveys or large and small scale block surveys. Timber sales are generally conducted on mountainous tree-covered slopes. Reservoir projects cover riparian zones. Recreational projects, such as modern campgrounds, require the same selection factors used by aboriginal peoples for their base camps. Other linear projects such as trails, road construction, or reconstruction cover a multitude of ecological zones and usually are along pre-established game trails, Native American, or historic trails.

Vegetative treatment projects such as sprays, burns, chaining or roller-chopping impact different vegetative zones such as pinyon-juniper, Gambel's oak, or sagebrush. Thus, the vast majority of these projects cover a wide range of ecological variables statewide, with the exception of the eastern high plains region of Colorado which is largely in private ownership.

Therefore, when examining Figure 1, it should not be surprising that the overall distribution of Ute-Numic designated sites occurs most often in western Colorado, more specifically in the plateau and basin country. There are other additional factors which may bias the distributional results. One is that the overall surface visibility may be measurably better in pinyon-juniper and sage dominated ecozones than in grassy meadows and conifer forests. A second factor is the "expected occurrence" syndrome, in that many archaeologists may or may not expect Ute-Numic sites to occur in certain areas. Another factor which may contribute to the distributional pattern is the predilection or reluctance of the recorder to label a site Ute-Numic, protohistoric, late prehistoric, or some other term.

Again, looking at Figure 1, roughly 22% or 100 of the sites were recorded in Rio Blanco County, 57 in Garfield, and 61 in Mesa County. Some of the counties with the best historically documented occurrence of Ute occupation, reflect the lowest counts, such as Routt County with four sites, Delta with seven, three from Huerfano, and none from Boulder, Larimer, or Denver Counties.

DATE

The DATE category reflects when the site was first recorded and any subsequent re-evaluations. The first Ute site recorded in Colorado occurred in 1932 in Huerfano County. The latest or most recent entry provided by the SHPO printout is 1986.

Ute sites were recorded sporadically since 1932, 1943, 1947, 1948, 1950, and 1955, yearly from 1961-1964, again in 1968, then yearly since 1972. Only 27 sites were recorded prior to 1970; between 1970-1980, 190 sites were designated Ute-Numic and 221 sites were so recorded between 1981-1986. Compressed into a five-year graph (Figure 2), the number of Ute-Numic sites recorded shows both a continuous and rapid rise.

However, when the data are presented by year, as shown in Figure 3, a different pattern emerges. Between the years 1972-1986, 411 of the 438 Ute-Numic designated sites were recorded. The peak year was 1981, with 58 of the sites recorded, a low of 5 recorded in 1972, and only 19 in 1986. Rather than a reluctance on the part of the surveyor to designate sites as Ute, this probably more accurately reflects the changing economic conditions in energy exploration, as previously discussed, these conditions dictate the area of survey, as well as the number of surveyors in the field.

CULTURE

This category refers to the time association the recorder was able to assess based upon site type, artifact or feature occurrence, or some other time associated factor. Without working directly with the site forms or field checking each site, it is not possible to sort through this category

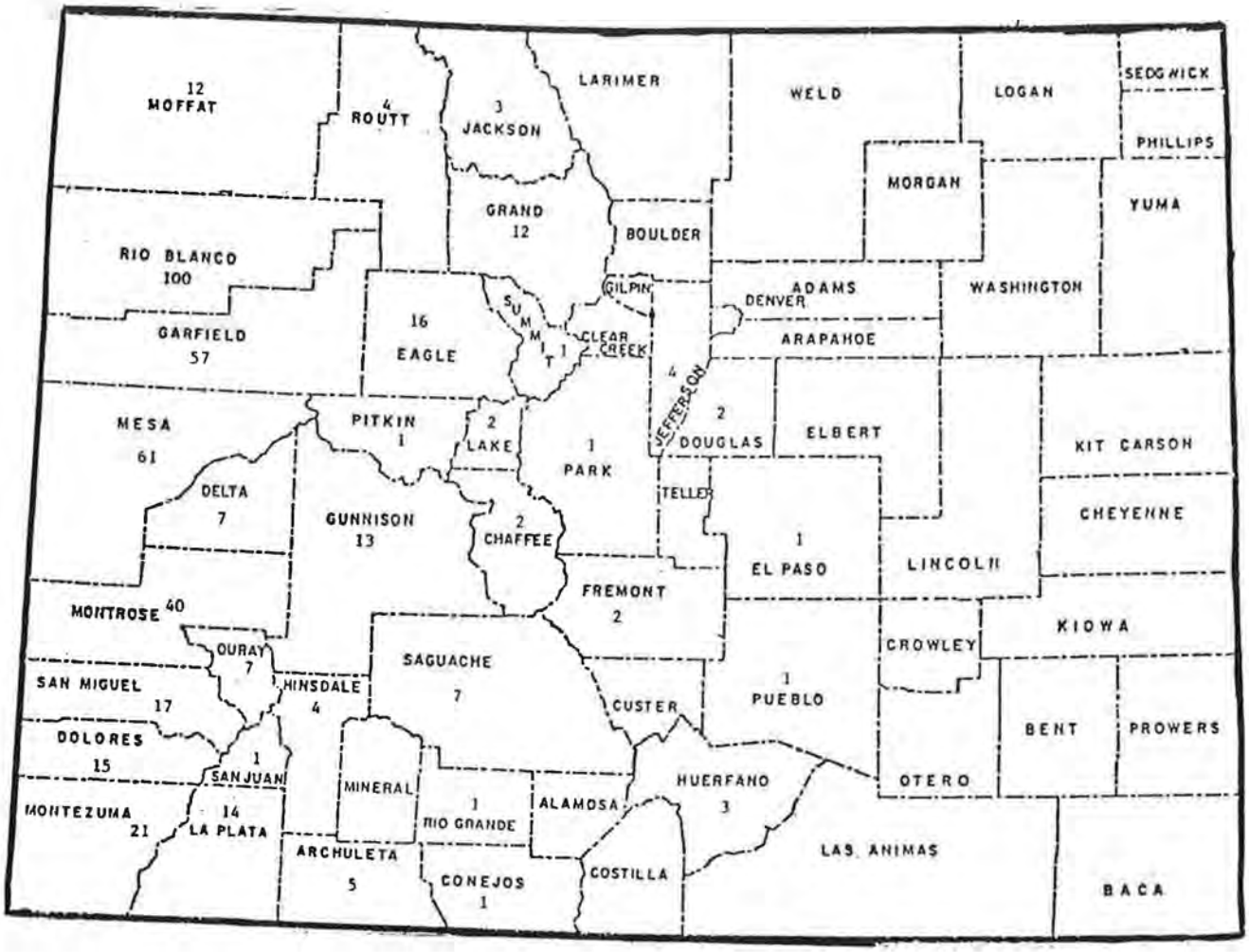


Figure 1. Distribution of known Ute-Numic sites (N = 438) in Colorado. The number of recorded sites is indicated for each county.

UTE-NUMIC SITES
RECORDED BY FIVE YEAR INCREMENTS

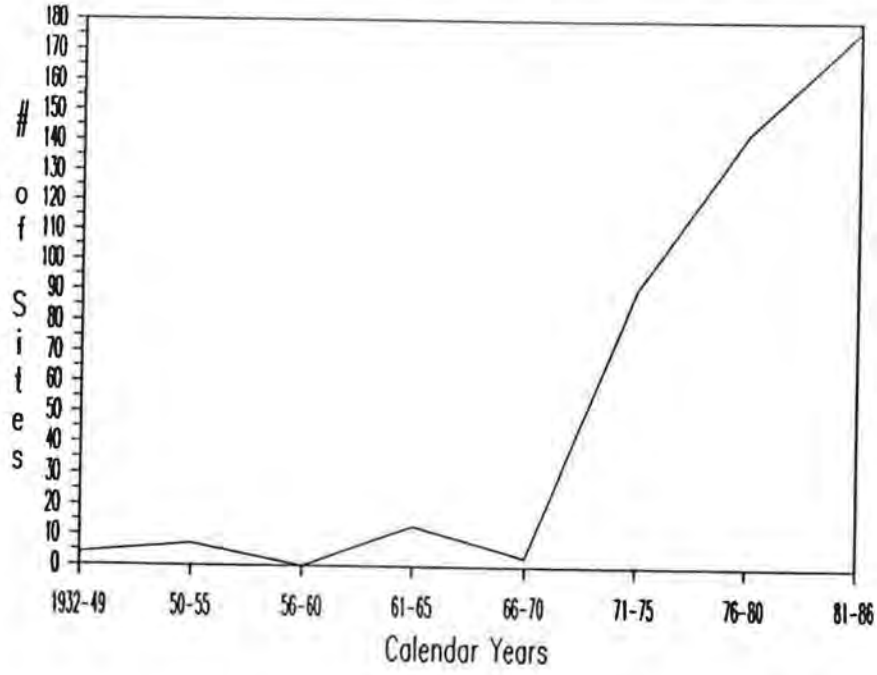


Figure 2

UTE-NUMIC SITES
RECORDED BY YEAR, 1972-1986

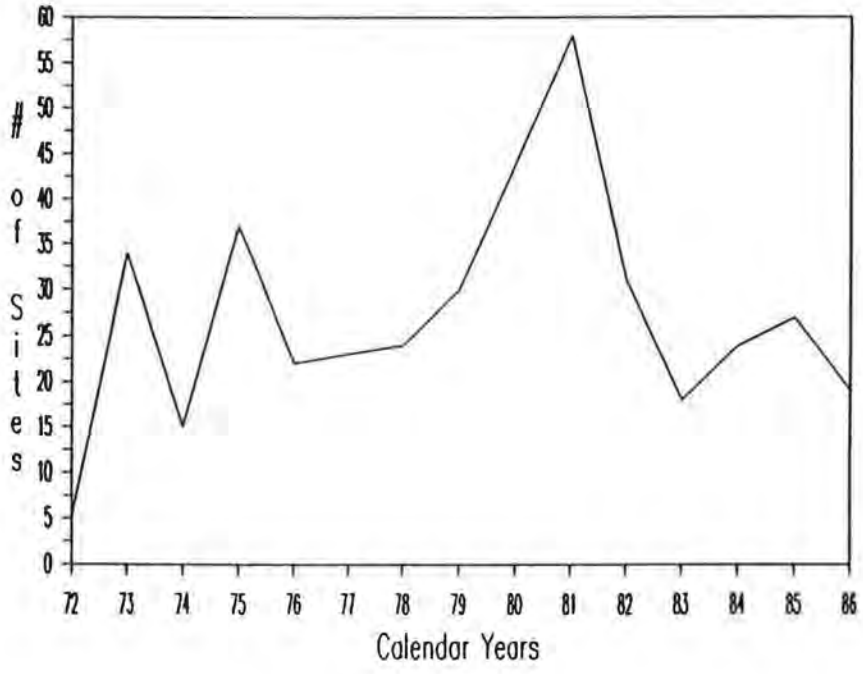


Figure 3

and validate any of the obtained results of the SHPO file search. Since the file data were obtained by requesting data on the "Ute-Numic" cultural category, this would have to be the category with the tightest control. As demonstrated by Kight (this volume), this is not the case, with a very high degree of error occurring due to the nebulous nature of Ute site types. Another factor contributing to the validity of the data is how it was obtained. It is assumed that the majority of these sites were designated on the basis of a close but rapid perusal of existing surface artifacts and manifestations, not by extensive excavations or in-depth correlation with historic documents. Terminology is also subject to varied types of usage and acceptance, with additional variation occurring over time as our understanding of data changes. Compounding these factors are the many different persons recording the sites, with varying degrees of expertise and background. It is a wonder that the profession of archaeology is able to make any headway in these areas.

Given these caveats, it is still possible to come up with some interesting correlations regarding the CULTURE category. The data summarized in Table 1 show the 12 different cultural classifications used by the Colorado SHPO, ranging from "paleo" to "historic," and including the category "unknown." Although 292 (67%) of the recorded Ute-Numic sites are single component, 37 (8%) were identified as having three or more associated cultures at the same site. These multicultural aspects may reflect continued reuse of the same environmental site determinants over time, or curational behavior on the part of the Ute by reuse of the same artifacts or temporary reoccupation of existing structures or shelters.

The multicultural classifications used most often in association with the Ute-Numic cultural determination are Archaic and Fremont. This again probably reflects the nebulous nature of Ute sites, as well as the underlying Desert Culture lifestyle of all three types. Between them, the Ute-Numic, Archaic and Fremont designations account for 86% of this category.

SITE TYPE

As shown in Table 2, there are 11 recognized site types in association with Ute-Numic sites. Because of the possibility of more than one cultural type occurring in association with the Ute-Numic culture category, 18 of the sites listed in the computer printout (approximately 4%), contain more than one site type which could not be separated from the data. Another consideration in using this data category is the difficulty in ascertaining one site type over another within some of the available categories, both by the field recorder and the SHPO data encoder.

There are, however, some useful correlates available with this data set, especially if a researcher collated the various attributes which were used in making the Ute-Numic determination. Thirty-two percent of the sites are "camps," 23.5% are "architectural," and 23% are "lithic."

A noticeable lack of site types is obscured or lacking in the present classification system. These types are "trails," "ceremonial" or "sacred/religious," "burials," and "scarred trees." All of these site types

Table 1. Cultural Affiliations in Association with Ute-Numic Sites in Colorado

Culture	Number of Sites	Percentage
Paleo	6	3.4
Archaic	44	25.0
Late Prehistoric	13	7.4
Woodland	3	1.7
Anasazi	29	16.5
Fremont	45	25.6
Protohistoric	17	9.6
Historic	1	0.6
Navajo	2	1.1
Arapaho	1	0.6
Unknown	15	8.5
Ute-Numic only	292	66.7
Sites with three or more components	37	8.0

Table 2. Ute-Numic Site Types

Site Type	Number of Sites	Percentage
Open Camp	126	27.6
Sheltered Camp	19	4.0
Open Lithic	104	22.8
Sheltered Lithic	2	0.5
Open Architectural	71	15.5
Sheltered Architectural	7	1.5
Other Architectural	29	6.3
Rock Art	46	10.0
Quarry	4	0.8
Isolated Find	45	9.8
Unknown	3	0.7
Sites "Open"	301	66.0
Sites "Sheltered"	28	6.0

are known to exist. Poorly defined site types which may be mislabeled are "quarry" and "isolated find." All of these types need to be better defined and included in the data encoding capabilities.

CONCLUSIONS

As usual, there are more questions than answers supplied by raw data. Certain categories used in this instance can be refined or recombined, such as "In what counties do Fremont/Ute or Woodland/Ute sites occur?"; "Which culturally encoded sites occur with what site type, i.e., how many Ute/Fremont sites are rock art sites?"; "How many of these coincide with shelters?"; other questions involve the use of terminology and definitions.

With more in-depth research such as physical examination of the site forms or actual field checks, other questions such as site location variables can be examined. Are there site component and feature or artifact variables that coexist? Is there an artifactual material type preference?

In conclusion, very few non-government sponsored syntheses exist, especially since the 1970s. This symposium can go a long way to rectify this situation. As a final statistic, of the more than 36,000 prehistoric sites recorded in Colorado, only 438, or 1.2%, are designated Ute-Numic, yet these people were the most recent and largest aboriginal group known to have existed in Colorado.

UTE SITES IN EAGLE AND GARFIELD COUNTIES, COLORADO: A CALL FOR GUIDELINES IN SITE RECORDING

by

Bill Kight

INTRODUCTION

The first statement that the author wishes to make is that he is a field archaeologist. As such, it is his belief that when recording a site one should do so as if they were the very first professional to ever see that cultural manifestation. Without a sense of wonder we are often left with very little more than opinions which we try to justify as scientific "hypothesis" based upon "facts" that seem so obvious to us. At the same time I feel rather strongly about recording a site as if no one else, professional or otherwise, will ever see that site intact again. Oftentimes, whether we like to admit it or not, this is the way of the real world. Sites are destroyed by nature or man, or at least severely impacted, before anyone, ourselves included, can revisit that site to record (or perhaps "re-record") more data.

By the same token, there seems to be one school of thought concerning recording cultural resources which apparently would rather have no information at all, or so it seems, than have sketchy or incomplete data: "Record the site my way or I don't want to know about it." It is the author's opinion that some information is better than none. This is not said without a considerable pause of reflection. It would do none of us any good to figure out how much time we have all wasted in trying to "rediscover" sites that did not have adequate information to begin with. So there is an inherent assumption herein that sites should be recorded "properly." Locational information is not at issue, especially in light of the fact that most of Colorado now has 7.5' USGS topographic maps available and that even a cheap compass, when properly used, can give one, when properly read, the most amazingly precise geometry.

What is at issue in this paper is how we record cultural affiliation in terms of "Ute" sites. Before proceeding further, the first question that should come to mind is "What are we calling Ute?" This is not any easy question to answer, but is central to the argument that will hopefully be developed. Though it is an artificial limitation to impose, for purposes of data management, let us keep the geographic area of concern here to Eagle and Garfield Counties. So that I might justly be accused of geographic and political ethnocentrism, this is the area I am most familiar with because this is where I practice and ply my art, the art of archaeology. Henceforth, when Ute is used it refers in a general sense to that set of cultural traits associated with recent (post 1650 A.D.) cultural history of Ute-Numic speakers. Wooden structures such as wickiups and ceramics exhibiting micaceous temper will be accepted as Ute as will rock art sites symbolically exhibiting any of these cultural traits, especially use of the horse. Because no diagnostic tool assemblage or point type has been established within any datable context for Ute occupation in Eagle or Garfield Counties,

diagnostics are not accepted as Ute within the framework of this paper. However, sites termed Ute by recorders will be so noted, though not accepted as Ute, unless criteria for such cultural affiliation are given. Until a time continuum with context can be established for post-Archaic sites in the author's area of responsibility, he will remain of this persuasion.

METHODOLOGY

Of the 438 cultural manifestations labeled Ute on file with the Colorado Preservation Office, only 16 (or 3%) are in Eagle County and 57 (or 13%) in Garfield County. The author was able to obtain 13 forms (or 81%) for Eagle County and 18 for Garfield (with 2 of these 18 being duplicates of another site) from his working set of site files at the Glenwood Springs Resource Area (GWSRA) office of the Bureau of Land Management (BLM). The original plan was to hand sort each record for various categories of information, such as cultural material in association with diagnostics (i.e., projectile point types), type of site and whether multicomponent, site condition and sampling strategies. No consideration was given as to who recorded the information because it was not deemed important for the purposes of this paper. Therefore, the sites were merely given consecutive numbers (see Figure 1). In this fashion, criticism is not leveled at individuals. The author admits to a strong personal prejudice against those who build themselves up at the expense of others who are not so fortunate as to have achieved such perfection. Upon completion of this procedure for Eagle County, the author abandoned such plans for Garfield County due to a number of reasons, which will be presented in order of assigned priority.

First, the results were rather disappointing (Figure 1). Based upon the author's criteria for Ute sites and looking at only that data on the site forms available to him, only three sites - 4, 9 and 13 - could be considered "Ute," which makes for a low figure of 23% of the forms looked at. Sites 1 and 3 with "glass trade beads," or just "beads," given with no supporting evidence (i.e., photographs, drawings, etc.) or apparent connection to the prehistoric material present at the sites, could not be considered "Ute."

Second, the factors of time and the computer age began to weigh upon the author. Perhaps you are already ahead of me at this point, which would not surprise me since I seem to be slowing down with age. But does it not seem believable that "the" computer could solve our problem here. After all, would it not be faster for "it" to tell us what we need to know, which at this point seems to be "What criteria are professionals using to call cultural manifestations Ute?" The only thing is, which computer? Since it took me half a day to sort through only 13 sites, why spend more valuable time when someone's computer can do it faster. Since the original printout of Ute sites came from the Colorado Preservation Office, why not take a trip to Denver? While in Denver I conferred with Jay Beyer who confirmed my belief that the state's computer system can only be considered as an index. It is not a research tool, no more than the Wang being used to "process" this paper is. We cannot rely upon modern man's marvelous miracles to bail us out of a bad situation. This was brought home even more to me when I decided to ask one of my associates to the north if he could help me out with my Ute problem. He told me he would love to but that the computer was down. Besides, he said, he doesn't have nearly all his sites digested yet (or perhaps it was digitized). This actually made me feel much better because it

FIGURE 1: THIRTEEN "UTE" OCCURRENCES IN EAGLE COUNTY

Material Culture in assoc. with manifestation	Diagnostics (i.e. projectile points)	Type of Site (MC=multi-component)	Misc'l (includes site condition)	Sampling Technique
1. glass trade beads	1 whole 1 tip no drawing/photo	seasonal camp		randomly collected
2. not given		not given	unknown site condition	collected
3. beads		habitation	eligible to NRHP vandalized condition	randomly collected
4. possible tipi stakes	"points" no drawing	camp, MC	photos of site with site form excellent condition	unknown
5. "tools"	1 mid-section no drawing	manufacturing	eroding site	unknown
6. white flint knife		isolate		unknown
7. corner notched Ute point fragment		isolate		unknown
8. mentioned but not given or listed		occupation	good condition photos with form hearth present	no collection
9.		tipi poles	excellent site condition	unknown
10. lithics	1 point	lithic scatter MC/with Archaic	"potentially eligible" to NRHP good site condition	diagnostics collected
11. mentioned but not given or listed	1 point	lithic scatter	in "need data" category extremely disturbed condition	diagnostics collected
12. not given	fragment: base	isolate		diagnostic collected
13. 72 micaceous sherds	none	short term camp	in "need data" category condition: light disturbance	collection: 80 percent grab sample

was becoming readily apparent that no one could tell me how many Ute sites they had in their data banks. Since this is the first year in which our resource area has received any funding for embarking upon the mammoth task of "putting all our sites into the computer," perhaps we should purify ourselves and make a sacrificial offering first. For unless we clean our own professional house in what we are field recording as "Ute," it goes without saying that we will have garbage for printouts because we have input garbage.

GARFIELD COUNTY

Only 16 (or 28%) of 57 site or isolate forms were directly available to the author for Garfield County, as stated previously. What to do? Make a few brief observations and then get on with conclusions and recommendations. Of these 16 sites the most information given with the forms that was convincingly Ute affiliated was provided by a Colorado Archaeological Society (CAS) volunteer. This gives the author a sense of pride since almost 1,000 hours of volunteer work was done for him by the Roaring Fork Chapter of CAS last year.

