

THE LAND BETWEEN

PREHISTORY

The South Unit of the Ashley National Forest is an upland area located between Nine Mile Canyon and the Uinta Basin, two of the West's most famous rock art locales (Figure 1). Although rock art is sparse in this particular area, abundant archaeological features help us understand the people who once lived in the region. The section has a very diverse range of vegetation ranging from pinyon-juniper at lower elevations to mixed

conifer and sagebrush steppe in its higher reaches. This corner of the Tavaputs Plateau has deeply incised canyons trending toward the northeast. Although there is limited permanent water, an incredible array of wildlife lives on the unit. For years, we thought the first people to visit the South Unit occurred 3,000 to 4,000 years ago. However, in the summer of 2007, we discovered a series of late Paleoindian sites (9,000 to 8,000 years old) at the highest elevations of the unit. Today, sagebrush steppe with scattered aspen groves

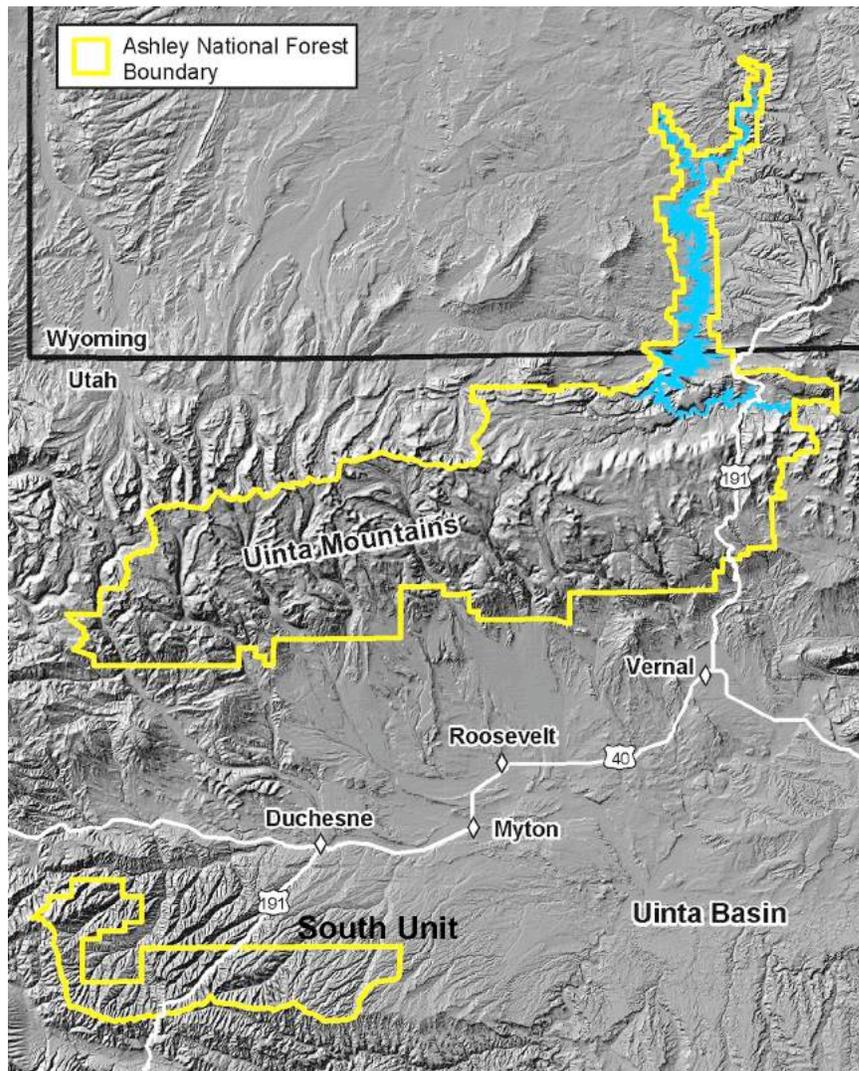


Figure 1. South Unit and Nine Mile Canyon are located in lower left of map.

covers this area, although in the past this area was probably a grassland or tundra with abundant game, perhaps only seasonally during the summer. These recently discovered sites may force a rethinking of how the Colorado Plateau was occupied during the Paleoindian period.