What was learned is sketchy at best but worth noting. Of these 16 sites, 2 were rock art with "Utish" elements, 1 site form listed micaceous pottery, 1 gave site type as a "hunting blind" (or platform), 1 listed site type as "Ute race track," 1 listed "cedar matting" as Ute, and 1 gave the Ute classification some credence because the diagnostic point was at least drawn on the site form. Also, two of the site forms recorded the same site. So, from the author's perspective, only four of the above sites would be considered Ute. What is worse, the one site most definitely Ute, 5GF308, which has contributed valuable information to at least two papers presented here today, is not even listed as Ute on the state's computer printout. The author alone takes blame for this because he has yet to write up his revaluation of the site based upon two days of testing conducted at the 60+ wickiup village in 1986, testing that was necessitated because illegal woodcutters destroyed some six wickiups that same year.

CONCLUSIONS

Where does this leave us? More specifically, where does this leave those of us who have a legal responsibility for managing cultural resources? With state-of-the-art technology rapidly becoming finally available to those of us field types who can envision an actual use for it, we should be in a better position to say something about site distribution in the lowlands (my assigned topic), or uplands (Mr. Nycamp's topic), or any lands for that matter. But, sad to say, we are not any better off and some might say we are worse off because the knowledge we have is both fragmentary and erroneous. We cannot very well manage ignorance. There is no one to blame but ourselves: "We have seen the enemy and they is us." We must assume responsibility for this sad state of affairs but, more importantly, we must find some course of action that will correct the situation.

RECOMMENDATIONS

Without action there is reaction which usually results in stagnation unless some direction can be given. So, here goes. Though incomplete and certainly imperfect, at the very least it is an attempt to focus our

attention in one direction. That direction is toward giving some criteria to what we will henceforth call Ute cultural manifestations.

First, a distinction should be made between historic Ute (for openers, post 1650 contact) and prehistoric Ute with a deliberate avoidance of the term "proto" historic. Probably Ute, possible Ute, or "Ute?" will not get the job done. Along with this, an honest discussion, be it visceral or cerebral, will be much more appreciated than statements made with no apparent reasons given as to what criteria are being used for calling the manifestation Ute, be it prehistoric or historic.

Second, since camels are supposed to be the result of horses being put together by committees, I am not going to suggest that we form a committee to "study the problem." But what I will suggest is that we develop some set of guidelines to guide us (not rules to rule us) in recording Ute sites. I would be glad to help with such an effort, but I can think of and name more qualified, indeed esteemed, colleagues capable of taking on and finishing such a task.

Last, until we are fortunate enough to excavate Ute sites in Eagle and Garfield counties, and thereby gain some temporal context in which to place these unique and fragile cultural resources, I will continue to refrain from filling out site forms with the word "Ute" unless my criteria are solid and convincing. Realizing that these resources are fast disappearing from a colorful Colorado scene that seems hell-bent on development at any cost (i.e., progress without purpose, oftentimes), there is a certain urgency about all this, but I must also make it clear that the haphazard use of the catchall term Ute for cultural manifestations that do not seem to fit other more convenient categories can no longer be tolerated. All of this has taught me a valuable lesson as a cultural resource manager. Reports and site forms that come under the jurisdictional boundaries for which I have responsibility will be scrutinized most carefully.

HISTORIC UTE CULTURE CHANGE IN WEST-CENTRAL COLORADO

by

Steven G. Baker

INTRODUCTION

This essay discusses the geneses of a model which should be of interest to archaeologists dealing with historic Ute sites on Colorado's western slope. It should be of particular utility to those who may wish to get more out of their work than simply describing assemblages as historic Ute. Describing an archaeological component as "historic Ute" contributes no more than a description of a prehistoric component as "prehistoric." It tells us nothing about culture history and change. The processes of culture change which were at work in the comparatively short span of the local historic period dramatically overshadow most of those of the thousands and thousands of years of prehistory in both complexity and magnitude. It would seem that most of us should already be aware of this fact, yet our regional archaeological literature lacks any archaeological cultural chronology for the historic period. The only such chronologies that are even generally applicable to this region are those of Opler (1971) and Malouf and Findlay (1986). A local chronology has not been developed because so little work has been done with historic Amerind sites of the area and the fact that most archaeologists are primarily involved in the prehistory. When compared to other regions of the United States, historic Indian archaeology of the eastern Great Basin is far behind. A major aspect of this also involves the ephemeral and impermanent nature of most historic occupations of the region when compared to the permanent architecture and refined technologies, such as ceramics, in the classic southwest. It also involves the realization that late precontact and early contact period sites are probably much more common than the more readily identifiable but fewer later Ute sites. This of course relates to dramatic population reductions which certainly occurred after white contact and the relatively short historic occupation period.

I have joined this symposium as a latecomer. I have, however, at the eleventh hour managed to capture the gist of my thoughts and hopefully organize them with enough rigor to present the basics of a model which should enable us to gain a reasonable perspective on the local Ute contact experience. As an exercise in local archaeology, it can also assist us in describing and measuring archaeological culture change within the Tabehauchi and Sabuagana Ute territories of West-Central Colorado. I have found it necessary to develop such a model because the ethnography and ethnohistory of the Utes has not been tailored for local archaeological applications. Most authors have addressed a more comprehensive Ute history and have not specifically addressed the Utes of West-Central Colorado. There is, however, a culture chronology and historic context which is specific to the Tabehauchi and Sabuagana Utes. This is different than that of the bands which became the Southern and Ute Mountain bands of southern Colorado as well as other Ute bands who resided further to the north and west. Archaeological comparisons from sites in the various bands' territories at selected chronological points in their cultural evolution should be a focus of archaeological efforts and

hopefully can be expedited by this model. This paper endeavors to bring out some salient points in the history of the Tabehauchis and Sabuaganas and discuss them in relation to other Ute bands. In doing so, it is anticipated that primary questions can be posed for archaeological analysis and testing.

The historic territories of the Tabehuachis and Sabuaganas conform very closely to the geographic area encompassed by the distinctive physiographic region designated as the "West-Central" in Colorado's Prehistoric Context research design project (Reed 1984). The western boundary is the Colorado/ Utah state line. The southern boundary is demarcated by the northern limit of the Anasazi culture or generally north of the San Juan Mountains and the headwaters of the San Miguel and Uncompahgre Rivers. The eastern boundary of the West-Central study area is the eastern limits of the Colorado Plateau geomorphic province and the northern limit is the Colorado River (Reed 1984:1). The historic Ute range, however, appears to have extended eastward toward the Continental Divide and the present discussion does consider this area in its treatment of the Tabehuachis and Sabuaganas.

In specifically addressing the Tabehauchi and Sabuagana, I am not intending to ignore the previous ethnohistorical work accomplished by other scholars of the Ute, most notably Omer Stewart (1942, 1952, 1966, 1971, and 1973). I do, however, recognize that the content of ethnohistory is usually structured according to the goals and interests of the writer. Like all areas of historical scholarship, it can also be significantly influenced by politics and the climate of published opinion (Skotheim 1969). For these reasons, good ethnohistory can be advantageously reorganized and viewed from an archaeologist's perspective. In this way ethnohistory can be of more direct utility to archaeologists. All of us here can point with great respect to the well known works of Stewart as cited above, and to the pioneering archaeological work of Bill Buckles (1971) as he initiated a direct historical approach to the Ute occupation of West-Central Colorado. Stewart and Buckles' work, combined with that of Anne Smith (1974), Marvin Opler (1940, 1971), Joseph Jorgenson (1964, 1972), and Callaway, Janetski, and Stewart (1986) have provided us with both data and lessons learned from attempted applications so that we can move forward in our collective efforts to study the Ute past. In outlining this model I hope that it will stimulate discussion and help foster a clearer focus on the local historic Ute occupation of the area. I also anticipate that it will be tested and accordingly revised and thereby assist in the growth of a robust historical archaeology of the Ute people.

One can frequently find site forms, brief published mentions, or archaeological gossip about historic Ute sites being found. These have seldom resulted in site reports which led to a better understanding of the Utes and changes in their culture. The papers presented at this symposium are among the first to give meaningful attention to the subject of historic Ute archaeology. Additionally, and of considerable importance, is the fact that at best the documentary record for the Utes of West-Central Colorado as opposed to the Southern Utes is almost non-existent for the early and middle phases of their contact experience. We simply do not have much in the way of ethnographic accounts from the earlier periods of Ute history. Most of the accounts we do have come from late in the Ute contact experience and to the unwary scholar can pose a real threat of misunderstanding the earlier Ute profile.

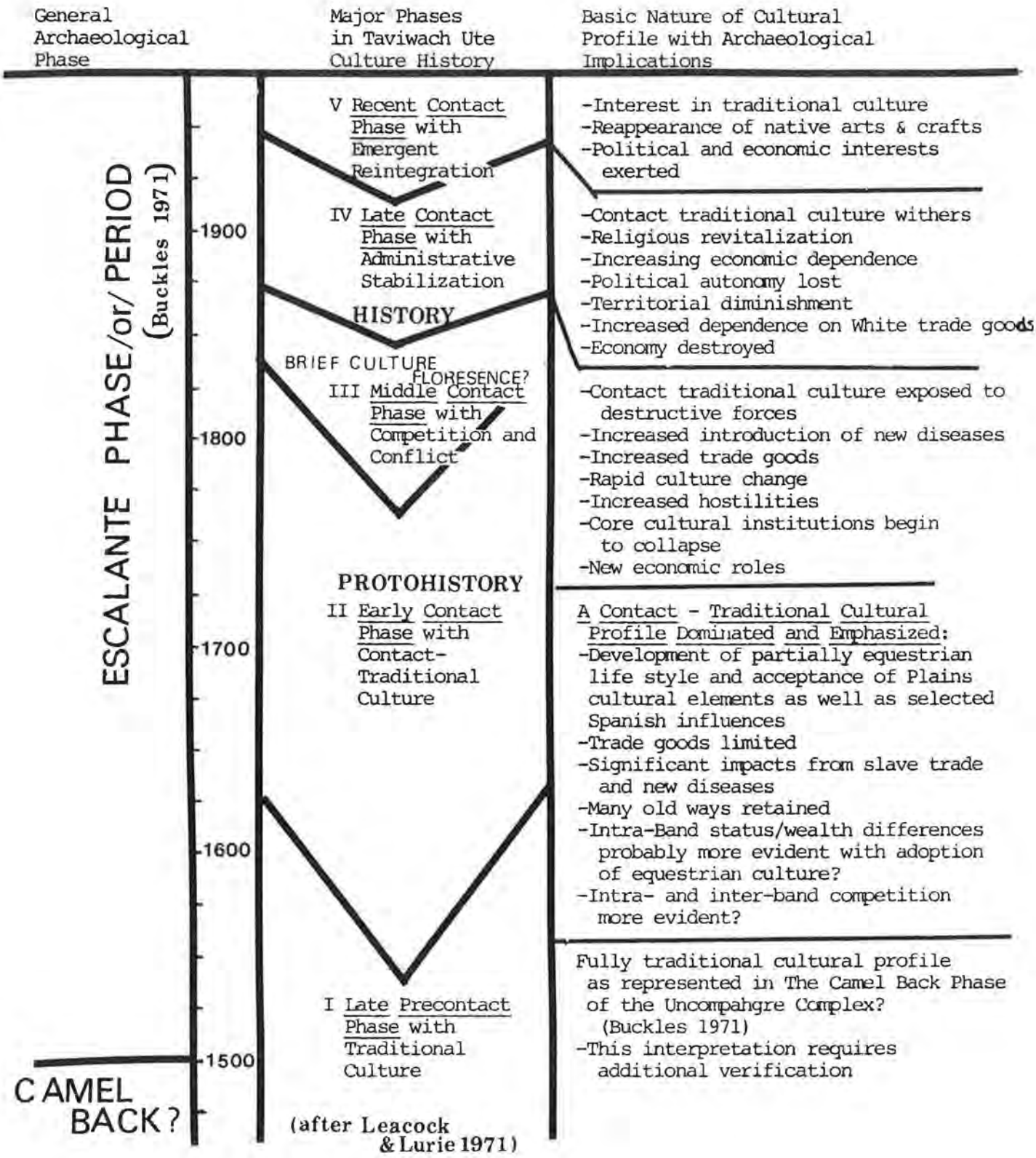
In order to compensate for the mentioned problems, I have relied on a three part process in formulating this model. This first of all involves direct reliance on what we know to have been repetitive patterns in the contact experience for nearly all Native American peoples. I believe this is best presented and supported by Eleanor Burke Leacock and Nancy O. Lurie in their excellent volume North American Indians in Historical Perspective (1971). In that volume, a model was presented which recognized five phases of Indian history. This scheme includes the Late Precontact, Early Contact, Middle Contact, Late Contact, and Recent Contact phases. I have diagrammed these phases and identified their salient characteristics in relation to the Tabehauchi and Sabuagana Utes in Table 1. In the Lurie and Leacock volume, Marvin Opler (1971) presented an article entitled "The Ute and Paiute Indians of the Great Basin Southern Rim." In his synthesis, Opler did not tightly gear his article to the model of the five phases. He did, however, demonstrate that the five phases are applicable to the Southern Utes. My own review indicates that the five phases are also quite readily applicable to what we know of Tabehauchi and Sabuagana cultural history as well. There are a few significant differences in respect to the baseline Ute culture history as presented in the writings of Opler (1971) and Stewart (1971, 1973), particularly in the assignment of individual band territories. The Southern Utes and Paiutes culture history cannot be directly applied to West-Central Colorado and the area for which so much is lacking in the way of ethnohistorical accounts. I have, therefore, taken the five phases and tested them against what little we do in fact have in the way of ethnohistory and archaeology about these people. I have finally tempered the emerging view with my own professional experience working with the five phases in relation to other peoples involved in an evolving frontier contact situation similar to that of the Utes (Baker 1974, 1975). In this regard, one has to further consider the dual forces of: 1) changing territorial boundaries and political/economic posturing of Indian peoples as they faced encroaching white frontiers, and 2) the rapidly changing economies and technologies reflected in trading patterns themselves. These at times worked to initiate rapid and dynamic changes in some groups on one hand and at times to allow for rather startling periods of cultural quiescence in other groups who were really not geographically too far removed.

The Utes were removed from West-Central Colorado in 1881 and, except for a possible refugee population and those of the Southern Ute and Ute Mountain reservations, local Ute history ended with removal. My present consideration commences with the late precontact phase of Tabehuachi and Sabuagana history and ends at the time of removal.

LATE PRECONTACT PHASE

Locally, for the Ute, the Late Precontact Phase (Table 1) probably lasted at least into the late 1500s and refers to a time when the Utes were untouched by white influences and when a fully traditional Ute cultural profile was in place. Exactly when the first white disease or trade bead made its way to West-Central Colorado will never be known. In the local area we also know very little about the late precontact archaeological culture. Buckles (Table 1) has implied that his Camel Back Phase of the Uncompahgre Complex may be derived from a late prehistoric occupation of West-Central Colorado (Buckles 1971). Buckles' concept of the Uncompahgre Complex (1971) as a local expression of the Desert Cultural Tradition (Jennings 1957, 1978,

Table 1. Phases of historic culture change for the Tabehuachi and Sabuagana Utes of west-central Colorado, 1500-1975.



1986) is not currently widely accepted, particularly in regard to its finer phase divisions. It is perhaps wisest to consider the local prehistory under the more general term "Uncompahgre Techno Complex" as advocated by Reed (1984), Horn, Reed and McDonald (1987), and Gooding and Shields (1985).

Reed has suggested that it is "appropriate to extrapolate" that Numic-speaking groups reached West-Central Colorado sometime between A.D. 1200 and 1400. Although his summary gives relatively clear evidence that Numic speakers were in the area in the early historic period (Reed 1984:43), the archaeological and linguistic data he uses to support his extrapolation on the time of their arrival are weak. At this time, the question of when the regional Ute occupation began is moot, because our data are simply insufficient to argue any part of this issue. There are, however, still no obvious reasons to doubt a long Ute presence as suggested by Buckles (1971) and summarized by Reed (1984:43). One of the most direct ways to approach the issue is to date the earliest potentially Ute brownware ceramics as will be discussed.

As it currently stands, north of the San Juans in West-Central Colorado, the historic period appears to have dawned in the 17th century with the Uncompahgre Techno-Complex in place as part of the Desert Culture Tradition of the larger Great Basin culture area (D'Azevedo 1986; Jennings 1957, 1978). The area is within the region of the Great Basin culture area normally ascribed to the Tabehuachi and later the Uncompahgre band of the Ute peoples who, like the Southern Paiute to the west and south, spoke a Numic language. There is, however, evidence to suggest that the region was originally divided among two or possibly three Ute bands including the Tabehuachi, the Sabuagana and/or the Elk Mountain Utes (Peterson 1977). There are some problems in the finer points of these assignments which require a full reappraisal.

So little archaeology has been accomplished at known Ute sites that it is not possible to formally describe the late precontact archaeological culture. The occurrence of small side-notched projectile points in association with Numic or Shoshonean ceramics is generally considered to hallmark Numic (Ute) occupations in the eastern Great Basin (see Fowler and Fowler 1981; Aikens and Madsen 1986; Callaway, Janetski, and Stewart 1986; Smith 1974; Buckles 1968, 1971:1248-1249; Reed 1984:43; Madsen 1975, 1986; Opler 1939; Holmer 1986:107; Holmer and Weder 1980; Eddy, Kane, and Nickens 1984: 104). The demonstrated presence of Uncompahgre Brownware ceramics (Buckles 1971) in association with a Desert Side-notched projectile point is believed to hallmark Component one at 5DT271 as a historic Ute site (Baker 1987, 1988). This site is the first comprehensively examined historic Ute site in the region and is in the area generally ascribed to the Tabehuachi Ute band (Callaway, Janetski, and Stewart 1986) and more specifically to the Sabuaganas (Chavez and Warner 1976; Peterson 1977). This point is not in dispute and there are no other likely ethnic/linguistic candidates to which to ascribe the component at 5DT271. This site dated to the 18th or early 19th century. The dating, location, and material culture of 5DT271 all indicate a Sabuagana Ute occupation as recorded by Escalante in 1776 (Chavez and Warner 1976; Bolton 1956; Stewart 1952).

While the information from 5DT271 is from the historic period, it is apparently from early in the local historic period prior to significant disruption of Ute culture by the white contact experience. Additionally,

if there were any errors in the dating of this component (Baker 1987:72-76), the component would be earlier, perhaps in the 17th century at the very start of the contact scenario outlined in Table 1. With these comments in mind, the excavation of Component one at 5DT271 probably comes very close to representing at least a portion of the late precontact and very early contact period Ute cultural profile in this area. It is one of the few such assemblages today reported in the literature. It is important to note that the assemblage contained both a Desert Side-notched projectile point and the brownware ceramics which are believed to hallmark Numic or Shoshonean occupations elsewhere in the Great Basin. On this basis, it seems reasonable to suggest that the late precontact Ute occupations of West-Central Colorado also evidenced these characteristics. It must also be mentioned that Frison has stated that distinctive small corner-notched projectile points in association with brownware ceramics are "unquestionably" associated with the prehistoric Shoshonean occupations of southern Wyoming (Frison 1978:246). In this regard, Component two at 5DT271, which underlies the historic Ute component, yielded a similar distinctive corner-notched ovate projectile point from the floor of a brush structure dating to A.D. 760±60 (Baker 1987). While this component yielded no ceramics, in keeping with Frison's view from Wyoming, it may in time be found to conform to a pattern in the regional prehistoric assemblages which may one day be identified as Ute.

Overall, the late prehistoric cultural profile is perhaps best understood in relation to Steward's portrait of Basin-Plateau aboriginal sociopolitical groups (Steward 1938) with appropriate adjustments in interpretation based on environment. Steward's work has been recently integrated into the excellent series of articles on the Great Basin in the Handbook of North American Indians (D'Azevedo 1986). It is necessary to stress, however, that much of what we think we know about the late precontact and early contact period comes from relatively late ethnographic recording and too frequently is uncritically assumed to apply to the earlier periods. The reality probably is that a great deal of this information only applies to an earlier historic profile, long after some considerable culture change had occurred. This is particularly likely in relation to the Utes and such issues as the manufacture of ceramics (Stewart 1942 and Callaway, Janetski, and Stewart 1986).

During this symposium, considerable emphasis has been placed on a view that there is little or no ethnographic record of Ute pottery making. Assuming for the moment that this were true, as Smith and Annand's work seem to dispute (Smith 1974:83-88; Annand 1967), it certainly does not in any way diminish the potential for a Ute ceramic tradition in the late precontact period. It is a general fact that simple brownware ceramics occur with some consistency throughout the known Ute range. They are, however, infrequent and a minor part of site assemblages. It does not appear that we are dealing with any particularly well developed ceramic tradition or a pattern of significant ceramic usage. It may be suggested that we are seeing a nascent Ute ceramic tradition which never became particularly well developed or important in the material culture assemblage. From what we know and can surmise about prehistoric Ute lifeways, baskets would seem to have better accommodated the lifestyle (Callaway, Janetski, and Stewart 1986:346-347). As a minor element in the Ute assemblage, ceramic manufacture and usage can be expected to have been easily lost as a cultural element very early in the contact experience. Ceramics are particularly unsuited to an equestrian or

other mobile lifestyle and are particularly sensitive to changes in settlement patterns and kinship as they might be affected by disease or fundamentally altered during major periods of culture change. As to source or inspiration for the nascent ceramic traditions, which I suspect was present in late prehistoric times, only time will tell.

At this moment, it appears that we have ceramics in the Ute material culture assemblage. In that respect they are fairly described as Ute, whether made by Utes, acquired by trade, or other patterns. The technology and inspiration may indeed have come from another source. This will reveal itself in time. For the moment, I believe archaeology can be best served by getting on with the process of describing the basic Ute archaeological culture including ceramics. There is one further comment which has to be made by someone. It is not inconceivable that instead of a nascent ceramic tradition, these local brownwares could reflect a decaying ceramic tradition, which at the time of contact was already being lost after some earlier period of florescence. In this writer's experience, when a highly developed ceramic tradition withers, it degenerates to the type of simple, unrefined ceramics we are seeing in the local Ute area (Baker 1972, 1973, 1974, 1975). If this were the case, the implications relative to the local Formative stage and the Fremont would be profound and need no further elaboration here (Reed 1984:30-43; Crane 1977, 1978, Baker 1987:148-151, 187-193).

EARLY CONTACT PHASE

For the Tabehuachi and Sabuagana, the white contact experience was initiated within their own protohistory as the concept has been discussed by Wilcox and Masse (1981:1,14) and encompassed the time between prehistory and the ethnographic present as it begins with the start of the recorded history of individual peoples. In this regard, protohistory is group specific and starting and ending points must be determined for each people being studied.

Locally in West-Central Colorado, steady white contact and access to trade goods in any quantity probably only occurred about the time the New Mexico trade was opened up in the early 19th century and Antoine Robidoux established his trading post on the Gunnison River near Delta in the 1820s or early 1830s (Auerbach 1941; Phillips 1961:534-536; Wallace 1953; and Scott 1982; Malouf and Findlay 1986:501-506). By selecting this location Robidoux had not only placed his establishment squarely on the trail to the Utah lakes country and ultimately Monterey, but also on the boundary between the territories of the Tabehuachi and Sabuagana Ute bands (Chavez and Warner 1976). While the nature of boundaries and the degree to which individual bands recognized territories can be debated (Service 1966:30-31; Tringham 1973:466), it is clear that some form of territoriality was acknowledged by the Utes (Callaway, Janetski, and Stewart 1986:336-340; Peterson 1977). For the Tabehuachi and Sabuagana Ute the protohistoric period should probably encompass the late 18th and early 19th centuries. This was a time of limited historical recording and a time when historical forces would have begun to be felt but many indigenous cultural traditions would still have been intact. A contact-traditional Ute culture would certainly have been present during this period but the society would have remained politically autonomous. Extensive trade goods usually accompanied the emergence of the succeeding Middle

Contact Phase with its emphasis on conflict and competition which was a period of large scale white settlement and serious conflict for most Indian peoples including the Utes.

In the beginning the Middle Contact Phase was probably also a time of comparative prosperity and cultural florescence for these people until they finally became impoverished reservation Indians. In western Colorado the Middle Contact Phase is felt to have only commenced in conjunction with the fur trade in the early 19th century. It fully developed and culminated only when mining became an issue in the 1860s and 1870s (Leacock and Lurie 1971:9,12; Malouf and Findlay 1986). Tabehuachi and Sabuagana Ute protohistory would have ended toward the middle of the 19th century. At this time historical records may pick them up in relation to the white settlement of Colorado under the term Elk Mountain and Uncompahgre Utes. There are, however, some difficulties in equating the Sabuagana with the Elk Mountain Ute just as there may be in fully equating the Tabehuachi with the Uncompahgre band (Stewart 1973; Peterson 1977). While these equations may eventually prove to be appropriate, the subject needs to be reconsidered in depth. This protohistoric period encompasses the entire Early Contact Phase as outlined in Table 1.

This view of the contact period assumes a fundamental difference between the nature and rates of culture change between the Southern Utes who lived south of the San Juan Mountains and the more northerly groups such as the Tabehuachi and Sabuagana (Opler 1971) of West-Central Colorado. The former clearly had a long history of more direct contact with the Spanish. I need to emphasize the common historical scenario whereby certain groups, usually those who were in closest proximity to the colonists, frequently became the first native market, sometimes trade brokers, and frequently pawns and military allies of the colonists. The classic examples are the Indian tribal roles in the colonial wars of the 17th and 18th centuries (Crane 1956; Trigger 1962). While the Utes were not seemingly involved as mercenary powers, they were clearly involved in the slave and skin trades. In these situations whole peoples ultimately would become unviable and be reduced to wards of the whites and become settlement or reservation Indians and lose trading and military importance. As long as a group or groups survived as a power or served as trade markets or the primary trade brokers, they tended to blunt away many of the effects of the contact experience for those peoples who were further down the trade paths, bypassed by colonial efforts, or geographically insulated by some substantial natural features such as mountain ranges. In their rush to attain and hold power whole groups were frequently destroyed wholesale or at least reduced to the status of an unviable socio-political force. Another group would invariably become a new market or ally and/or assume the role of broker or mercenary and would also in turn be decimated. At times this involved actual migration into the former broker group's territory.

The vanguard of the Indian trade and colonial frontier usually left behind it a string of decimated peoples as it moved down the trading and war paths and encountered new groups of still viable peoples. This is the perspective from which I have approached this model and is the perspective which I wish to ultimately see tested. This pattern also frequently brought names of newly emergent political groups into the documents while the previously used names would fall by the wayside. Occasionally, different names

were given to the same group but very frequently entire groups disappeared from the record because they in fact disappeared from history and their remnant populations were absorbed by other still viable groups. There is a frequent tendency to simply equate one group name with that of another in the same area at a later date. Without a good documentary basis to support the equation, this practice is dangerous ethnohistory and tends to obscure what was often really happening. It is also a very common practice. Entire peoples or bands were being lost. I suspect that more of this was happening among the Ute bands than has so far been acknowledged in ethnohistory. Campbell has pointed this out in relation to more southerly groups and his discussion is appropriate to the present discussion (Campbell 1983:347).

In the case of the Tabehuachi and Sabuagana Utes, their home territories were north of the San Juans and west of the Continental Divide at the time of the Dominguez-Escalante Expedition in 1776 (Chavez and Warner 1976). While, due to a lack of documentary materials, all the original Ute territorial dispositions are not felt to be as closely defined for the early contact years as we probably would like to believe (Callaway, Janetski, and Stewart 1986; Stewart 1971, 1973; Opler 1971; Smith 1974; and Peterson 1977). The home territories of these two groups were probably pretty much as outlined by Peterson in his Southwestern Lore article on the Tabehuachi and Elk Mountain Utes (Peterson 1977). While he equates the 18th century Sabuagana band found on Grand Mesa with the Elk Mountain Utes for the aforementioned reasons, I cannot yet accept this equation. Maybe it is viable, maybe it is not. It is, however, clear that as the 18th century closed, these peoples were probably situated pretty nearly as recorded by Dominguez and Escalante. In my understanding, the bands of the Southern Ute had absorbed the first impacts of the regional contact experience (Opler 1971) and hostile Utes were still restricting settlement of the Conejos land grant into the 18th century (McCourt 1975). If we rely on Goss's model of "fixing center of the earth" (Goss 1972) on a major natural landform we should expect the Tabehuachi to have had a territorial focus on the Uncompahgre Plateau and the Sabuagana on the Grand Mesa. I do not, however, mean to say that this was all their territory. I only mean to imply that their territory probably focused on or at least included these features and that they could have been found there. Thus, until trade really opened up to these people, they were relatively isolated. Their direct contact experience is hallmarked by the appearance of Antoine Robidoux who located his trading post on the Gunnison near its confluence with the Uncompahgre near present day Delta. Chance didn't simply lead him to this location. This location seems to have been on the territorial boundary between the Tabehuachi and Sabuagana on the major trade path which became the Old Spanish Trail between Santa Fe and Monterey. The appearance of permanent traders at this location was, I suspect, the catalyst which began to close these peoples' Early Contact Phase and ushered in their Middle Contact Phase. At this time their contact/traditional culture with its veneer of a plains like equestrian profile gave way to an even more equestrian culture emphasizing competition and conflict and plunged them full bore into the changes which led them to the reservation during the late contact experience only a few decades later.

As mentioned, in West-Central Colorado it is predicted that access to trade goods was still limited in the 18th century. Ribera's expedition of 1765 and the Dominguez and Escalante Expedition of 1776 were the first recorded white intrusions into the region, although some illicit Spanish

traders had also been among the Utes of the area. The extent of this trade and its impact on the local Utes is not well documented and is an important and viable area of inquiry for historical archaeology. Malouf and Findlay have discussed this (1986:600) and my own archaeological work thus far suggests that little substantial culture change accompanied it (Baker 1987, 1988).

Even though some authorities have implied that significant culture change accompanied the early Spanish contacts (Opler 1971 and Stewart 1966, 1973), as opposed to the Southern Ute bands, the nature and degree of impact on the Tabehuachi and Sabuagana Utes is uncertain, just as it is for the Chemehueui and Southern Paiutes to the west on the Old Mojave Trail (Fowler and Fowler 1981:150-153). There it seems that trade goods were probably not conspicuous in the Southern Paiute material culture assemblage prior to 1776. Spanish impacts there would have been conspicuous in the introduction of new cultigens, disease, and slave raiding. Most trade goods there postdate 1776 and were often unimportant to some groups until the 1870s. The situation is believed by this writer to have been somewhat similar for the more removed Utes, that is to say, the Utes further from the Spanish settlements. There is little question that the bands which became the Southern Utes were clearly brokers in the Spanish horse and slave trade as described by Opler (1971) and Stewart (1966); (also see Callaway, Janetski, and Stewart 1986). There is, however, considerable room to question the extent to which Spanish trade goods and influences in the Tabehuachi and Sabuagana's own local protohistoric period had altered traditional Ute society and culture prior to the middle 19th century. This is despite the knowledge that some had horses in 1776 (Chavez and Warner 1976) and the lumping of the entire historic period into one archaeological phase (Buckles 1971). As outlined in Table 1, archaeologists must recognize additional cultural phases within the Tabehuachi, Sabuaganas, and other Ute bands culture history. The very broad use of the Escalante Phase proposed by Buckles for the Utes history is only useful in a very general way. It cannot be used as an archaeological phase without recognizing further subphases which were very real in Ute culture history. In this regard it is critical to meaningful archaeological study of any group to bear in mind the concept of "protohistory" in relation to the groups being studied. The protohistorical period refers to different times and to very specific histories for the Tabehuachi and Sabuagana bands that is somewhat distinct from that of bands from further south and closer to the Spanish culture sphere.

The Early Contact Phase would have witnessed development of a contact-traditional cultural profile as discussed in my report on the Roatcap Game Trail Site (Baker 1987) where the archaeological assemblage lacked trade goods and was wholly aboriginal. As described by Leacock:

> Phase II commences with early contacts, either directly with explorers, missionaries, and traders or indirectly with goods traded through neighboring tribes. The extent to which a reintegration of Indian institutions followed these first contacts has often been underestimated. It has been all too common for anthropologists to assume that the cultural information they were gathering from elders about lifestyles that stretched back to the beginning of the 19th century and even earlier represented pre-Columbian society. Cases in point are the assumptions that individualized

> patterns of fur trapping in the north woods and the virtually total dependence on the buffalo in the Plains were aboriginal. Indian-white contacts during this phase, which extended over several generations for most Indian societies, were relatively equal and commonly of a mutually beneficial nature. The common Indian preference for contractual relationships with whites - as reflective of interacting but not merging societies - may well stem from this early period. So also may concepts of the "golden age" that Indians still dream of recapturing with modifications appropriate to modern conditions.
>
> [Leacock 1971:11]

As mentioned, for the Sabuagana and perhaps the Tabehuachi Utes, the Early Contact Phase certainly brought different rates and patterns of culture change than it did for the bands which became the Southern Utes for instance. The Phase probably began with indirect contacts as early as the 16th century but would probably not have witnessed significant impacts, other than disease, until late in the 18th century when the Indian slave trade began to escalate. The dates at which the slave trade began to impact the various Ute peoples is not really known, although it seems that Spanish contact did not begin to impact more remote peoples, such as the Southern Paiutes and Chemehuevi until the late 18th and early 19th centuries. While some of the Ute and the Navajo people had been in close contact with the Spanish settlements during the 17th and 18th centuries, this was not necessarily the case for the Sabuagana and Tabehuachi Utes who like the Southern Paiutes lay astride a major trading path, although not so far away as the Paiute. The Old Spanish Trail did not really open for commerce until the 1830s. Like the Southern Paiutes, the Tabehuachis and Sabuaganas may well have abandoned parts of their territories in order to escape the slave trade which gained impetus in the early 19th century. The actual role of the Sabuagana and Tabehuachi people in the slave trade is not known but along with disease it certainly would have been one of the most serious sources of cultural change of the Early Contact Period (Kelly and Fowler 1986:386-387; Malouf and Findlay 1986:501-503). In addition to the proximity of demes and bands to the Spanish settlements, the proximity of such groups to a trading route or line of march of an expedition, such as that of Dominguez and Escalante in 1776 or Rivera in 1765, very strongly affected the flow of trade goods and the course of acculturation in the early contact experience (DePratter and Smith 1980).

Following the Pueblo revolt of 1680 (Simmons 1979:186-187; Sando 1979), Utes who had been slaves among the Spanish began trading horses to the north along the western edge of the Rockies and were responsible for introducing an equestrian lifestyle to peoples far to the north and west (Shimkin 1986; Stewart 1966, 1973; Opler 1971). It is the documented presence of mounted Sabuagana Utes as documented in 1776 by Dominguez and Escalante which has given rise to the notion that these and the Tabehuachi people were as deeply involved in an equestrian lifestyle as some of the bands of the Southern Ute (Opler 1971; Smith 1974:17-22; Chavez and Warner 1976:29).

Smith discussed the equestrian impact on the Utes and drew a marked distinction between those who ranged closest to the Spanish settlements (Moache and Capote) and probably acquired horses early in the 17th century. In this regard she stated:

> It is not clear that any bands of Utes at any time were fully equestrian, i.e., that they had sufficient horses so that everyone, including women and children, were mounted. The picture of the Utes as mounted warriors is true only for the Southern Ute bands, and for them only to a limited degree as Opler's statement shows. The White River and Uncompahgre bands only ventured on the plains to hunt buffalo and raid for horses, and then returned to the mountains as fast as possible. They and the Southern Ute bands feared attack by the Cheyenne and Arapaho on the plains. Because little has been known until recently of Northern Ute cultures and because most museum collections consist of typical Plains items gathered from Colorado Utes in the latter part of the 19th century, it has been possible for some ethnographers to picture the Utes as two different peoples: one horse nomads, the other pedestrian hunters and gatherers. The true picture is that of one people with a basically Basin culture, with a veneer of Plains culture in Colorado, which becomes thinner (and more recent) as you move from the Southern Ute bands to the White River and on over into Utah. As Goss has said (1961, p. 2), "A man may put on a new hat but it doesn't necessarily change the way he thinks."
>
> [Smith 1974:20-21]

Smith's comments are quite pertinent to gaining some understanding of the Tabehuachis and Sabuaganas early contact experience. The impacts of the slave trade, veneer of an equestrian lifestyle, and new diseases would certainly have led to development of a contact-traditional culture. This is believed to have embodied degrees of acceptance of cultural elements from the Plains and the Spanish Southwest. It may also reasonably be suspected that access to horses and perhaps other particularly scarce and valuable trade goods would have led to intraband status and wealth differences. These in turn could have caused both intra- and inter-band competition. This is a common pattern in the early contact experience of most North American Indian peoples and was the common ingredient in internecine warfare (Baker 1974, 1975). Such a pattern may well explain the ultimate emergence of the Tabehuachi Utes as regional leaders at the end of the Middle Contact Phase when they emerged as political spokesmen for the Ute peoples ostensibly under the name of Uncompahgre Utes (Callaway, Janetski, and Stewart 1986:334, 335). A fortuitous occupation on a major trade route, for instance, often placed a group in a temporarily dominant position. Often the resulting competition would see such a group destroyed. Another would soon become the "middle man" in the Indian trade and would soon in turn be destroyed (Bolton 1950:73; Crane 1956; Trigger 1962). This in turn brought them into the Late Contact Phase with the beginning of administrative stabilization during which the contact-traditional culture rapidly withered away. Inherent in Smith's foregoing comment is that the core of Ute culture was still typical of that of the rest of the Great Basin with its Desert Cultural Tradition as it may have been locally reflected in Buckles" (1971) Uncompahgre Complex or what regional archaeologists are preferring to call the Uncompahgre Techno-Complex.

Recent archaeological work (Baker 1987) on the southeast flank of Grand Mesa in the drainage of the North Fork of the Gunnison has resulted in a small but important body of archaeological data relative to the Early Contact Phase in the area which Escalante and Dominguez found the Sabuagana Utes in

1776 (Chavez and Warner 1976). At the Roatcap Game Trail Site (5DT271), Component one yielded a slab-lined hearth surrounded by discrete butchering areas where parts of nine or more elk, deer, and bison were processed. The component has been interpreted as a limited seasonal occupation by a walking Sabuagana Ute household which was participating as part of a deme cluster in procurement activities emphasizing hunting. The faunal assemblage evidenced a consistent pattern of meat distribution that was probably kinship based. The component's living surface lay just beneath the sod and a comprehensive assemblage of utilized flake and other lithic butchering tools from the female activity kit was recovered from this surface along with other tools related to food processing and acquisition. This included brownware pottery and a Desert Side-notched projectile point. No white trade items were recovered in the assemblage. The occupation has been bracketed within the 18th and early 19th centuries and most likely dates within the first few decades of the 19th century. The assemblage is notable because of its preservation, comprehensiveness, purity of functional and ethnic association, and its placement within this model of local historic Ute culture change. The summer/fall occupation is believed to be a wickiup focused seasonal residential base from late in the Early Contact Period prior to the predicted extensive disruptions of the contact/traditional culture system (Baker 1987, 1988). This component provides one of the first reasonably dated and comprehensive examined historic components that can with confidence be attributed to a Ute occupation. In this regard, it adds to the limited body of local historic Ute archaeological data provided by Buckles (1971) and the Huschers (Huscher and Huscher 1939).

In light of Reed's commentary on the lack of excavated historic Ute sites (Reed 1984:44-45), the Roatcap Game Trail Site is believed to be of importance in the collective efforts to bring historic Ute archaeology into clearer focus in this region. The site seems to confirm that Desert Side-notched projectile points and brownware ceramics may indeed hallmark Numic sites in the region. Additionally, the lack of recovered trade goods and indications for a presumably traditional kinship based meat distribution system suggest that contact-traditional culture was still intact relatively late in the Early Contact Phase. The only potential changes in this interpretation seems to be in the area of dating. If the dendrochronologically calibrated radiocarbon dates are not wholly accurate, then the site would be earlier than the suggested 18th or earlier 19th century ones. As it now stands, these calibrations indicate that the occupation could not be prior to 1650 for Beta 18088 (140-50 B.P.) and Beta 20209 (70-60 B.P.). A detailed discussion of the dating may be found in Baker (1987:72-76). Dendrochronology of living trees over the hearth indicates that the occupation has to date prior to 1858. If earlier than the suggested late 18th or early 19th century, the component could conceivably date into the 17th century where it would still represent the Early Contact Phase/Protohistoric Period. It is suggested that excavations at additional Ute sites from this time period will provide a test of the interpretation of the Roatcap Game Trail Site and the validity of the model for the Early Contact Phase.

MIDDLE CONTACT PHASE

Nearly all Amerind peoples ended their Early Contact phases with markedly reduced populations and with considerable stress being exerted on core institutions of the contact traditional cultures, particularly in the

areas of economics, kinship, and religion. As indicated in Table 1, the Middle Contact Phase in West-Central Colorado marks the end of the local protohistory and initiated a period of better records and more direct contact with whites. This short lived phase lasted for only a few decades from the time the fur traders were established in their midst until after the first reservations were established in the 1860s and the Utes were removed in 1881. The period would have been marked by heightened levels of conflict and competition both with whites and with other Indians. The Ute bands of Colorado during this phase emphasized hunting and raiding and up until 1850 had been little affected by actual white expansion (Callaway, Janetski, and Stewart 1986:355). There can be little doubt that competition in both hunting and raiding was probably encouraged by the intensification of the skin and slave trade (Malouf and Findlay 1986; Crane 1956; Trigger 1962; Bolton 1950:73; and Baker 1974). By this time populations would have been lowered dramatically from what they would have been at the time of initial contact, primarily because of disease. It is impossible to determine what the original population levels were, but it seems reasonable to state that Ute sites from this time period appear to be quite rare and probably will never be identified with anywhere near the frequency of late precontact and protohistoric Ute sites of the Early Contact Phase.

During the Middle Contact Phase the Tabehuachi and Sabuagana bands probably developed a more equestrian profile. There was, however, clearly considerable variability in adoption of the horse by Great Basin peoples. Environmental constraints for pasturage certainly were significant concerns, particularly in the vicinity of major trading routes which seem to have witnessed significant ecological damage. This in turn may have caused conflicts over territories and some migrations and thus contributed to some of the suspected confusion in designating territories for various bands (Malouf and Findlay 1986:506; Shimkin 1986:521).

There is no question that the horse was an important aspect of Tabehuachi and Sabuagana culture, particularly by about 1830 when the horse had spread to all ecologically possible areas. The spread of the horse stimulated trade, internecine raiding, and slaving (Shimkin 1986:519-521). As discussed by Shimkin, the horse was an element of Great Basin Indian culture:

> ...even in marginal areas, by the early nineteenth century. The horse stimulated cultural elaboration, trade, and warfare but also depleted limited range capacities, often competing directly for the Indians' seed supplies. Mobile bands, cavalry warfare, chieftainship, and allied traits were present as an unstable admixture to the simpler institutions of foot Indians. Except in a few localities, equestrianism was limited by shortages of fodder and water. Its most destructive ultimate effect was the facilitating of Anglo-American trapping and settlement, and it was to be eliminated or transformed into a vehicle of hopeless resistance as trappers penetrated and devastated the area (Hafen 1965:1).
>
> [Shimkin 1986:521]

The degree to which the Tabehuachi and Sabuagana Utes were participating in an equestrian lifestyle and the extent of their cultural evolution toward a fully equestrian society can ultimately be gauged by historical archaeology if sites from this period can be found, tightly dated, and comprehensively

examined. This issue should be a priority in regional archaeological studies. It does not seem likely that the Tabehuachi and Sabuagana ever developed a fully equestrian society as Smith (1974) has discussed. This is in contrast to groups such as the Southern Ute bands which had a more highly developed equestrian profile that still did not seemingly evolve to the same level as groups such as the Commanchi on the plains (Opler 1971:273-274). The very rugged habitat of West-Central Colorado allows for only limited use of horses along tightly defined travel routes, such as that of the Uncompahgre-Gunnison valleys and major trails such as the valley route of the Old Spanish Trail. This consideration and the potential for limited winter pasturage may well have worked against development of a fully equestrian lifestyle. The high mountain parks with their excellent pastures would certainly have been good seasonal locations for partially equestrian bands, just as noted by the Escalante-Dominguez expedition on Grand Mesa (Chavez and Warner 1976). Even then, however, in addition to teepees, specific reference was made to wickiups. In keeping with Smith's admonition (1974:20-21), it is important that we ask to what extent our notions about equestrian Utes may have been inspired by the bands of the Southern Utes and general plains like equestrian cultures in general. West-Central Colorado is not good horse country and one's ability to travel is even today very limited when compared to the potential offered by "Shanks Horses."