A small number of projectile points from the period between 8,000 to 3,000 years ago have also been found. Archaeologists refer to this era as the Archaic Period. The people who visited the area still mostly hunted game. These hunters probably did not stay long in the area and there may have been long periods when no one visited the region.

This pattern of occupation changed 2,500 years ago as more people were in the area. They used rock shelters as temporary camps; unfortunately later occupation stirred and mixed the remains from the first camps. One intact hearth, from 2,400 years ago, indicates they hunted large game (elk and deer) and ate plants like prickly pear cactus, grasses, and cheno-ams (a variety of weedy plants like lambs quarter and goosefoot). Surprisingly, they also appear to have had maize, although this is very early for its occurrence.

During the Fremont Period (2,000 to 800 years ago), the area was heavily populated especially in the pinyon-juniper zone. People liked the resources and rocks available in this locale. Large boulders provided shelter and erosional catch basins collected water for drinking.

Because of its upland location, we hypothesized the South Unit would display the same Fremont logistical pattern as the Uinta Mountains. Instead, the excavated sites to date exhibit a markedly different occupation pattern. 42Dc1424, the Anthro Mountain site, is an open site in sagebrush steppe near aspen groves at 8800 feet in elevation. Evidence of a prepared clay floor and storage cists suggest this was a residential site where people lived for extended periods. A wide array of tools and a mix of floral and faunal resources recovered at the site support this notion (Estes and Loosle

2004). The other sites that have been excavated are all rockshelters with very brief occupations. Stays were short, maybe just overnight, and the mix of cheno-ams, pinyon nuts, lagomorphs, and other game all suggest limited gathering for immediate consumption. South Unit sites have the first unequivocal evidence from northeastern Utah that pinyon nuts were gathered for consumption. In at least two sites, two kinds of cheno-am seeds were gathered and processed together (Loosle 2005; Stertz and Loosle 2006). While the Anthro Mountain site appears to represent a warm season residential site, the other sites had briefly-occupied camps. (Residential sites are where people built more durable structures and lived for weeks or months. Camps may have only been occupied overnight or for a few days.) The presence of maize and Uinta quartzite indicates the occupants were closely tied to the lowlands. The gathering of cheno-am and pinyon nuts suggests the rockshelter sites were occupied in the fall, like the Uinta Mountain sites, possibly after the maize harvest in the lowlands. The majority of Fremont prehistoric sites are in the eastern end of the South Unit. Adjacent to these ridges is the early historic route through Gate Canyon. Perhaps the sites represent a prehistoric travel route between Nine Mile and the Uinta Basin.

Ceremonial use is another possibility for visits to the area. A number of unusual rock outlines or features along the South Unit's southern crest may mark vision quest locations. The spectacular view from the heights seems like an appropriate location for this type of activity. Perhaps the travelers were moving to these locations to participate in religious activities. During a vision quest, a support group (usually members of the individual's family) would accompany the person and set up camp near the vision quest location to wait for the initiate's return (Clifford Duncan, personal communication, 1996). The Anthro Mountain site is in a suitable location for such an encampment, however, it was a residential site occupied longer than would be expected for

a vision quest camp. (The rock art on the South Unit is not particularly helpful in assigning cultural affiliation.)

Only a few panels have been discovered to date, over half of which are Ute. The large anthropomorph at 42Dc1245 seems typical Classic Vernal Style. However, the geometric and zoomorphic figures at 42Dc2278, another South Unit rock art panel, do not fit neatly into any recognized style (Clay Johnson, personal communication, 2007).