The extensive trade opportunities which developed during this phase would have brought about a substantial infusion of trade items which would have affected the culture in a major way as outlined by Quimby (1966:9-11). This would have been substantial enough to have left a clear historic hallmark on the archaeological assemblages. It is during this period that the Utes would have developed their equestrian profile to the fullest. It also may be viewed as the period of florescence of the historic Ute culture and we may be dealing with a local archaeological horizon in a more Plains-like historic cultural profile and its classic elements of dress, decorations, and equestrian equipage. As proposed in Table 1, the period also would have brought the culture into more direct contact with whites and pressures on it would have reached their highest levels. New economic roles probably emerged for both men and women as the economy of the skin and slave trade intensified. Until this phase began to wane and conflict gave way to attempts at governmental stabilization, this would have been the "Golden Age" that many Indians still dream of recapturing as considered by Leacock (1971:11). This short lived phase is, however, one of the least known and the one which archaeology has some strong potential to illuminate if good sites can be found.

LATE CONTACT PHASE

In West-Central Colorado the basic profile of the Middle Contact Phase would have continued into the Late Contact Phase when the first attempts at governmental administrative stabilization were made. At this point, the protohistory of the region fully gives over to recorded history and much of what we know about the local Utes comes from this period. Attempts at administrative stabilization first occurred in 1863 although New Mexico had unsuccessfully attempted to establish treaties which would require Colorado Utes to leave New Mexico. It is, however, not clear if bands from West-Central Colorado were involved. The 1863 treaties did involve the Tabehuachi and White River bands. The Southern Ute bands did not participate in this

treaty. The outcome of this treaty was that the Tabehuachi and White River bands succeeded in temporarily retaining their home territories in western Colorado. In 1868 another treaty was signed and established the White River and Los Pinos agencies. The Tabehuachi band's administrative center, Los Pinos, was ultimately established high in the mountains near the Continental Divide at Saguache. This agency was moved to the Uncompahgre Valley near Colona in Montrose County in 1876. Nowhere does the Sabuagana band seem to appear in these treaties and its fate is currently uncertain, although a remnant population may have been residing near Paonia on the North Fork of the Gunnison at the time of removal. It seems most likely that the remnants of this band were probably absorbed into either the White River band or the Tabehuachi band. The latter became known as the Taviwach and after the agency was moved to the Uncompahgre they were known as the Uncompahgare band. Solid discussions of this portion of local Ute history may be found in Stewart (1973) and Callaway, Janetski, and Stewart (1986:355).

The opening of the San Juan mining frontier resulted in yet another treaty. The Brunot Agreement of 1873 reduced the reservation again and pushed the Ute boundary north of the San Juans. In 1881 the Uncompahgre band was removed to Utah out of fears deriving from the Meeker Massacre at the White River agency and increasing pressure from white settlers. Fort Crawford was established near the Los Pinos agency at Colona. A garrison was maintained there for the next decade, ostensibly to protect local settlers from a return of the Utes. There are limited hints that Utes occasionally returned to visit the Uncompahgre Valley. Local folklore and popular accounts indicate that Chipeta, wife of Ouray, the prominent Ute leader, along with others in her travel party, made repeated pilgrimages to the area (Smith 1986:194-207; Rockwell 1956:182-188; O'Neil 1971). Also, as Omer Stewart has pointed out in this symposium, Utes from the Utah reservations occasionally made trips back into Colorado and caused panic among the whites. It is also probable that there were scattered Ute refugees who remained after the removal just as occurred in better known cases such as the Navajo (Brugge 1983:491-494) and the Cherokees (Finger 1984) where a substantial population managed to avoid the Trail of Tears to Oklahoma and became known as the Eastern Cherokees. It is important to note that only 361 Uncompahgre Utes were removed to Utah in 1881 (Callaway, Janetski, and Stewart 1986:355). This small number could only have been a shadow of the population which once peopled West-Central Colorado and their archaeological sites will accordingly be small in number. This fact will probably serve to significantly constrain archaeological potential for this phase of local Ute history. The Late Contact Phase and efforts at administrative stabilization, of course, continued after the removal to Utah (O'Neil 1971).

The removal to Utah in 1881 for all practical purposes closes the Ute archaeological record in West-Central Colorado. Archaeologists should be alert to the potential for encountering relatively late and rare Ute sites which could relate to Ute refugees who may have escaped the removal to Utah. There is also some limited potential for sites deriving from known Indians and conceivably Hispanic settlers who may have been farming in the region at the time the Ute agency was transferred to the Uncompahgre Valley in 1876. Any consideration of the recent Contact Phase as it involved the concept of emergent reintegration is outside the scope of West-Central Colorado and will not be discussed in this paper.

Prior to the 1863 Conejos Cession, a substantial part of the Ute occupation seems to have been around the San Luis Valley. This issue is presently still not clear because Ute representation was unequal at Conejos. The intent was, however, to clear the San Luis Valley for intensified white settlement. The end product was to force a westward movement of the Tabehuachi until they were again focused in the Uncompahgre Valley, an area generally believed to have been the original Tabehuachi home territory as recorded by Escalante and Dominguez in 1776 (Chavez and Warner 1976; Stewart 1973). The administrative center was to be the Los Pinos agency on Los Pinos Creek near present day Saguache, Colorado. This location was high on the divide between the Gunnison and Rio Grande. Although the agency served as the reservation headquarters until it was moved to the Uncompahgre in the winter of 1875-1876, it was not apparently very successful in guiding the Utes into the hoped for role of becoming farmers and herders. The intention was to accomplish this by providing clothing, food, and agricultural equipment. Little attention appears to have been given to the mountainous environment which was not conducive to farming. The cold winters forced the Utes to seasonally move away from this agency and helped precipitate the move to the Uncompahgre Valley where they were even then annually wintering (LROIA 1874). Stewart has placed the Tabehuachi Ute population at about 2,000 in 1879 (Stewart 1973:11-12; Baker 1978). The final decision to move the Los Pinos agency was made in 1875 and required that a choice be made between Cebolla or the Uncompahgre Valley. Most Utes, including Chief Ouray, are said to have favored the Uncompahgre Valley because it was comfortable climatically in both winter and summer, agriculture was possible there, and cattle could be pastured in the area without any need for a cow camp to be located away from the agency (LROIA 1875). During the summer of 1875, Agent Bond of Los Pinos accompanied Chief Ouray on a visit to the Uncompahgre Valley. At that time Indians purportedly were already irrigating a one mile square tract and were growing small patches of corn and beans. The valley was level enough for efficient irrigation and was described as about 20 miles long and one mile wide in the area about Montrose where Bond seems to have entered the valley. The vicinity of present day Colona in Ouray County was determined to be ideal for locating the agency. Pine trees for lumber were abundant near the river, gypsum for use as plaster was located nearby, and the earth and climate were both considered suitable for adobe buildings. The Colona location was also preferred because it would put the agency in the very heart of the reservation where it would be easier to keep the Utes away from white settlers on the reservation borders (LROIA 1875; Jocknick 1913:152; Baker 1978).

A cabin and corral for the agency cow camp were built in 1875 on the left bank of Cow Creek about six miles south of the agency (LROIA 1875). A sawmill was established in the mountains near the agency to provide lumber and Mexicans were contracted to produce 300,000 adobe bricks needed in the construction (LROIA 1875, 1877, 1978; Jocknick 1983:82; Baker 1978).

Chief Ouray's ranch was nine miles north of the agency near present day Montrose. During the summer of 1876 he hired Mexican laborers to build an adobe house there for him. This remained his main home until his death in 1880. There is some evidence, namely a historic photo attributed to Jackson, that Ouray also (ca. 1880) may have had an adobe home at the hot springs in the mining camp of Ouray (Jones and Jones 1975:70). Chief Ouray's Montrose homestead was the nucleus of an Indian settlement which probably consisted of

a few Utes who were rapidly departing from more traditional lifestyles (LROIA 1876, 1878). His farm was described as the "grand center of Ute interest" and the focus of all local trails (Ingersoll 1883:276). This site is known to have contained a number of buildings other than the Chief's homestead (U.S. Surveyor General's Office - 48N, 9W, 1891). At the time of the move to the Uncompahgre, Ouray believed many other Utes would want to homestead also. He did, though, in 1878 recommend that it would be unwise to distribute agricultural tools to the Utes because of their nomadic nature (LROIA 1878). Among these, Shavano, a very prominent Ute, was at this time giving consideration to the idea and hired one Mexican to start the work. Ouray was actively farming and employed two Mexicans. For the most part, the Utes were pretty widely scattered, so much so that a census effort in the fall of 1877 failed completely. Shavano's home and associated village were a few miles south of the agency, seemingly on Cow Creek. His home was probably one of the two or three little houses south of the agency which were described as having belonged to Ute headmen before the removal (Ingersoll 1883). At this writing, all the aforementioned Ute sites, with the exception of Shavano's home and village, have been found and are currently in the process of being formally archaeologically inventoried and evaluated by the writer as part of the Uncompahgre Valley Historic Ute project which is sponsored by Centuries Research of Montrose. It is important to note that Mexican labor was used by both Indian leaders and agency personnel. This may indicate a small local Mexican or Genizaro population was resident in the valley (Chavez 1979).

A small band of Utes, quite possibly a remnant of the Abauagana band, was residing on a tributary of the Gunnison 60 miles from the agency. This appears to have been the village at Paonia or Angevine Creek below Paonia. This group was reported to have had 100 acres under cultivation and were raising horses, cattle, sheep, and goats (Ouray Times September 7, 1878; Rockwell 1945:23-24). Buckles (1971:1259) mentions oral accounts of settlers recorded by the Huschers (1939:112) in which Utes on the Gunnison just prior to removal utilized "winter houses." These were said to be a cedar post "stockade-cabin" plastered with adobe. These were purportedly on the North Fork of the Gunnison. These people were said to be cultivating corn and used sandstone slab "tortilla griddles." This limited information on the Gunnison settlement(s) does appear to be consistent from source to source and points to an occupational focus in the Paonia area. This appears to have involved a Genizaro like profile in contrast to the more general notion that the Utes were equestrian nomads and were not settled farmers. None of these Gunnison Valley sites have been relocated or archaeologically identified. They do offer an excellent goal for local survey efforts.

The general population estimate for the Uncompahgre Utes was about 2,000 in 1878. The Indians were then tending some stock, including 150 cattle, 5,500 horses, 25 mules, 4,500 sheep, and 1,500 goats. Although some Utes were at least involved in herding, as a group they were described as wholly nomadic and apparently heavily involved in an equestrian lifestyle with roughly three horses per person. They were said to have routinely stayed in camps 25 or more miles from the agency and only came to the agency for rations. Their stays at the agency were usually only three or four days but occasionally lasted 10 to 15 days. By January 1879, 1,300 to 1,400 Utes were receiving rations at the agency. Only a few, such as Charley Galata who may have been a Genizaro, who grew excellent potatoes a few miles from the agency, were engaged in farming. One observer stated that the Utes "roam

> Sunday morning the Utes bid adieu to their old hunting grounds and folded their tents, rounded up their dogs, sheep, goats, ponies, and traps, and took up the line of march for their new reservation, followed by General MacKenzie and his troops. This is an event that has long and devoutly been prayed for by our people. How joyful it sounds and with what satisfaction one can say, "The Utes have gone."
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> [Nankivell 1934:61]

The former Ute reservation was officially declared public land in the Ute Reservation Bill of 1882. This was simply the congressionally approved Ute Bill which had been signed by the President in 1880. Under terms of this bill, homesteads could not be established under the Homestead Act. Instead, only cash entries would entitle a person to lands. Although the former reservation was not legally open to settlement until 1882, homesteaders and miners rushed onto the reservation even before the Utes had been fully removed. By the fall of 1881, nearly all the desirable land in the former reservation had been staked. In December of that year the Solid Muldoon stated that ranchers on the reservation were building comfortable residences and were planning to expand production beyond the former scope of simple vegetable farming (Solid Muldoon 12/2/1881). Otto Mears stated in January 1882 that "I doubt if there is a decent site for a ranch in either the valleys of the Uncompahgre, Gunnison, or Grand Rivers that has not already been taken up" (Baker 1978).

The Utes and their reservation were gone and the pendulum of history swung to mining with attendant transportation and supply services and agricultural homesteading as major themes of the Uncompahgre Valley (Borland 1951; Goodykoontz 1927). The only major feature from the reservation period to remain active in the valley was the cantonment on the Uncompahgre. The military presence had bolstered the confidence of the settlers at the time of the Ute removal. Public sentiment and local economics made it important to retain the military presence. The cantonment became known as Fort Crawford in December 1886, and the fort was continued long after it was needed. The troops were finally ordered withdrawn in April 1890 and by December of that year it was declared surplus and of no military use (Nankivell 1934).

The limited documentation for the Utes immediately prior to removal suggests the presence of two cultural profiles and possibly two distinct peoples. One is that a much less acculturated people who probably evidence more of a contact-traditional lifestyle involving a substantial equestrian aspect and a more nomadic profile that largely conforms to the stereotypical Plains Indians. The Pariette Draw burial from northeast Utah (Fike and Phillips 1984) would seem to present an excellent example of these people who probably constituted the bulk of the Ute people. Of the 2,000 Uncompahgre Utes recorded in 1878, it is possible these people were not accounted for in the removal to Utah since only 361 made the trip in 1881 (Callaway, Janetski, and Stewart 1986:355). The well known period photos of teepee camps and a beaded and buckskinned equestrian people is somewhat representative of them. It should not, however, be overlooked that many of these photos may have been posed and some were apparently taken at gatherings around the agency when ration day may have brought people together in government issued canvas teepees. Such gatherings could well have stimulated them to dress their best and unintentionally convey a ghostly image of a way of life and look of

native prosperity that was already well past. In this regard, one should note that John Wesley Powell apparently embellished his photos of the Kaibab (Fowler and Fowler 1971:67-68). This is not intended to imply that the available photos of the Utes were faked, only that they may not reflect the actuality. Even the well known photos of Chief Ouray often show him in a contact-traditional bead and buckskin garb. Photos exist that show him not only in a "suit" but in much less formal white attire as well (Ouray County Plaindealer, April 14, 1988).

In contrast to the late contact-traditional equestrian profile which, I suggest, the majority of the Utes still reflected at the time of removal, there was another aspect which more closely conforms to that of the Genizaro of New Mexico (Chavez 1979; Horvath 1977, 1979). As described by Chavez:

> Genizaro was a specialized ethnic term current in New Mexico during the eighteenth and early nineteenth centuries. It was used by the local Hispanic folk to designate North American Indians of mixed tribal derivation living among them in Spanish fashion - that is, having Spanish surnames from their former masters, Christian names through baptism in the Roman Catholic faith, speaking a simple form of Spanish, and living together in special communities or sprinkled among the Hispanic towns and ranchos.
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> [Chavez 1979:198]

It may be suggested that Ouray, famous chief of the Uncompahgre Utes in the years immediately preceding the removal, was a Genizaro or close to it. While I do not wish to enter a technical debate as to whether or not he fully fit the criteria for classification as a Genizaro, he was far more a Genizaro than a contact-traditional Ute. Published information on Chief Ouray is plentiful and the reader is referred to Stewart's discussion (1973) and particularly to Smith's popular but informative biography (1986). In addition to the information on Ouray, there is some data on Shavano, another political leader of the Uncompahgre Utes. In 1880, Mrs. Elizabeth Kimball Miner met Shavano at an Indian settlement a few miles south of the Uncompahgre Agency. She commented that he had no "picturesque" headdress. Instead he wore a black felt hat, white man's cast-off ragged pants, and a dirty once white ruffled shirt (Ouray Herald, April 22, 1910). Sidney Jocknick, who was involved with the transfer of the agency to the Uncompahgre, provides some further understanding of Shavano in relation to the death and burial of an agency employee who was head-injured in a horse fall. Jocknick may have embellished the account somewhat but conveys some useful information. He stated:

> At last, towards morning on the fourth day, there came a period to his illness when the hour of death struck him. Then a strange transformation of features and expression came to his countenance; the thin, pinched face swelled out to its normal contour of rounded cheeks and full lips and, as the rush of blood ascended to his brain, there came a smiling face and a luminous eye. Pent up nature likewise restored speech to those quivering lips, and as the rush of blood ascended to his brain, memory was again established, for he called us each by name as we stood around his bedside, not forgetting old Shavano (war chief of the Utes) who was kneeling in prayer for the dying man. (It was the custom of the Ute Indians,

like most other wild tribes, to adopt a standing attitude in prayer but Shavano's custom was to kneel, having been thus taught by Catholic priests at Santa Fe, who once exercised a guardianship over him in his youthful days.)

Shavano's prayer, which was spoken in Spanish, translated, was as follows: "May the Great Spirit that lives in the Sun have mercy on his soul that he may go to where our forefathers live in the 'Happy Hunting Grounds' and be forever at home, and forever with his friends. In a little while he will go to the Sun and see the Great Father of the Utes. 'Poca tiempo vamoosa por sol (pretty soon he will go to the sun).'" This last sentence was twice repeated in broken English by Shavano as he arose from prayer, pointing upwards with an impressive forefinger as he joined our circle of waiting and watching while the boy's spirit was passing out to its final rest.

[Jocknick 1913:129-131]

Jocknick further states that "Good Old Shavano" was an Apache by birth, like Ouray is known to have been, and was a Ute by adoption (131). The information regarding Ouray and Shavano, combined with what we know of the Ute settlements on the Gunnison near Paonia and the Uncompahgre near Montrose, indicates a relatively high degree of acculturation to Mexican culture for at least some Utes. These people were probably the politically dominant element and those who were most easily removed since they were more sedentary. What became of the majority of the more contact-traditional Uncompahgre Utes is unknown to me as of this writing. I do not believe it is anywhere clear where they ended up, but the subject is worthy of further research and could conceivably one day be revealed through the local archaeology if, for instance, substantial post-removal Ute sites are ever found. My message in this discussion is to emphasize that we are apparently going to have to deal with two local sub-cultural elements under the general term Ute if we are ever to develop a salient historical archaeology of the Utes of West-Central Colorado. One is the Genizaro-like sedentary farmers, the other a more contact-traditional group. In this regard, if and when we are ever able to measure this aspect of Ute acculturation, it will have to be in terms of period Mexican culture as opposed to the American Victorian cultural tradition which characterized the actual white occupation of the area following the Ute removal (Baker 1978a).

CLOSING CONSIDERATIONS

In closing, it is necessary to discuss some considerations which will have to be dealt with in developing a significant historical archaeology of the Utes. These include some of the regional research problems which I have begun to suspect may be related to the changes wrought by the Utes' contact experience. These are not offered as a comprehensive research design but only as suggestions on where we might go from here.

One of the most critical considerations is that we should not expect to achieve too much in the way of historic Ute archaeology as it might be compared to the archaeology of other Amerind peoples. Foremost in this is the fact that most historic Indian archaeology has been derived from the study of groups who were more sedentary than the Utes. As examples, the

Plains area with its extensive literature on historic Indian culture, as illustrated by the works of Lehmer (1971), Wood (1971) and Smith (1972), is mostly drawn from examination of more sedentary populations with earth lodge villages and associated burial areas. The same is true for the northern woodlands, southeast and southwest, areas as exemplified by the works of Quimby (1966), Smith (1956), Brain (1979), and DePratter (1983) and the voluminous literature on the pueblos of the classic southwest. In stark contrast to these areas, the Great Basin culture area as a whole has produced very little historic Indian archaeology as attested to by the limited historic site considerations evident in the recently published Handbook of North American Indians (D'Azevedo 1986).

Any substantive historic archaeology of the Utes will be drawn from examination of individual households as considered by Deetz (1982) and in the examination of the individual burials as recently done by Fike and Phillips (1984). There will be little potential for examination of neatly clustered and obvious households such as in the Plains earthlodge villages and their attendant cemetaries. Instead, the Ute resources will consist of the very ephemeral wickiup and teepee households of deme clusters and the isolated crevice burials. Simply encountering and recognizing such ephemeral features will be a great challenge in itself as attested to by the papers presented at this symposium. There is often very little that can be said about these resources on the basis of limited surface evidence. This may be one reason for the lack of detail noted in regional site forms as discussed by Bill Kight at this symposium. Even when subjected to extensive examination, wickiup sites produce very little in the way of cultural materials as considered by Buckles (1971) and myself (Baker 1987). As an example, the historic household remains at the Roatcap Game Trail Site in the North Fork of the Gunnison drainage yielded only a handful of sherds, 22 specimens of flaked stone and not more than six pieces of ground and pecked stone (Baker 1987). As a result of my work at that site, I have begun to suspect that a great many of the resources recorded as isolated finds in regional inventories may well be traces of wickiup based households. Even when found and identified as historic Ute households, such resources pose incredible labor demands if they are to be comprehensively examined. At the Roatcap Game Trail Site, an area of approximately 100 square meters probably did not fully include the activity area. In order to retrieve the limited assemblage, some 30 square meters had to be excavated.

The problem of excavation magnitude at hunter-gatherer sites has recently been considered in some detail by O'Connell (1987) in relation to Binford"s (1980) forager-collector continuum. His assessment is that patterns in site structures will often be apparent only in "exposures of thousands or even tens of thousands of square meters, scales that are one or two orders of magnitude larger than those of the very largest excavation now undertaken" (O'Connell 1987:105-106). In this reference, O'Connell stresses the difficulty of adequately excavating ephemeral sites such as those of the Alyawara. His discussion is very applicable to the ephemeral sites of West-Central Colorado and the Great Basin in general. In this region, the literature is filled with reports of comparatively small scale excavations at such ephemeral resources. Too much of this literature seems to fall short of contributing much about patterning in site structure and content. This is because the sampling used is inadequate for the type of resource. Usually this sampling is determined by simple business concerns rather than the

realities of doing meaningful archaeology of ephemeral resources. These concerns will make it difficult to develop the archaeology of the historic Ute, unless one is lucky enough to excavate one of the few Late Contact sedentary villages I previously discussed.

The subject of historic Ute population levels and potential site densities is a difficult one but needs to be considered on a level of general magnitude, in order to appreciate the potential for historic Ute site research. The area north of the San Juan Mountains to the Colorado River and between the Continental Divide and the Colorado/Utah border contains roughly 10,000 or more square miles. In 1878, there were a reported 2,000 Utes residing in this region, or at least attached to the Uncompahgre Agency (LROIA 1877-1880). This would result in a density of about one person per five square miles. If one allows for perhaps four persons per household the household density for perhaps 500 households would have been one household per 20 square miles. At the least it is fair to say that in the late contact period there were only a few Indians in a relatively large area. One should expect the population density to have been considerably greater earlier in the historic period. The available estimates on Ute population density suggest that the Utes probably had the highest of any Great Basin group and may have approached one per square mile in some areas (Callaway, Janetski, and Stewart 1986:352). If this figure is used, then West-Central Colorado may once have been home to as many as 10,000 people or perhaps 2,500 households. This would reflect a population reduction of as much as 80 percent over the contact experience. Such a population decline is not inconsistent with that of other Amerind populations (Ezell 1983:150; Simmons 1979:143; Dobyns 1966:414; Baker 1975:102). An 80 percent reduction may suggest that the Utes actually fared better than many other more sedentary groups. This may be attributable to the scattered open site settlement patterns where disease would not have been so easily spread. While admittedly speculative, these figures convey some idea of the potential household site resource base. It can be further suggested that the west slope may once have been rather heavily populated and why it is often jokingly referred to as "one continuous lithic scatter."

As we begin to recover historic Ute artifact assemblages it will be necessary to consider the categories of cultural change reflected in the historic artifacts. One of the best keys to categories of change reflected in historic artifacts was developed by Quimby (1966:9-11).

The reader is urged to study Quimby's work in depth when beginning to deal with historic Ute artifacts. In summary form, these included:

> New types of artifacts received through trade or other contact channels.
>
> New types of artifacts of forms copied from introduced models, but reproduced locally of native materials by native manufacture.
>
> New types of artifacts of introduced forms, made and/or decorated locally, partly from native materials and partly from imported materials.

4) New types of artifacts of introduced forms, manufactured locally from imported materials through the use of an introduced technique or a native technique similar to the introduced one.

5) Old types of artifacts modified by the substitution of an imported material for a local material that was inferior in physical properties, lacking in prestige, or harder to obtain.

6) Old types of artifacts modified by the substitution of either imported material or heretofore unused local material, the use of which involves a different technological principal to achieve a similar end product.

7) Old types of artifacts modified by the introduction of a new element of subject matter.

[After Quimby 1966:9-11]

There are two particular categories of native Ute technology which seem to warrant particular interest in regard to the current progress of the local archaeology. The first is that of ceramics. As I mentioned in regard to the Late Precontact Phase, there is evidence to suggest that the Utes had a ceramic tradition even if weakly developed when compared to those of other peoples (Smith 1974:83-89). Ceramics do not appear to have persisted very long into the historic period and were probably dropped out of the cultural assemblage during the Middle Contact Phase as the Utes became increasingly equestrian. Ceramics manufacture does not fit in with an equestrian lifeway unless rooted in a more sedentary village context. Add to this a disruption of kinship ties through losses to disease and ceramic manufacture quickly withers away since it is normally taught by the old to the young within a family setting. The limited role of ceramics, primarily as cooking pots in Ute culture (Smith 1974:85-88), could easily be fulfilled by trade kettles in keeping with Quimby's first category.

There are some hints that lithic technology may have suffered as a result of the Ute contact experience. It has been reported that during the Late Contact Phase the Utes scrounged among archaeological sites for some of their tools (Eddy, Kane, and Nickens 1984:103). My own work at the Roatcap Game Trail Site (5DT271) indicated a limited lithic technology and suggested that simple utilized flake meat knives were selected on a fortuitous basis from among available lithic debitage (Baker 1987:95). The availability of metal knives or metal to produce their own arrow points and other tools is known to have brought about the deterioration or extinction of flintknapping among various Indian peoples (Wood 1971:69; Smith 1956:113; Quimby 1966:10). This relates to Quimby's fifth category as outlined above.

The simple utilized flake tool kit from the Roatcap Game Trail Site may or may not be an indication of cultural change wrought by the contact experience. Had lithic procurement strategies and/or production technology fallen or were these the optimum tools for the task at hand? The answer can only come with additional analysis of small isolated components representing a wide cross section of Ute society throughout the contact experience. The high percentage of utilized flakes may prove to have been merely a "red

herring." It also may be significant in helping to gauge Ute culture change. Buckles (1971:443) and I appear to agree that closer analysis of debitage will be required if archaeology is going to solve problems such as are involved in working with historic Indian peoples. Along these lines, Copeland (1986) has recently attempted to develop statistical methods of chronological ordering of sites in the eastern Great Basin which lack other temporal indications, and he has been able to show some potential for distinguishing between Archaic and Late Prehistoric sites. Continued research on lithic debitage is one of the more pressing needs in the study of cultural change for ephemeral sites in the region.

There is a long list of potential avenues of inquiry regarding the artifacts attesting to the evolution of historic Ute culture. By the Late Contact Phase there is considerable complexity in the changing material culture. As a starting point in dealing with the ephemeral Ute remains, it seems wisest to approach basic questions such as ascertaining the baseline Late Precontact cultural profile and evaluating changes in the normal recoverable range of material culture. Ceramics and lithics are within this range. Other topics which I believe need to be priorities in archaeological and supporting ethnohistoric research are a re-evaluation of band names, connections and territories, the role and degree of dependence on the horse at different points in the Ute's cultural evolution, and the subject of the Genizaro-like portion of the society in contrast to the bulk of the Ute people. A start on these topics will help establish the foundation of an archaeology of the historic Utes.

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ARCHAEOLOGICAL INVESTIGATIONS AT 5EA433

by

Carl E. Conner

INTRODUCTION

Site 5EA433 is located west of Eagle, Colorado, north of and on the first bench above the Eagle River. It was first identified in the summer of 1980 during a cultural resources inventory for Colorado-Ute Electric Association's Wolcott-Eagle-Basalt 230 kV transmission line. Originally, the resource was described as a probable open campsite evidencing a light lithic scatter and possible ash-stained concentrations and distributed over an area about 100 m N-S by 40 m E-W. No indications of structures were found during the initial inspection. The site was field evaluated as potentially eligible to the National Register of Historic Places (NRHP), and Colorado-Ute was required to provide an archaeological monitor for any construction activities in the area.

During the monitoring of access construction and pole emplacement, the site was found to be more extensive than previously thought and to contain the remains of structures. Approximately 200 feet northwest of the original survey centerline (outside the survey boundary) and north of the previously designated site boundary, a single branch leaning against a tree was noted. Inspection of the area beneath this tree (later designated structure #6), turned up a metal tinkler and a glass bead. Subsequent investigation of the surrounding area revealed a second, more intact framework (#2) which consisted of several juniper limbs laid against a juniper tree and a juniper bark mat (unwoven ground cover) beneath. This find of matting led to the identification of several other unnaturally occurring piles of bark beneath juniper trees - most with associated poles, but some without. Two of those without structural remains, #7 and #8, were located within the original survey area. Poles had apparently been removed for use either as fence posts or firewood.

In total, the site includes the remains of at least eight shelters and encompasses an area about 180 m N-S by 250 m E-W. It may have been larger, but the south extension of the site was obliterated by construction of highway I-70. Because 5EA433 was not completely recorded during the original survey, it was decided that the site's boundaries and main features should be mapped and that testing should be undertaken to determine its NRHP eligibility. Figure 1 illustrates the site's main features, gross topographic characteristics, and estimated boundary.

FEATURE DESCRIPTIONS AND DISTRIBUTION

Two forms of shelter have been ethnographically recorded as having been employed by the Utes, the historic tribe of the study area. The brush shelter, or wickiup, was probably the earliest shelter form of these people; it was used into the 20th century. Tipis were reportedly acquired from historic period contact with Plains Indian tribes, the earliest accounts of Ute tipis are found in Spanish documents dating to 1720. In Escalante's 1776

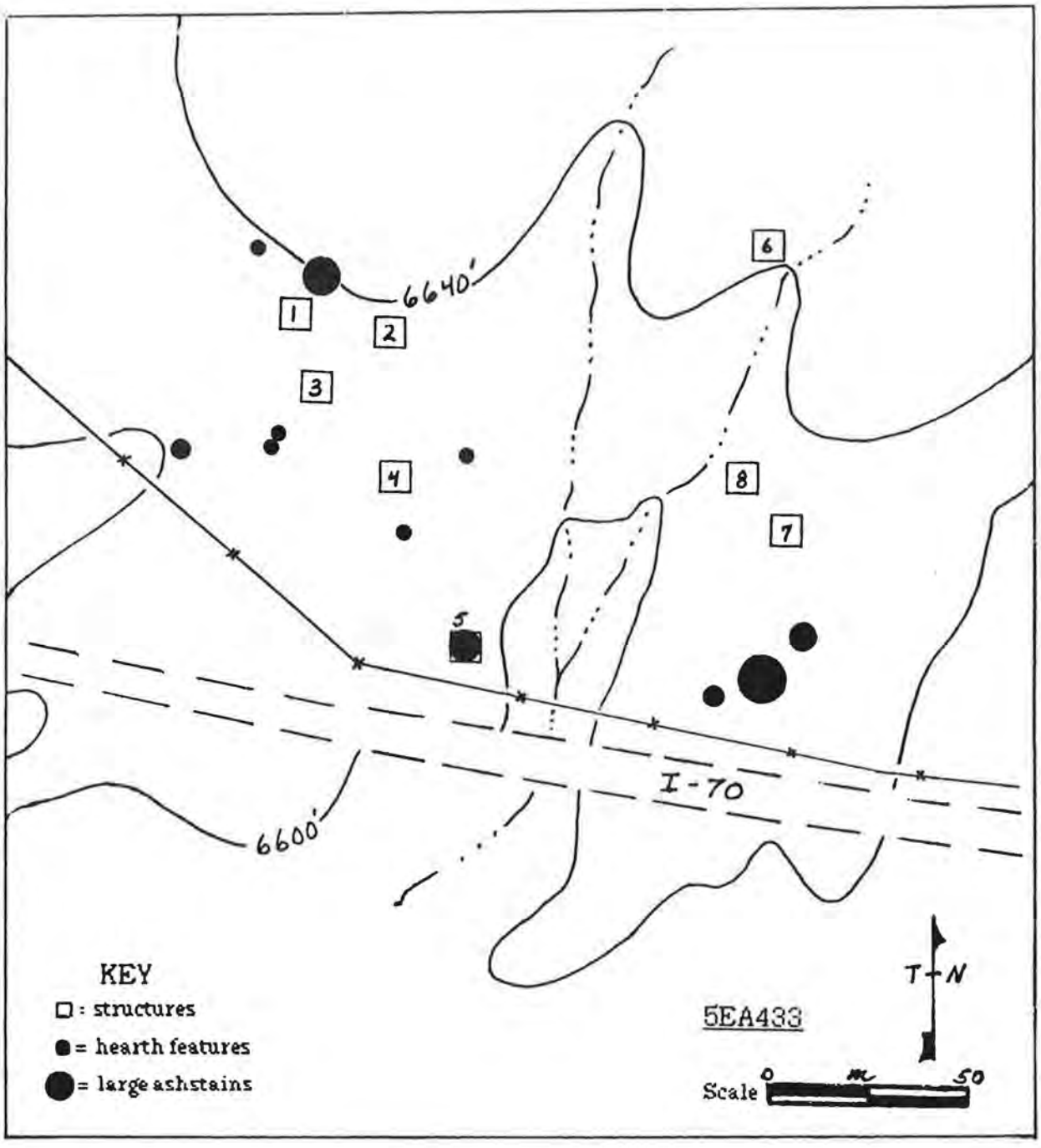


Figure 1. Sketch map to scale showing distribution of features at 5EA433.

expedition journal, he notes that Ute camps had both tipis and brush shelters. Records kept at the Fort Duchesne reservation in 1888 again attest to the use of both shelter forms; brush shelters were common during the summer months, but both tipis and wickiups were occupied during the winter months. The poorer Utes were restricted to use of the brush shelters year-round because they did not have sufficient horses to carry the hide coverings for the tipis (Smith 1974:33-35).

Brush shelters and tipis varied considerably in size and type of material. Smith (ibid:35) reports that the size was determined mainly by the length of time it was to be occupied. Winter houses measured 3-5 m in diameter and height and slept up to 15 people. Shelters to be used for short periods of time were smaller and not as carefully made. The large wickiups resembled tipis in that they used a four-pole foundation and had twelve or more poles laid up against these to form a circular frame. The framework was then covered with brush or tule mats which were held in place by three inner and three outer horizontal strips of willow bound to the frame with willow withes. Tipis, of course, were covered with elk or buffalo hides. The smaller wickiups were often constructed entirely of juniper where poles were simply laid together, then either brush or bark covered. Smaller versions of the tipi, which used only 6 to 8 poles, 2 to 3 m long, were also common. Smith (ibid:36,39,40) notes that both the tipi and wickiup floors were covered with soft brush or bark and that winter shelters generally of both varieties had a central firehearth.

Site 5EA433 exhibited several types of framework for skin and bark coverings. (Figures 2 through 5 show the various kinds of structures and juniper bark "matting" found at the site.) Those apparently designed for skin coverings were made by stacking six to eight poles (usually deadfall) against a tree or by constructing a freestanding structure. Another type of framework was made by breaking down three or four live limbs from a tree, pulling the ends to the ground, and leaving the bases attached to the tree. These could only have been covered with skins (or canvas). The smallest type of structure - presumably a wickiup - was made of short (only 1.5 m long) poles leaned against a tree and covered with bark. On the ground within the enclosure was a bark floor covering. In the absence of standing poles, this bark "matting" was often the only indicator of the location, and size of these structures.

Most of the mats and poles occur on the east or south sides of trees, although two were constructed on the west. There was no evidence of firehearths in any of the structures, but associated with many were two or three large, fire-reddened rocks. Several of these were found under the edges of the bark matting, and it is likely that they were heated outside then brought in to warm the beds.

In comparing the characteristics of the structures at 5EA433 with the ethnographic material presented by Smith, it is probable that the site was occupied for a relatively short term by the Historic Utes. However, Huscher (1939:28) points out that nearly all of the structures found in this region have been about the same size and type, so size may not be a good indicator of duration or season of occupation.

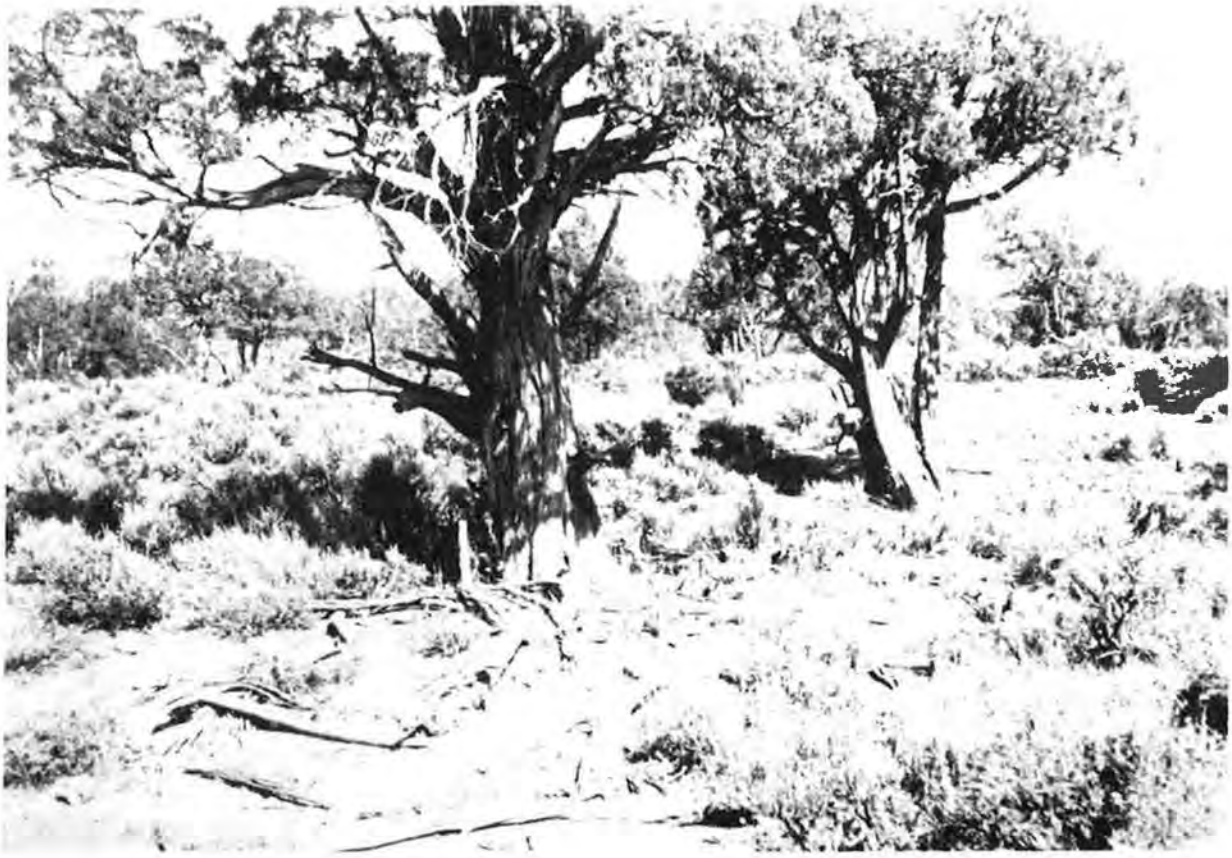


Figure 2. Collapsed remains of Structure #4, possibly a free-standing tipi frame.

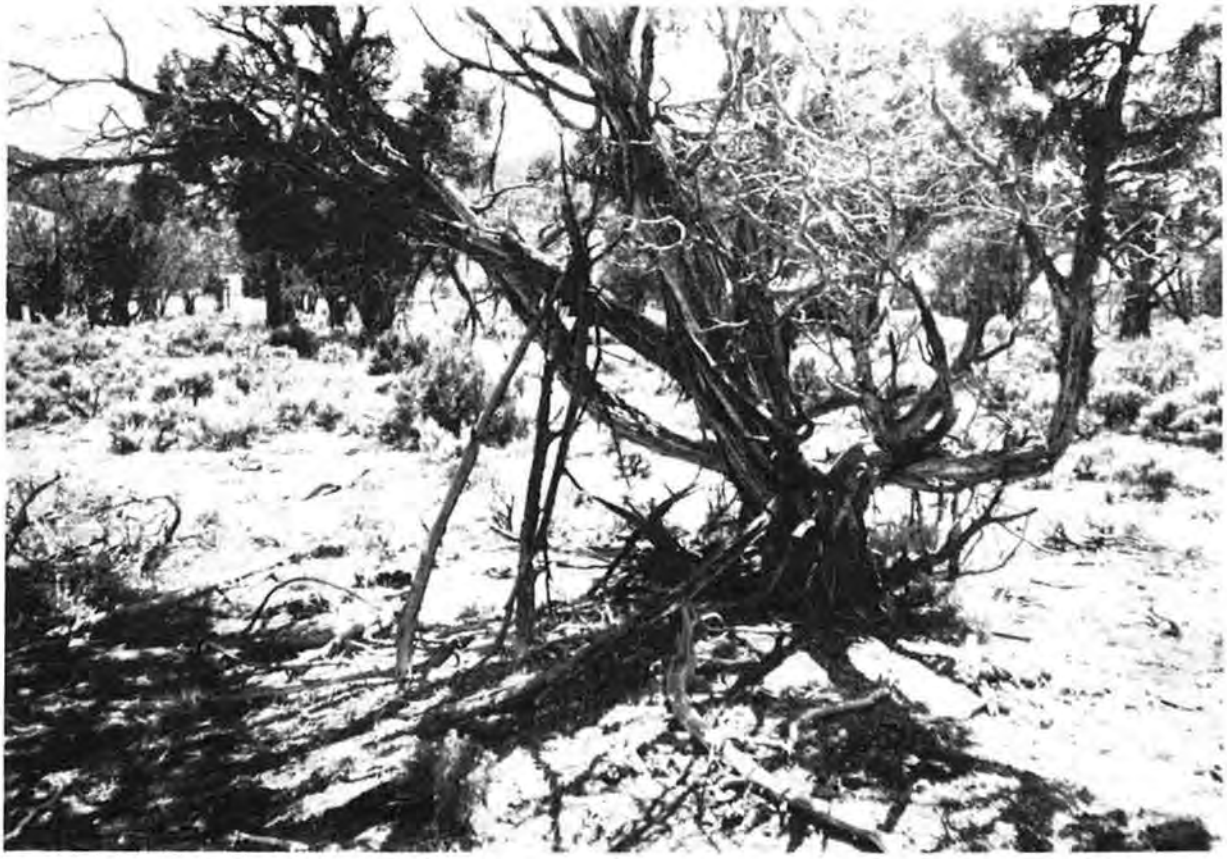


Figure 3. Structure #2, possible "true" wickiup.

Figure 4. Structure #3, made by breaking down limbs from the tree and leaving the bases attached.

Figure 5. Bark matting on floor of Structure #1.

The condition of the structural remains and the surface artifacts found in direct association with the structures suggest that the site was last occupied about A.D. 1860. Table 1 lists the shelters identified and the types of artifacts found within 5-10 m of each.

Shown in Figure 1, there are large and small ash concentrations scattered over the site. The small ones, usually measuring no more than a meter in diameter are hearth remains. These are isolated from the structures and represent either separate work areas or perhaps a different occupation (see discussion on groundstone). The large ash stains, however, may well be the remains of structures that were burned. Structure #5 consists of five to seven poles surrounding a burned area that measures 2 m x 3 m - probably the remains of a juniper bark mat. Several similar burn areas without poles are present, which suggests that earlier occupation may have occurred at the site. One of these is located 12 m north of structure #1, another is about 25 m south of #7. The latter is the largest, about 5 m in diameter, and may have been a winter habitation.

Spacing between the wickiups where topography is not a factor is about 20-30 m. It is assumed that most activities took place in or adjacent to these structures because most of the temporally diagnostic artifacts were found in close association. However, one concentration which consists of artifacts S23 through S28 - two bifaces, a large (primary) utilized flake, two other flakes and a mano fragment - may represent a separate work station for the butchering of a large mammal. Another possible work station, devoted to floral processing, may be indicated by the isolated cluster of four manos - artifacts S5 through S9 - and two associated ash stains. It was thought during mapping that these work stations might be associated with the most recent inhabitants, but testing of the wickiup and artifact analysis indicated that they may belong to earlier occupations.

TESTING OF STRUCTURE #1

As part of the evaluation process, the main locus of the site, including structures #1 through #5, was plane-table mapped and surface collected (Figure 6). Structure #1 was selected for testing because of its relatively good condition and apparent depth of cultural fill.

At structure #1, a juniper bark mat protruded from the ground and the remains of six to eight poles lay on the surface. A 2 m x 2 m grid, oriented on true north, was established over the bark mat and within the circle of poles. The soil was cleared by trowel and brush from atop and around the mat and was subjected to fine screening. Cultural materials were recorded on a series of planviews of the test pit (Figure 7).

Two layers of cultural debris were found during the test. The upper layer consisted of the matting which, when cleared of dirt, measured approximately 2 m x 3 m. Three artifacts that could directly be associated with this upper level were a glass bead, a leather fragment, and a metal tinkler. Just below the mat was a large area of ash-stained soil and some burned wood fragments. Artifacts from this lower level included utilized bone and other bone fragments of an elk, a mano fragment, a large (primary, quartzite) flake, ochre, and burned pinyon nut shells. A carbon sample obtained from the bottom of this level yielded a date of 390±50 B.P. (Beta Analytic, Sample

Table 1. Structural Remains and Associated Artifacts at 5EA433

Structure #	Remains	Associated Artifacts
1	6-8 poles, bark mat	S16. Anthill w/glass beads S18. Metal fragments S19. Mano fragment S20. Mano fragment S22. Flake S21. Biface fragment (15 m NE)
	Artifact cluster 10 m SE:	S23. Biface fragment S24. Biface S25. Utilized flake S26. Mano fragment S27-S28. Flakes
2	12 poles, bark pile	S29. Anthill w/glass beads S46. Glass bead from anthill S52-57. Glass beads from anthill S58. Metal fragment
3	8 poles	S11. Mano S12. 2 flakes S13. Lg. primary utilized flake S14. Mano S15. Flake
4	1 pole	S01. Projectile point S35. Mano fragment S36. 5 flakes S44. Biface fragment
5	5-7 poles 2m x 3 m area of ash stain (possible burned mat)	S38. Mano fragments
6	6-8 poles, bark mat	S43. Metal tinklers (3) S45. Bead made from crinoid stem (fossil) S50. Glass bead S51. Glass bead
7	Bark mat (poles gone)	S49. Glass bead
8	Bark mat (poles gone)	S59. Ceramic rim sherd

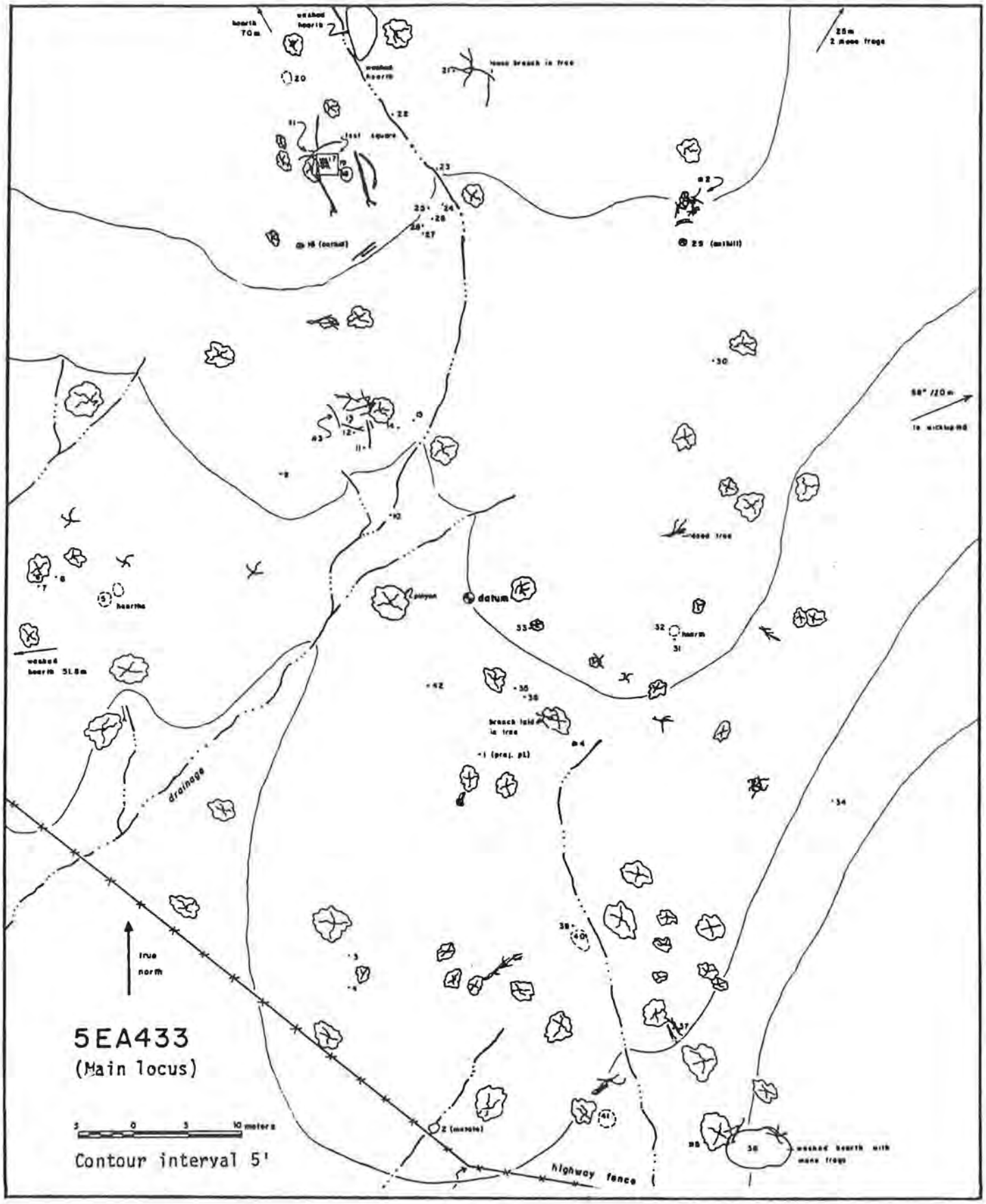
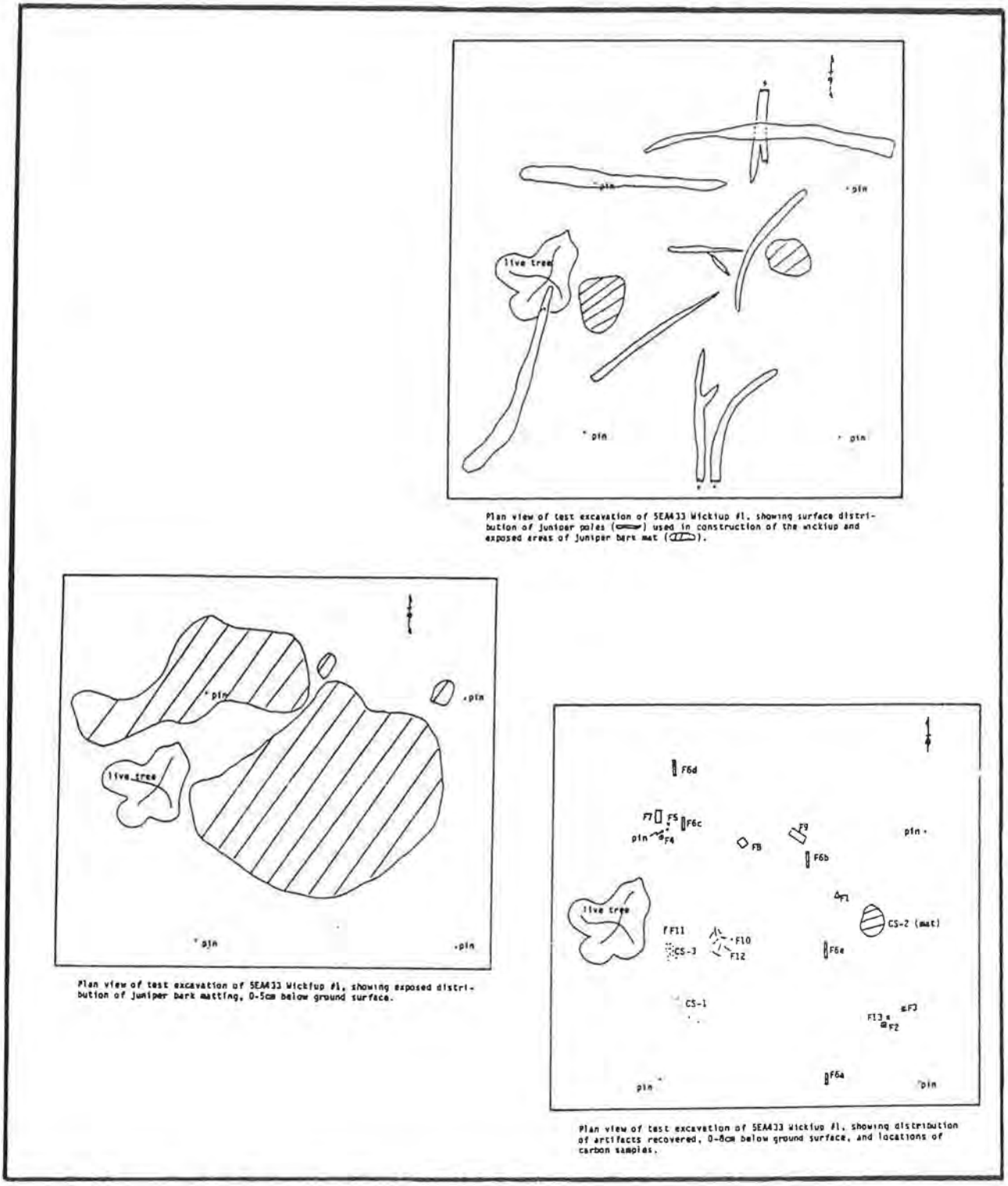


Figure 6. Plane table map of main locus, 5EA433.



Plan view of test excavation of 5EA433 Wickiup #1, showing surface distribution of juniper poles (▭) used in construction of the wickiup and exposed areas of juniper bark mat (▨).

Plan view of test excavation of 5EA433 Wickiup #1, showing exposed distribution of juniper bark matting, 0-5cm below ground surface.

Plan view of test excavation of 5EA433 Wickiup #1, showing distribution of artifacts recovered, 0-8cm below ground surface, and locations of carbon samples.

Figure 7. Planviews of 2m x 2m test plot at Structure #1, 5EA433.

#3836). Locating and dating this second level supported the hypothesis that the many large burned areas were actually the remains of similar but earlier structures which may have been consumed in a fire.

ARTIFACTS

The artifacts recorded from the test excavation and their associated radiocarbon dates helped to temporally sort out the various surface recorded features and artifacts. It was clear that at least two occupations had occurred at the site, one dating ca. A.D. 1860 and the other ca. A.D. 1560. Yet a third occupation was suggested by the surface collection of diagnostic artifacts.

Those cultural materials which were easiest to assign a temporal affiliation were the beads, metal tinklers, metal fragments, and the leather fragment found with the structures. The glass trade beads were all drawn (seed) beads which occur in the area as early as 1835 but which were popular with the Utes into the early 1900s. The metal tinklers are made of tin that could have been secured from government rations. The finds of metal fragments at structures #2 and #6 and the leather fragment at #1 indicate that clothing was being made on site. Of interest is a bead made of a fossil crinoid stem found in association with structure #6. Figure 8 shows illustrations of the tinklers and bead made from a fossil.

Another artifact associated with the site's most recent occupants is a ceramic rim sherd (S59) found at structure #8. Priscilla Ellwood, University of Colorado Museum, analyzed the sherd; she reported that it came from a vessel which had a slightly outcurved and tapered lip, probably a constricted-necked jar, which was made by coiling and scraping, then fired in an unoxidizing atmosphere at low temperature. The sherd is 6 mm thick, is uniformly dark (Munsell 7.5YR2/0), and has a porous, coarse texture that is due to a temper of crushed rock, quartz grains, and muscovite. No decorations are present but the surface was smoothed by wiping. Through comparative analysis, Ellwood found that the sherd resembles both Shoshonean ware and Uncompahgre Plain Brownware. However, while the paste attributes meet those described for Shoshonean ware by Coale (1963), the sherd does not appear to have been thinned by paddling, a characteristic of that type. Thus, the sherd is most likely Uncompahgre Plain Brownware as described by Annand (1967), a type culturally assigned to the Utes and dating post A.D. 1700.

Three projectile points (S1, S2, and S37) were found in surface contexts (Figure 9). The first (S1) is a triangular, medium-sized, corner-notched point (L-2.66 cm, W-2.05 cm, Th-0.5 cm) identified as an Elko Corner-notched type which is temporally non-diagnostic. It is made of grey quartzite, a large grained material, which makes determination of its use difficult, but rounding of the tip and one edge suggests it was used as a knife. Artifact S2 is a narrow, medium-sized, corner-notched point (L-3.25+ cm, W-1.76 cm, Th-0.45 cm) made from moss agate. Both edges are serrated and slightly concave, as if newly resharpened; this and the asymmetrical outline of the point suggest use as a knife. In general, the point is similar to narrow, corner-notched types diagnostic of the Formative period between A.D. 500-1100. The third point (S37) is a basal fragment of a large (L-1.9+ cm, W-2.13 cm, Th-0.53 cm), stemmed, basally-notched point of white chert. It is

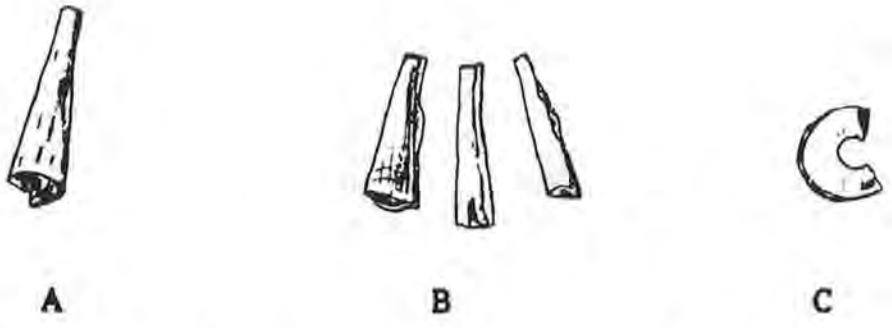


Figure 8. A) Tinkler from mat in structure #1 (F1); B) Three tinklers from #6 (S43); C) Bead made from crinoid stem (S45).

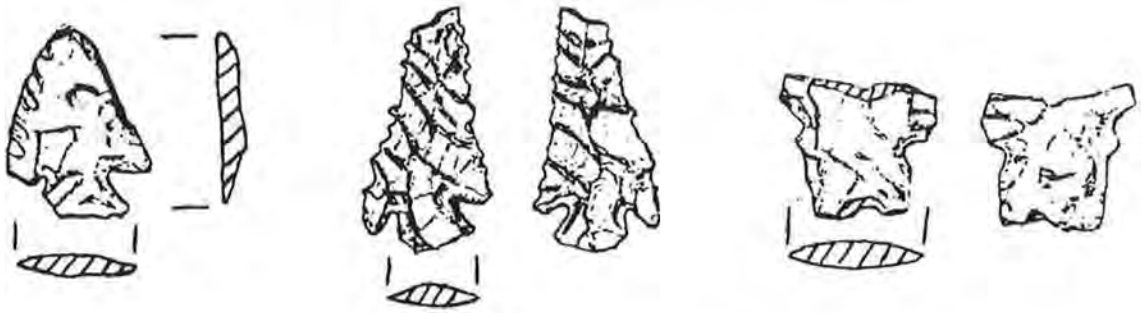


Figure 9. Projectile points, artifact numbers S1, S2, and S37.

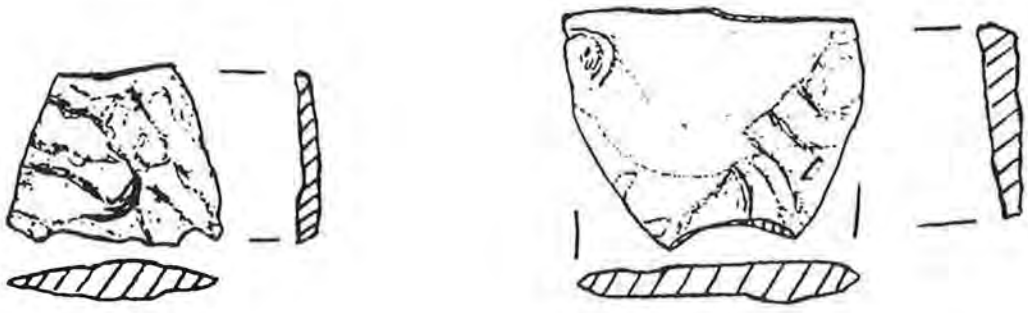


Figure 10. Bifaces, artifact numbers S10 and S21.

too fragmentary for classification, but it resembles the Middle Archaic Duncan type of the McKean Technocomplex. Any of these points could have been brought into the camp by the Utes, a practice common to this group. However, the Elko is often found in association with Formative Period artifacts (most often showing use-wear as a knife). Its association with the corner-notched point is indicative of a third occupation of the site.

Two other bifaces (S10 and S21, shown in Figure 10) were found in surface contexts: a midsection of a broad corner-notched point (L-2.39+ cm, W-2.87 cm, Th-0.54 cm) and a base of a broad, leaf-shaped type (L-3.9+ cm, W-3.90 cm, Th-0.64 cm). The hafted biface (S10) is made of grey chert, is not finely retouched, and exhibits step fractures and edge crushing along both edges. It was probably used as a knife. The large biface base is made of a dark red and brown chert; it shows evidence of having been used as a knife and a scraper. No finely made unifaces were found at the site, but two large, utilized, primary flakes from quartzite and granite cobbles were recorded. Debitage does not occur in quantity or variety and it is doubtful that lithic reduction or even lithic tool manufacturing were primary activities of the site during any occupation.

Groundstone, however, is prevalent. Over twenty manos and mano fragments and four metates were recorded. Of the manos that could be typed, most are unshaped cobbles having use-wear on one side. Of particular interest is a nearly disc-shaped basalt mano (S5), measuring 12.5 cm x 10.5 cm x 3.7 cm. It is pecked and shaped around the edge. A similar type was found at Battlement Mesa only in the context of Fremont Culture sites (Conner and Langdon 1987:7-29). Artifact S5 and two others, S40 and S41, were found in isolated, exposed hearths; again in the Battlement Mesa study, only hearths dating to the Fremont period between A.D. 600-1150 contained manos in their fill (ibid.:7-40).

The metates recorded are all slab-types made from sandstone. One is a fragment which has been heavily ground on both sides and pecked and shaped on the edges. It is thin (2.85 cm) and is apparently part of a portable metate, a type often found on Ute sites. Two nether milling stones were found adjacent to isolated hearth features.

Bone tools were found among other bone fragments beneath the juniper bark mat during the test (Figure 11). All were from a large mammal, apparently the same elk. Two exhibited use-wear: a fragment of an unidentified longbone, utilized as a knife, and the distal portion of a right tibia, utilized as a scraper. A third bone, the distal portion of a right radius, appeared to have been broken in use and was possibly a chopper.

RECOMMENDATIONS

Because of the presence of structures and in situ subsurface cultural deposits, site 5EA433 was recommended as eligible to the NRHP. The site is likely to contribute additional data concerning the Late Prehistoric and Historic occupations of the Eagle area.

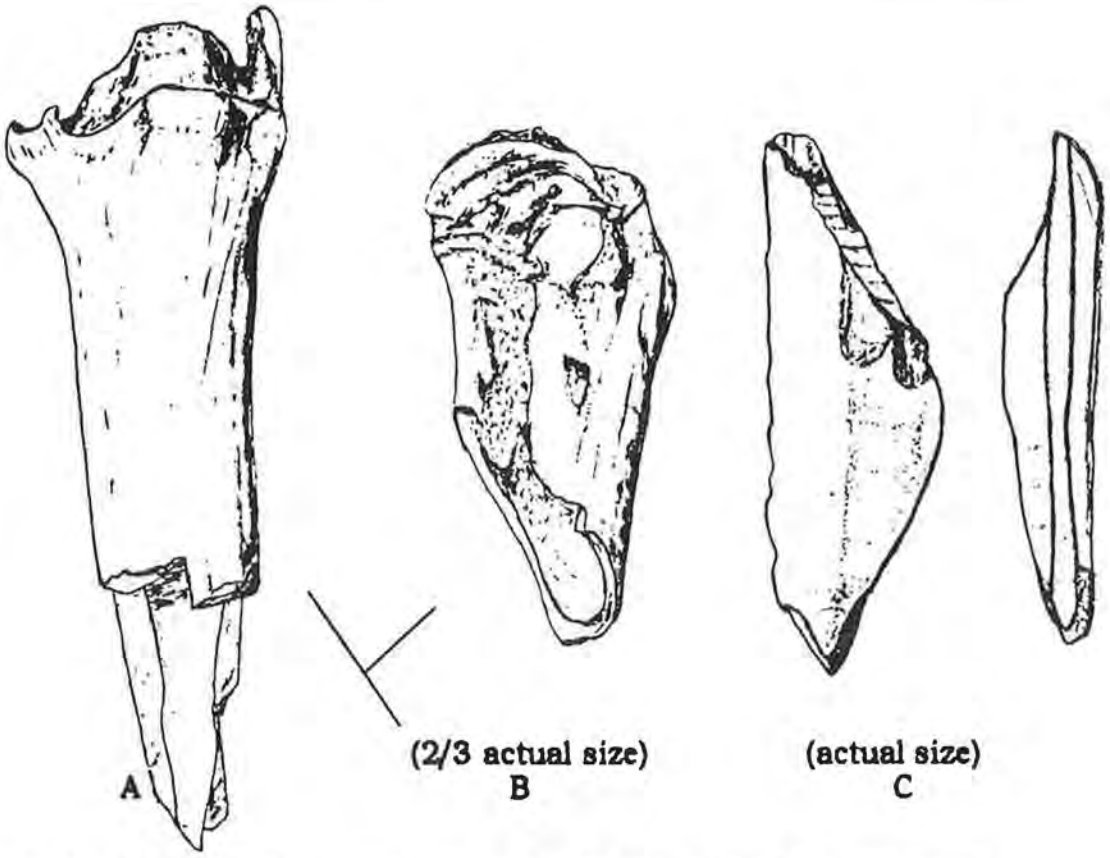


Figure 11. A) Radius, distol portion (F9a); B) Tibia, distol portion (F9b); C) Long bone fragment utilized as knife/perforator (F7).

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THE HUSCHER PHOTOGRAPHS OF COLORADO UTE SITES

by

Reed T. Terry and Cynthia Wood Gilchrist

Between 1939 and 1941, Harold A. and Betty Holmes Huscher conducted an archaeological survey and limited testing in western Colorado. Their fieldwork, partially funded by the Colorado Museum of Natural History (now the Denver Museum of Natural History), was concentrated in the lower Gunnison River drainage on the Uncompahgre Plateau. Limited work was also done in the Saguache-La Garita area in Saguache County. Over 60 archaeological sites, ranging in age from the Archaic through the historic periods, were identified during the survey (Huscher and Huscher 1939).

One of the major contributions of the Huscher's study was the documentation of several protohistoric and historic Ute sites. Through field reconnaissance and local informants, they identified and described twenty-one wickiup sites, eleven tree platforms, five game traps, and one hunting blind. They also recorded the presence of travois poles, "squaw wood," pot tripods, and Bear Paw petroglyphs, possibly associated with Ute occupation of the area (Huscher and Huscher 1939). All of the Ute sites, with the exception of two at Cochetopa Pass, Saguache County, were located within the Escalante Creek drainage area on the Uncompahgre Plateau. Figure 1 shows approximate locations of these sites, derived from information in the Huscher's 1939 field notes.

Documentation of these protohistoric and historic remains included photographs and detailed descriptions, which appear in the 1939 field notes. Surface artifacts were also collected, although the majority of the Ute sites contained only structural remains (Huscher and Huscher 1939:88).

Many of the Huscher's original site photographs are in the Photo Archives of the Denver Museum of Natural History. In addition, copies of the 1939 field notes and a small amount of surface material collected from Ute sites HJFW, H-8 (Harvey's Place), and "Tree Platform" (unidentified) are in the Museum's archaeological collections.

Some of the photographs included here (Figures 2, 4, 6, and 10) appeared in a temporary exhibit held at the Museum in 1941. The others are from a group of photographs recently located in the Museum's archives. Taken by the Huschers in 1939 on nitrate film, they have now been reproduced on safety film. Because photographic records are not available, however, some of these recently discovered photographs can not be associated with specific site locations at this time.

Unfortunately, much of the valuable information that the Huschers compiled on Colorado's Ute sites has never been published. However, research on the collection is now being conducted at the Museum by the authors. We hope that the results will soon be available through publication.

It is probable that most of the Ute sites documented by the Huschers have seriously deteriorated or vanished in the 60 years since they were recorded. Consequently, the existing photographs and descriptive information recorded in the Huscher's 1939 field note provide a significant resource for understanding Ute cultural history in Colorado.

Acknowledgements:

The authors wish to thank H.E. Day, Denver Museum of Natural History, for reproducing and printing the photographs used here; and Dr. Jane S. Day, Head Curator, DMNH for her comments and editorial assistance. All photographs are courtesy of the Denver Museum of Natural History Photo Archives.

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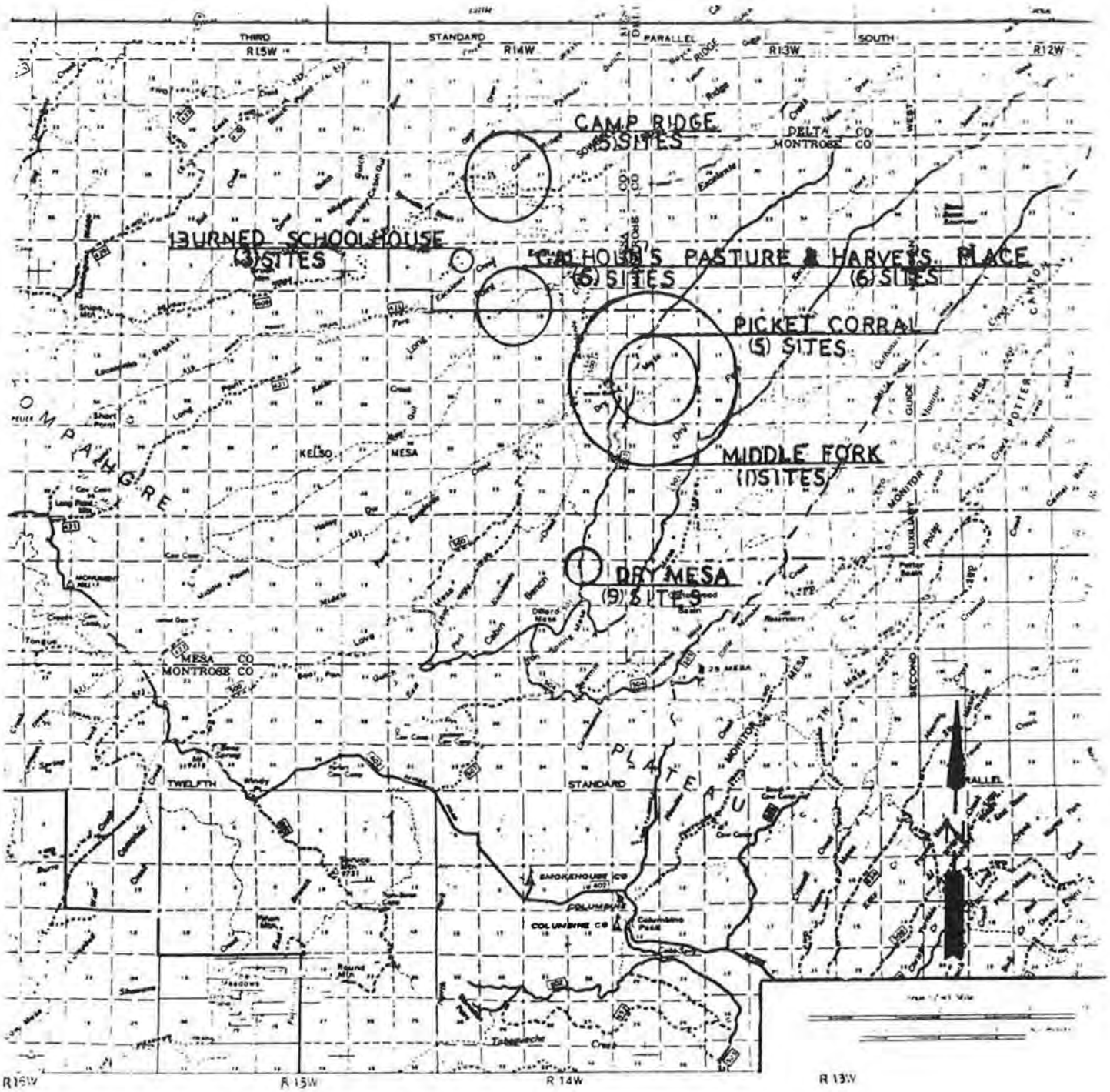

Figure 1. Approximate locations of Ute wickiup sites recorded by the Huschers in the lower Gunnison River drainage. Numbers in parentheses indicate the number of structures.

Figure 2. Four post sunshade, Weminuche Band, Southern Ute. This structure was photographed in 1940 on the Towaoc sub-agency, as an example of historic use of brush shelters by the Utes. © DMNH

Figure 3. Wickiup remains, Harvey's Place site, Kelso Creek, in the lower Gunnison River drainage, 1939. © DMNH

Figure 4. Wickiup, constructed of cedar saplings and thatched with cedar bark, Escalante drainage area, site unknown, 1939. © DMNH

Figure 5. Harold Huscher recording wickiup remains, 1939, Escalante drainage area, site unknown. © DMNH

Figure 6. Wickiup, Cochetopa Pass, Saguache County, one of a group of three well-preserved wickiups located at approximately 9000 feet. Unlike the cedar and pinon wickiups recorded at lower altitudes, these were constructed of aspen logs and spruce bark.

Figure 7. Tree platform, Little Cottonwood Creek, 1939. The platform was located at the top of a pinon tree with the possible remains of a wickiup and fire hearth at the tree's base.

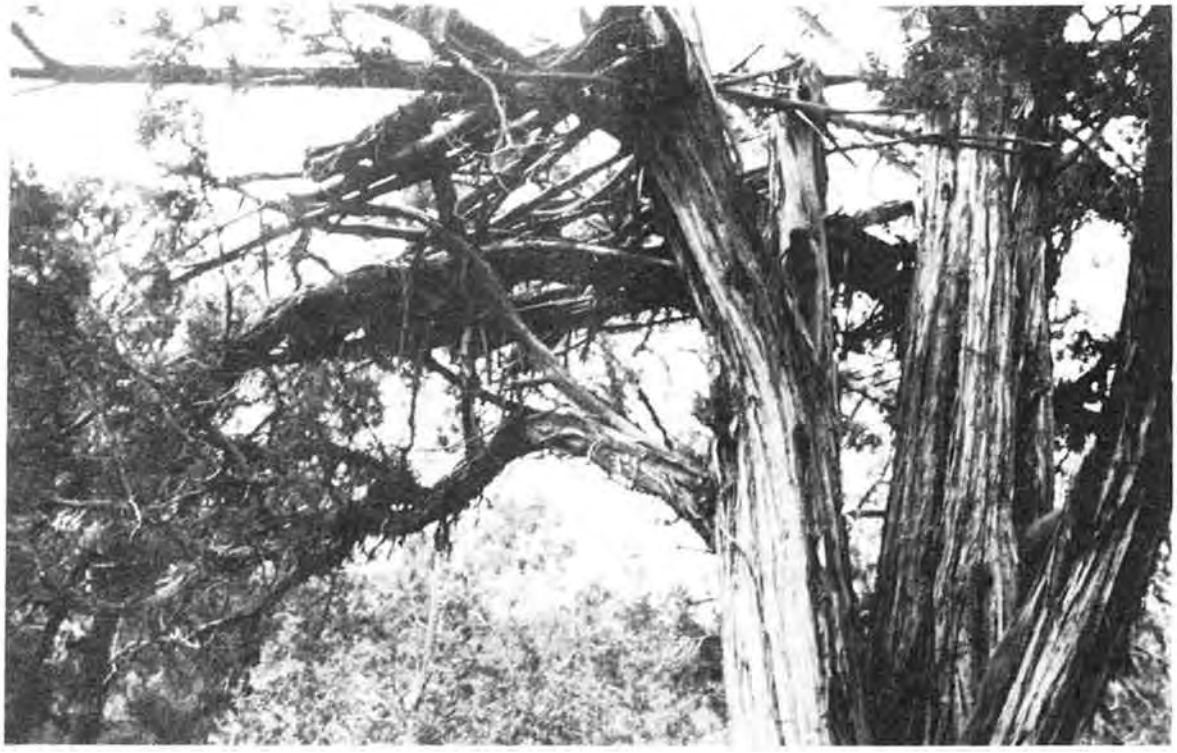

Figure 8. Tree platform, unidentified location in the lower Gunnison River drainage, Uncompahgre Plateau, 1939.

Figure 9. Tree platform, unidentified location in the lower Gunnison River drainage, Uncompahgre Plateau, 1939.

Figure 10. Antelope trap, located near Saguache, 1939. This log-cribbed pit was reportedly one of a set of three traps. (Betty Holmes Huscher in the background).

DISCUSSION

by

William G. Buckles

INTRODUCTION

Science is based upon scepticism. We must be critical of assumptions, interpretations, and propositions and test and replace them if they are found inadequate. The symposium papers will be looked at sceptically, because that is the way I view my role as discussant. Statements I will make are intended to benefit our search for knowledge and will be presented, hopefully, in a colleaguial manner which will not be misunderstood. Because my approach is basically sceptical, most of the remarks will appear to be negative rather than positive. All the papers made contributions and the remarks are not intended to diminish the contributions but to enhance them.

Paul Nickens organized the symposium to gather information about traits, distributions and archaeological contexts of Ute archaeology. These three aspects are interdependent in developing and testing propositions about Ute archaeology. Specific traits were investigated by Hill and Kane, Nickens, Martorano, Horn, Scott, Reed and Cole. Distributions were investigated by Reed, Horn, Cole, Nykamp, Kight, Baker, and to degrees, by others who investigated traits. Excavations and other field investigations were represented by the papers of Connors and Baker.

The value of the gathering of information is obvious. Apparently, very little is known outside of Colorado, apparently, about either Ute archaeology or about the archaeology of western Colorado. For example, the recent synthetic volumes of the Handbook of North American Indians almost entirely disregard Ute archaeology and the archaeology of western Colorado outside of the southwest culture area. The culture area approaches of these volumes tend to present information as though the culture area boundaries coincide with modern state boundaries and western Colorado is a cultural void. The symposium will make information about western Colorado available to the "rest of the world."

The symposium was very stimulating but, hopefully, it is only the beginning of a tradition for Colorado archaeologists to gather, evaluate, and disseminate information in this manner. The symposium resulted in more questions than answers about Ute archaeology, as might be expected. What is most apparent is how small is the proven knowledge about Ute archaeology and how many problems must be resolved. It greatly raised awareness that Ute archaeology challenges archaeological and anthropological thinking and methods and theories to their limits.

A general conclusion about the symposium is that it demonstrated how much conceptions of Ute archaeology are based upon unproven assumptions. Most presentations about Ute archaeological traits were based on assumptions which have not been proven or disproven to be diagnostic by testing, with several significant exceptions. Similarly, most distributional studies of so-called

Ute archaeological traits were based on traits not proven by testing to be diagnostic Ute traits. Field investigation reports of the symposium should have provided hard data about Ute archaeological traits but resulted instead in confusions about Ute trait distributions.

An important problem is apparent, to me, from an overview of the papers. It is necessary to clearly identify what is known about Ute archaeology from what is assumed about Ute archaeology. Papers in the symposium which contribute the most to Ute archaeology are those which tested propositions and resulted in proven knowledge. Paul Nickens' and Marilyn Martorano's papers exemplify this approach and are sound contributions, yet even they do not result in definitive identifications of Ute archaeological traits.

TRAIT ANALYSIS

Nickens' and Martorano's papers were concerned with Ute burial patterns and culturally peeled pine trees, respectively. Despite clearly identifying the traits and their distributions as cultural patterns related to Ute archaeology, these two excellent papers did not demonstrate the the distinctive burial and peeled tree patterns are diagnostics of Ute archaeology and can be contrasted with patterns of other societies. The pattern of rapid crevice burials with destructions of personal property practiced by the Utes was shared with all Athabascans as a general pattern (Opler 1983:377-378). Peoples other than Utes also lived in areas of Colorado where Utes lived and had similar utilizations of barks of trees and peeled pine trees. Some of these peoples, such as Athabascans and Puebloans, are identified by Martorano. Members of another group identified as having widely practiced cultural peeling of trees in California, the Wintu, moved to the Upper Huerfano River Valley in 1874 (personal communication from Glenn Farris to William Buckles, August 13, 1985) and could have contributed to some peeled trees. Some Hispanics were integrated with Utes and could also have practiced cultural peeling of trees, though evidences of such practices are not known to me at present.

The two papers represent carefully designed research and offer excellent comparative information about burials and culturally peeled trees. They may be indicative of dilemmas concerning Ute archaeology in the sense that the two patterns investigated are widely distributed patterns linked to cultural ecology and were shared by many other persons. The papers are solid contributions because they produce factual bodies of information which advance our knowledge of the Utes and of cultural adaptations.

Doug Scott attempted to identify if wickiups are a diagnostic Ute characteristic. He investigated conical timbered lodges or "wickiups in the woods" and demonstrated that wickiups were constructed by many societies and therefore are not diagnostic traits for Ute archaeology. His review is limited and does not attempt to discover if Ute traits could be identified through discrete trait analyses of wickiups which might distinguish Ute wickiups from wickiups of other societies. His paper demonstrates a need for comparative information about these structures and the potentials that the structures (in excess of 234 reported in Colorado) have for research questions. Not investigated in detail by Scott, but available as resource information about such structures, are illustrations and descriptions of

wickiups and related structures from many societies (e.g. volumes of The Handbook of North American Indians) which can widely expand our knowledge and be used for models with which to construct ethnic and other classification systems and formulate tests for archaeological remains.

Scott's conclusion that wickiups are not ethnic group specific will hopefully be heeded so that other researchers, such as Reed in his paper in the symposium, do not identify wickiups as diagnostics of Ute archaeological sites.

Horn's contributions to the symposium include stimulating archaeologists to look beyond the stereotypic view that Ute Indian presences are identifiable only by aboriginal cultural materials. He makes us aware that the most recent Ute sites will have Euroamerican artifacts which may not be recognized as having relevances to the Utes and may be erroneously considered to be intrusive. His common sense presentation offers sources of information and perspectives about Euroamerican artifacts for developing a sequence of diagnostics useful for identifying chronological and culture contact relationships of Ute sites.

Horn's paper includes a tabulation of Ute sites with Euroamerican goods and a conclusion that the firmly dated sites are all from the middle to the late 19th century. One context not recognized by Horn as an 18th century occupation with a Euroamerican artifact is Site 5MN42, wickiup 2 (Buckles 1971:654) which was dated by Dean (1974) at A.D. 1762++v. A brass knife blade was found in the structure. The two sources of information have not been combined because I have not published the dendrochronology dates, although the information has been disseminated to some and Reed has referred to the associations in his paper in this symposium.

The difficulties of clearly identifying traits which are Ute traits are exemplified by the preceding papers which represent critically composed evaluatory strategies. Other papers were not as critical and may promote erroneous conceptions about Ute diagnostics.

Papers based, in my opinion, on assumptions about Ute traits which need the most rigorous testing are those of Kane and Hill, Reed, Cole, and Baker. These papers include assumptions about what are diagnostic Ute traits which they failed to test, or did not adequately test. Though these papers are less critically composed than other papers, they are stimulating and make other contributions. The papers are concerned with ceramics (Hill and Kane, Baker, and Reed), projectile points (Reed and Baker), other artifacts (Reed), wickiups (Reed), historic artifacts (Horn) and rock art (Cole.

Contributors who uncritically assumed the diagnostic values of some traits for Ute archaeology are following a tradition of uncritical assumptions which was contributed to by myself (Buckles 1971) and other investigators. For example, I assumed that all plainware pottery found on wickiup sites in areas exclusively occupied by Utes were Ute ceramics, but I now believe that this is an erroneous assumption, as will be discussed below. Many other assumptions about Ute archaeology and prehistoric archaeology in west-central Colorado have been promulgated by me and others and need to be tested and revised as warranted. Robert Biggs recently contributed funds for radiocarbon dating some components of the "Uncompahgre Complex" and the dates

acquired with the uses of the funds do not confirm some of the original estimates of ages of parts of the chronological sequence. These dates and reassessment of the complex will be reported in the near future as part of my contribution to maintaining a sceptical attitude about the archaeology of the area.

Hill and Kane investigated ceramics they believe to be diagnostic of Ute ceramics by using limited ethnographic analogies to identify contrasting ceramic traditions for the Anasazi, Navajo and Utes. They tested the analogies by performing temper and thin section analyses and used their definitions to build predictive models of Ute settlement patterns. They advocate Ute ceramics as having had gneissic granite grus (micaceous) tempers and constructions by coiling and paddle and anvil shaping of surfaces. Ute ceramics, as defined by Hill and Kane, contrast with Navajo and Anasazi ceramics which had different tempers and were made by coiling with preparations of the surfaces by scraping. Hill and Kane did not take a broad enough vie of types of ceramics associated with Ute sites and fail to recognize that diverse ceramic types exist instead of one type and that some of the ceramics may not have been manufactured by the Utes. There are ceramics found widely with Ute sites which are not strongly micaceous and which can be coiled without obliterations of the coil marks by paddle and anvil shaping. I predict that these ceramics will ultimately be identified as being of probable Ute manufacture but also predict that some micaceous ceramics, similar to what Hill and Kane identify as Ute ceramics, will be found not to be diagnostic of Ute ceramics. If Hill and Kane's identification of Ute ceramics is in error, then the sites they have identified as Ute or non-Ute by erroneous classifications will have to be reclassified.

Micaceous plainware ceramics shaped by paddle and anvil, the ceramics which Hill and Kane identify as Ute ceramics, have been recognized by Baugh and Eddy (1987), myself, and others as being variable and having widespread distributions in contexts which include occupations by Utes, diverse Athabascans, Puebloans, Hispanics, and others. Baugh and Eddy recommend that such micaceous ceramics should not be identified with ethnic specific classifications (which have been widely applied) but be classified as Sangre de Cristo Micaceous Ware, a more "generic" classification. It is possible that the wide distributions of these micaceous ceramics are related in part to trading relationships of peoples of the southwest and adjacent areas.

Reed has accepted micaceous ceramics, wickiups, Desert Side Notched and Cottonwood Triangular Projectile Points, and "Shoshonean" knives as diagnostics of Ute archaeological sites. These traits, I argue, are multiethnic traits occurring in archaeological contexts other than those of the Utes. The micaceous ceramics are discussed above as multiethnic in distributions. Reed, however, identifies them as diagnostic Ute ceramics, in part, because I (Buckles 1971) identified them as a Ute diagnostic because of their occurrence at Site 5MN41, a wickiup site. This site,dated by dendrochronology, was used by Reed as a central part of a chronological sequence of Ute material culture distributions.

Also occurring at Ute wickiup sites I reported are other traits accepted non-critically by Reed in his paper a Ute traits. They include wickiups, identified by Scott as non-diagnostic, the above named projectile points, and Shoshonean knives. Desert Side Notched Projectile points are also identified

by Baker in his paper as a Ute diagnostic. The projectile points from Ute wickiup sites I reported, which are referred to as traits by Reed and Baker, were not found through my investigations of the sites but were found by collectors and are of unknown proveniences. Desert Side Notched and Cottonwood Triangular Projectile Points are ubiquitous in the west and occur also in areas where Utes were not distributed, and therefore cannot be diagnostic of Ute sites. Moreover, projectile points of other styles have been found with historic Ute sites indicating that there are not just two diagnostic styles of projectile points which characterize Ute sites. "Shoshonean" knives are, I predict, not a Ute diagnostic either. The very name "Shoshonean" and their distributions outside the Ute range of sites demonstrate that they are multiethnic in distribution.

Theories are made to be tested and replaced if disproven. Sally Cole has tested propositions I made about Ute and other petroglyphs and accepts some propositions and rejects others. Her propositions and methods should now be tested. Petroglyphic research has many potential research pitfalls but can be very relevant for theory building and testing about human social and cultural behaviors, particularly about occupations such as the Utes with very few other remains diagnostic of ethnic and other affiliations. Sally Cole concurs with me in identifications of historic Ute petroglyphs and their contrasts with petroglyphs of other peoples. However, Sally goes further with identifications of Ute petroglyphs than may be warranted, in my opinion, and attempts in her paper to interpret functions and meanings of some of the glyphs and these interpretations are based on assumptions rather than on tests of relationships.

Petroglyph research must be designed very carefully and I believe Cole needs more rigorous methods and techniques to develop and test propositions about identifications and "interpretations" of Ute petroglyphs for greater credence. Some of the identifications and interpretations I believe too speculative are concerned with "imitative or reactive" Ute petroglyphs, identifications of Ute petroglyphs without historic content or historic contexts, and identifications and interpretations of material and nonmaterial phenomena believed represented in and by the glyphs. Examples of what I do not believe are justifiable identifications are of a "bird track" on a "shield of a foot soldier" at 5DT1 (Figure 1 in Cole's paper and a site I originally recorded), "human figures in bearskins" (how does she know that they are not simply bears?), "one pole ladders," "rawhide visors or sunshades," etc.

The stylistic analyses of Sally's paper are solid contributions, particularly for comparative purposes. The interpretations of meanings and functions of petroglyphs, however, weaken the value of petroglyph studies as objective scientific contributions. One of the good things about the "Ogam" controversy is that archaeology is also on trial and must demonstrate the differences of scientific analyses of petroglyphs and the subjectivity of Ogamists and other advocates. I admire Sally and her contributions very much, but believe that she must draw a tighter line concerning what we can know and what is in the realm of speculation.

TRAIT DISTRIBUTIONS

Previous discussion about traits believed to be diagnostic of Ute archaeology stated that their diagnostic values have been largely assumed and not proven or disproven. Distributional studies of traits done by some of the participants in the symposium are subject to criticisms similar to those levied against the identifiers of specific traits. Two authors of distributional analyses, Nykamp and Kight, did incorporate considerable scepticism into their distributional studies and concur that some "Ute" traits and some "Ute" sites are not valid because their identifications have been based on assumptions.

Bob Nykamp, in cooperation with Jay Beyer of the Colorado State Historic Preservation Office, compiled a data base of 438 sites in 33 counties recorded as Ute or Numic sites over the last 55 years. These Ute/Numic sites represent 1.2% of the 36,000 prehistoric sites recorded in Colorado, which is not proportionate to the importance of the Utes in the heritage of the state. His interpretation of the data base is that the majority of sites identified as Ute sites have been recorded where cultural resource management activities have been concentrated in recent years, which is in northwestern Colorado. Nykamp did not attempt to validate the accuracies of the records or field check the sites, but is of the opinion that many errors exist and that this is not an accurate accounting of Ute/Numic sites identified to date in Colorado.

Though Nykamp assumes that errors exist in the data, the data represents potentials for testing many theories about Ute traits and distributions. Approximately 100 of the sites, for example, were recorded as "architectural" sites which should mean occurrences of wickiups or other structures which can be analyzed for discoveries of diagnostic Ute architectural traits. Ceramic sites can similarly be investigated to test theories about types and distributions of Ute and other ceramics.

Bill Kight takes some of the bloom off plans to use the potentially rich data base of Ute sites by his evaluations of 13 site forms recorded for "Ute" sites in Eagle County and 16 site forms recorded for "Ute" sites in Garfield County. His evaluation was concerned with the credibility of the criteria used for identifications of Ute sites. He accepted as Ute sites those which had architecture such as game platforms or wickiups, micaceous ceramics, and petroglyphs representing post A.D. 1650 phenomena, especially the horse. His discovery was that only three of the 13 sites met the criteria in Eagle County and only four of the 16 sites met the criteria in Garfield County. Even with the caution exhibited by Kight, it is possible that micaceous ceramics (see preceding discussion of validity of traits) may not be valid for identifying Ute sites and the number of valid sites may be decreased. His conclusion is that Colorado archaeology is in a sad state of affairs and that the poor descriptions and identifications of Ute sites are related to sloppy methods and theories of Colorado archaeologists. His discoveries for these two counties probably extend to the rest of the state. My experiences in searching site files leads me to conclusions similar to those of Kight.

Nykamp and Kight demonstrate that very poor site reporting standards are used in Colorado which permit errors of identifications and negate the usefulness of distributional studies of so-called Ute traits and sites at this time.

Reed, Baker, Horn and Cole propose chronological sequences of Ute occupations and petroglyphs based upon distributions of diagnostic traits. Reed's sequence is concerned with Ute archaeology in general extending into prehistory and Horn's sequence is concerned only with sites with historical remains. Baker's sequence is concerned only with a local area in west-central Colorado. Cole's sequence is of petroglyphs in western Colorado. I think it fair to assess the values of the proposed sequences as being dependent upon the diagnostic values of the traits used to build the sequences. Most of the traits have previously been discussed.

It is apparent to me that we are still at the stage of evaluations of a broad range of basic data and a cohesive research design is badly needed to test propositions about Ute archaeology to build a valid body of information for building and testing predictive distributional models. For this and other reasons, I think it is premature to construct culture histories such as Alan Reed's proposed chronology of Ute archaeology. Reed's scheme of four phases and of cultural hiatuses is, in my opinion, very speculative. The system assumes a prehistory for Utes in Colorado but this has not been proven and until proven we should not define prehistoric Ute phases. If we do, we could be in danger of binding Ute archaeology to a classification system which does not "fit," comparable to the "Basketmaker I" problem. Alan's hiatuses are based upon gaps in distributions of radiocarbon and other chronometric dates used to predict Ute demongraphics. I think the hiatuses are constructed on very shaky theoretical grounds. Lack of dates can be related to low or no budgets, lack of mitigations, subjectivity in selections of sites and problems to investigate, and a multitude of other explanations other than "real" demographics.

Some of Reed's chronology seems to be based on misunderstandings of earlier work. For example, he appears to misunderstand some of my conclusions concerning Ute archaeology (Buckles 1971:1157-1175 and elsewhere). I was very cautious about making assumptions about societal relationships of prehistoric and historic material culture and concluded that I had not proven the existence of a Ute prehistory and did not posit an <u>in situ</u> development, which Reed states.

Ethnographic and ethnohistoric research also needs to be conducted in greater detail for Reed's scheme to be accurate for historic phases and their contents. For example, the reservation period is dated by Reed from 1880 to the present but more accurately dates from as early as 1855 in Utah and 1863 in Colorado (Clemmer and Stewart 1986). Moreover treaty agreements between Anglos and the Utes were made as early as 1846 and accompanied by annuities, dependencies of Utes on Euroamerican goods, land concessions by the Utes and other changes which could be considered reservation-related. Another example of an error by Reed is his selection of wickiups as characteristic of pre-19th century Ute occupations. Ample illustrations of wickiups indicate they were common structures used into the 20th century.

Reed's paper is stimulating but it is more appropriate to construct a sequence after the contributions of this symposium have been considered and responded to than before the symposium.

Baker offers a culture change model appropriate, in his opinion, for archaeological identifications of historic Ute sites in a local area of west-central Colorado. His model was stimulated by excavation of the Roatcap Game Trail Site on the south side of Grand Mesa which Baker interprets as having an historic Ute component.

Baker's model is presented to make archaeologists aware of the shortcomings of current models for Ute archaeology which do not consider the variability of local adaptations. His model is concerned with changes from traditional culture through accelerating culture contacts up to the loss of autonomy and movements to reservations. The objectives of the paper are good but the execution is, in my opinion, poor. The good ideas in the paper are masked by incorporations of too much speculation, obtuse details, etc. Part of the confusion appears to me to be related to the paper being a mixture of parts taken from his site report (Baker 1987) and parts written after the symposium (unlike the other papers) with incorporations of ideas from other papers presented at the symposium.

The model used by Baker is a five part phase of culture change utilizing a model proposed by Leacock and Lurie (1971), for North American Indians in general. The application to the local area is by fitting the archaeological component into one of the phases of change, the Early Contact Phase. The overall model has considerable predictive utility but, in my opinion, much more detailed knowledge and evaluations of Ute ethnology and ethnohistory must be built into the model and more archaeology available than one component of one site. Steve reaches out to diverse sources to build his model but the bulk of it is based on speculations rather than facts. Similar to the problems of Alan Reed's model, Baker's model needs testing of the propositions to build a base of knowledge rather than fitting the scheme to information which may prove erroneous. Some of the problems of the model are related to the excavated information from the site, to be discussed in a following section.

This paper is a reversal of Baker's previous position that archaeology should be concerned primarily with material culture and not with more holistic concerns. Since Baker and I have debated over the years about archaeological methods and theories, it pleases me that he has switched to a more holistic approach.

Horn advocates using the "direct historical" approach for identifications of Ute archaeological sites but does not offer how to distinguish ethnic and other differences if the data base is primarily of Euroamerican goods. For example, if a site is occupied by Utes dependent in large part on Euroamerican goods, it is possible to tell this and to recognize that the site is not a Navajo site or a site of motley members of fur trade parties which could have included Indian wives, Delawares, and other ethnic groups? Similar problems exist with attempting to identify changes over time, as I have learned in an earlier application of the direct historical approach (Buckles 1971). This earlier application did not achieve conclusive results because of limitations of types of sites, lack of architectural and other continuities, multicomponent mixtures of sites, and other reasons. The challenge of Horn is to develop ethnic predictive models and models useful for testing changes over time and to find archaeological contexts for testing the models.

Distributions and relationships over time and space of Ute and prehistoric petroglyphs are subjects of Cole's paper. Her paper had previously been discussed concerning some of her trait identifications and interpretations. Criticisms can also be levied, I believe, about a petroglyph sequence she proposes spanning prehistory and history which is related to the Utes. One of the major problems is her advocacy of similarities but distinctions between historic Ute petroglyphs and late prehistoric petroglyphs. She rejects the Utes as authors of the late prehistoric petroglyphs but attributes similarities of the petroglyphs of the two periods to historic Ute imitations or reactions to reexisting petroglyphs. This explanation is too convoluted for me to accept unless she can demonstrate its validity.

Cole's explanation for Ute imitations of earlier petroglyphs is in part related to very limited historic and ethnographic sources about Ute petroglyph manufacturing which I believe she takes too literally. A ramification of her explanation is that it negates a functional and holistic model of culture which assumes that it is an adaptive mechanism and changes in any one part are related to changes in the other parts. Petroglyphs are linked to other parts of culture, I propose, and not isolated phenomena. If the Utes imitated other petroglyphs as a cultural pattern it should be expected that they shared cultural similarities with the peoples who produced the petroglyphs they were imitating. Bettinger and Baumhoff (1982) provide a model which Cole apparently uses for explaining population changes of Prenumic and Numic peoples and petroglyphs are among the indicants of the changes. It appears that Cole has made accommodations to the Bettinger and Baumhoff model but has not tested it. The challenge for Cole is to test her propositions.

ARCHAEOLOGICAL CONTEXT INVESTIGATIONS

Field investigations should provide hard data about Ute archaeological traits and two field investigations, by Connors and Baker, were reported. The results of the investigations contribute to knowledge about Ute archaeology but also contribute to confusion about the traits of the archaeology. I do not have a copy of the paper presented by Connors and discussion of it is based on his oral presentation. The discussion about Baker's site is related to his written paper, but also to a report of the investigation (Baker 1987) and an illustrated field report made by Baker at the 1988 meeting of the Colorado Council of Professional Archaeologists.

Connors' paper concerns a historic wickiup site near Grand Junction which yielded considerable cultural material but did not have some of the traits widely assumed to be diagnostic of Ute archaeology, such as Desert Side Notched and Cottonwood Triangular Projectile points, ceramics and Shoshonean knives. The lack of congruence of the artifacts of the site with artifacts predicted to be Ute diagnostics casts doubt about the diagnostic values so some of the traits. Artifacts other than the predicted diagnostics were found, however, including projectile points of distinctive styles.

Steve Baker's site is a multicomponent stratified site of which the uppermost component only is considered a historic Ute component. The component, according to Baker, is related to a summer-fall occupation by a "...walking Sabuagana Ute household which was participating as part of deme cluster, in procurement activities emphasizing hunting..." The temporal and ethnic identifications of the component are based on presences of presumed

Ute sherds, a Desert Side Notched Projectile point, two radiocarbon dates (140+-50 BP and 70+-60 BP) and occupation prior to growth of a tree on the site surface after 1858.

Baker states that the "...assemblage is notable because of its preservation, comprehensiveness, purity of functional and ethnic association..." Identification of the relationships of the component, however, depends less on what are to me confusing archaeological evidences than assumptions about its age, social, cultural and other relationships that do not derive from the archaeology. The component relationship is equated with a group called the Sabuagana observed in the area by the Dominguez-Escalante expedition in 1776, but there is not assurance that the component dates from the time of the expedition. Assumptions about social organization principles of the Utes are derived from generalized ethnographic information written about Numics of the 19th and 20th centuries.

Baker has bravely attempted to interpret the material remains of the component according to information about Numics but I think that his interpretations tend to confuse rather than to use archaeology to learn about culture and cultural systems. His approach to the site appears to be more a verification of presences of behaviors attributed to Utes than a process of learning from archaeology. Bakers' assumptions about social organizational relationships of the site exemplify how confusion may develop from such methods. He describes the occupation as a household of a deme cluster, yet the site was only sampled by the excavation and therefore it is not known if more than a household was present. Direct evidence of the presence of a household, moreover, was not present since no structural remains were found other than a hearth. The term "deme cluster" offers a confusing conception of Ute settlement patterns. Murdock (1945:62-62) identifies a deme as a large endogamic and non-unilinear local group bound by residence and consanguinity. A "deme cluster," I assume, would be a group of demes and could be interpreted to be a very large population living together but not intermarrying. Baker needs to better define his terms and to test his propositions.

Ute archaeology is very confusing to define but is not aided by a methodology commonly advocated to identify it. A sort of circular reasoning is used which defines the predicted diagnostics of sites from non-archaeological information which is predicted from assumptions about the archaeological contents of sites. These assumptions, as has been demonstrated, have not been tested. At some point the actual artifacts of investigated sites will have to be adequately analyzed for their diagnostic values and, as Baker points out, this may turn out to be predominantly flake tools and debitage.

OVERALL COMMENTS

This successful symposium will hopefully be followed with future Ute Archaeology symposia. The predominantly sceptical approach I took in discussion of the papers does not do justice to the very positive contributions of all of the papers and their stimulations for future research. This symposium can be likened to the first day of practice for a team sport or the first day of boot camp. The participants are diverse with some rookies with perspectives much different than we old veterans. Some are team players, others are

egotists, and many other personalities are involved. The motley crew, and others, will hopefully reconvene in the future with the benefits from this first symposium to fulfill the gaps, needs and potentials revealed. I anticipate that such future meetings will have greater clarities of purposes, mutual understandings now only vaguely perceived, and in other ways be much more of "team" with the camaraderie of having worked and achieved together.

Many data gaps and needs are apparent from my discussion and from recommendations of papers. Many other subjects also need systematic evaluations for identifications of gaps, needs and actions to advance knowledge about Ute archaeology. Foremost of the needs are tests of criteria for identifying Ute archaeology. Ute diagnostics must be proven not to be traits of other peoples. We need to discover contrastive traits which distinguish groups, areas and temporal periods with Ute archaeology. Ute and more generalized Numic archaeological similarities and differences need to be explored and models, such as the Bettinger and Baumhoff (1982) offering, need to be tested with the results of such studies. These and many other problems have to be resolved by operationalization and careful research strategies.

The most successful of the papers, in my opinion, were those which were "manageable," such as those of Paul Nickens and Marilyn Martorano. They were able to clearly define their objectives and achieve them or to identify what is necessary for achieving their objectives. These papers can provide models for analyses of other traits related to the Utes, such as ceramics, wickiups, projectile points, debitage and other traits discussed by symposium participants.

Coordinated studies of some traits, such as ceramics, can be an excellent way to continue the cooperative spirit of the symposium and contribute to making sense out of identifies, distributions and diversities of Ute traits. Kane and Hill contributed good ideas for a study of Ute and related ceramics and a cooperative expansion of such a study can reveal the wide range of so-called Ute pottery and relationships to other ceramics in the west. A symposium on Ute and related ceramics should be included, with participants bringing samples for comparisons from which a taxonomic system could be derived. A model can be a recent conference reported by Baugh and Eddy (1987). Thin-section analyses, such as reported by Dave Hill in this symposium, could greatly enhance the analyses of ceramics and contribute discrete attribute information for a taxonomy.

The holistic approach of anthropology was used by many of the authors but not by others. The need for cross-cultural perspectives to identify if traits are diagnostics only for Utes, cited previously, is a case in point. Some of the papers were exclusively archaeological and failed to utilize a holistic perspective about Ute culture and the cultures of other peoples. This was manifest in lack of awarenesses of information from ethnohistory, ethnography and other sources.

Expansion and sharing of the data base to make a more holistic approach is needed. Stimulation will, hopefully, come from publication of the papers of the symposium to "bring out" skeletons, potsherds, other artifacts, records and knowledge of laboratories, museums, and elsewhere. Other archaeological subjects not studied as part of the symposium but grist for research can be "forts," game platforms, eagle catching pits, game drives, religious

shrines, other structural remains, trails, site locations, resource utilizations, ecological adaptations, and many other characteristics not now adequately known.

Ethnographical, linguistical, cultural-ecological, ethnohistorical, museum and other knowledge, approaches and sources need to be searched for holistic model building and testing. Responses to criticisms of some papers of the symposium can be searches for illustrations and examples of Numic traits in these sources not adequately identified or analyzed. Museum collections and illustrations of historic arrows, as an example, can be analyzed to test the diagnostic values of specific projectile point types for Ute and other Numic archaeology. Horn, in his paper, advocates historical and archival searches to discover historic ethnic group specific Euroamerican artifact acquisition, consumption, and other patterns. Omer Stewart should be nominated to the National Register of Historic Places as a national treasure as a means to stimulate persons to utilize his voluminous files on the Utes.

Negative information as well as positive information should be sought and evaluated. Computer searches of the State Historic Preservation Office files can lead to knowledge concerning where Ute resources are not located and also where other ethnic group resources have been identified. This information, and similar information, can be evaluated to assess cultural and ethnic variabilities and limits and can be grist for developing research questions about explanations.

Ute archaeology cannot be studied without perspectives about the archaeologyof other peoples. We need predictive models based on archaeological, linguistic, ethnographic, ethnohistorical, and other knowledge about Athabascans, Comanches, Shoshones, Arapahoes, Cheyennes, and other peoples to test archaeological relationships of phenomena. If we are to identify Ute archaeology, we need to develop predictive models which permit identifications of contrastive culture patterns for ethnic group identities. None of the traits discussed for the Utes were proven to be ethnically diagnostic. The mortuary pattern, peeled trees, wickiups, some ceramics, projectile point styles, historic artifact associations, etc. are all shared widely by other adjacent peoples and have to be investigated cross-culturally to discover if there are contrastive elements which may be diagnostics for the many peoples.

Searches for diagnostics should not be only for the identification purposes of the cross-cultural searches advocated. Identifications of similarities and differences are significant in understanding cultural processes and principles and purposes of the cross-cultural approach can be to attempt to explain why relationships do or do not exist and to develop better classificatory and explanatory systems.

The symposium papers indicate some of the problems in contemporary archaeology with the mixtures of Cultural Resource Management and "academic" approaches, yet the symposium also represents resolutions of some problems. The predominance of CRM archaeologists in the symposium dispels the stereotype of them as individualistic and monetarily oriented. Most of the papers, however, do represent individual efforts without cooperations and consultations with others and it is clear that sharing of knowledge is one of our major problems. It is apparent, particularly from Nykamp's and Kight's

papers, that CRM-related site reporting can be of very poor quality and threatens to leave a less than admirable legacy for the future of Colorado archaeology. Clearly, there are many "professional" problems to be resolved which are related to Ute archaeology and its understanding. Symposia, such as this one, and the publication of the papers, can go a long way towards bridging the gaps which separate CRM and academic approaches, but more is necessary.

Scott indicates the lack of federal responsibility for the fragile remains of Ute archaeological sites and leaves us with a difficult to accept conclusion that nothing will be done in the immediate future to manage these sites. Perhaps a collective action of the Colorado Council of Professional Archaeologists could be to do some "action anthropology" and petition federal agencies to act responsibly towards management of Ute sites rather than treating them with "benign neglect."

Related to lack of responsibility of land managers for Ute archaeology is the need for more archaeologists to be involved in the archaeology. We need compulsive people who will do research on the subject, possibly as "academic research"; although, to judge from opinions of Kane and Hill, we should not expect academicians to get involved in such mundane research. Resolutions of some of the problems can come from graduate advisors who can stimulate theses and dissertation projects related to the unmet needs.

We will need innovative methods and theories to make Ute archaeology understandable. Considering how far archaeological methods have come in such a short time, it is probable that new and relevant methods and theories can be devised for advances in Ute archaeology. Much can be done, however, with available methods. For example, very few wickiups have been dated by dendrochronology and radiocarbon dating and none dated, to my knowledge, by archaeomagnetism or thermoluminescence. Ceramics, however, have been dated by the latter technique (Benedict 1985). If there is a lack of funds for dating, perhaps some of the dates can be obtained as contractual necessities to evaluate significances of resources on public lands.

An effort is needed to make the contributions meaningful for the Utes, other indigenous peoples, and our collective society. Archaeology concerned with historical societies needs to be more than esoteric archaeological theories and knowledge but to be benefits to the people, and hence a more humanistic archaeology. We need to be very concerned with what and how archaeology contributes to the Utes and others of our society so that it is humanistic and at the same time is a science. Examples of direct benefits to the Utes can be burials and petroglyphs. Burials and information about burials can be compiled, analyzed and returned to the Indians. Petroglyphs can be analyzed in manners which attempt to discover if they can have specific meanings to descendants of Utes and others, or can aid them in constructing culture histories and understanding changes. Ute archaeology, and the archaeology of other indigenous peoples, is an opportunity for archaeologists to demonstrate that our science is more than a distant and unrelated activity to our society.

Paul Nickens is be lauded for organizing a very stimulating symposium. All of the papers contribute greatly though I obviously do not agree with all

statement or ideas represented in the papers. Science should be conducted in an environment of scepticism and I have tried to offer constructive comments to further science. I hope that my intentions will not be misunderstood and that the comments will not dampen the interests of any of the contributors in pursuing our collective goals relative to Ute archaeology.

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