Although physically closer to Nine Mile Canyon, South Unit sites have dominant ties to the Uinta Basin. Numerous pieces of Uinta quartzite groundstone (Figure 2), even metates, and lithic material from north of the Uintas (Tiger chert [Figure 3], Sheep Creek quartzite) illustrate this connection. South Unit Fremont pottery is all Uinta gray, including a sherd from the Anthro Mountain site that has identical paste and temper to a sherd found near Flaming Gorge Dam over 70 km away (Estes and Loosle 2004). Nine Mile Canyon does not have particularly distinctive cultural attributes or material culture, except for architecture and rock art. Because the South Unit has no architecture and little rock art, it is not clear how influence from Nine Mile would be manifest in the South Unit. There is very little data for the time between the Fremont and the beginning of the historic era.

HISTORICAL ARCHAEOLOGY

The Ute were the Native American group living in the area when the Spanish first visited. However, after extensive research, we have encountered essentially no historical documentation the Ute visited the South Unit. The absence of written documentation necessitates that we rely on the archaeological evidence that has been gathered from the area. In spite of the paucity of historical documents, Ashley personnel have documented several sites with diagnostic Ute artifacts (Desert side-notch and



Figure 2. Uinta quartzite two-handed mano.



Figure 3. Tiger chert scraper.

metal arrowheads and Intermountain brown-ware pottery), Ute style rock art, culturally modified tree, and brush drivelines. Once we identified sites that appear to represent Ute activity, we attempted to understand what activities and purposes the sites may represent. Accomplishing this undertaking has turned into a formidable challenge and is still a work in progress. One of the difficulties is that there has been surprisingly little historical archaeological research on the Ute.

There are a few rock art panels in the South Unit depicting horses or individuals riding horses. These figures are so scarce that it is impossible



Figure 4. Horse petroglyph found near a brush driveline and corral complex at 42Dc1609.

to draw any conclusions about typical position, location, style, setting, or execution. Primarily, these panels show the Ute were in the area during the historic period. A Ute style rock art horse near the corral at 42Dc1609 may imply the purpose and group responsible for construction of the feature (Figure 4). Although hunting and gathering may have been common activities on the South Unit, the two dominant archaeological site types we have documented are culturally modified trees and brush drivelines and corrals. Many cultural resource specialists are not familiar with these two features. For instance, a recently developed oil pad on Indian land destroyed a portion of a brush drive-line. These two types of features are often not recognized, even by professional archaeologists.

Pine Trees

Ponderosa pine has a restricted distribution across the South Unit and only occurs in a few patchy locations, generally along canyon bottoms. Yet, a number of culturally modified Ponderosa pine trees (CMTs) have been documented in Sowers and Timber Canyons. There are a few accounts of pine bark eating in the literature. “Small strips of the inner bark of the pine were tied into bundles and later eaten with salt” (Smith 1974:65). Warren A. Ferris (1983:345) offered an account of Indians

in central Utah, “From the mountains, they bring the nuts which are found in the cores of the pine, acorns from the dwarf oaks, as well as the different kinds of berries, and the inner bark of the pine, which has a sweet acid taste, not unlike lemon syrup.” Not just pine, but “sap from quaking aspen trees was considered a great delicacy by all Utes. It was usually collected in June” (Smith 1974:66).

Leo Thorne, a Vernal photographer and collector, asked members of the Ute tribe about the peeled trees. He was told they were peeled to get the inner bark and pine gum for healing purposes. His family generally referred to the trees as “medicine trees” as a result and the term is still used in Vernal. Clifford Duncan, a Ute elder, said in some areas a medicine man would place the person against the scarred portion of a tree as part of a healing or exorcism ritual.

Bertha Cuch, another Ute elder, remembers her grandmother peeled trees and rolled the inner bark into balls that she gave the children as treats. This is similar to an account from a woman who remembers her grandmother collecting the sap to use as a sweetener. Ute elder, Jonas Grant feels the sap was used to waterproof moccasins. The sap may have also been used as a glue to help repair moccasin soles, as a waterproof basket lining (although I think pinyon was the preferred “pine” for this use), and in healing [DeVed and Loosle 2001:6].

Ponderosa pine sap was collected in vats attached to the trees with rawhide. The Ute especially wanted the light foamy part. The foamy part was scraped off with knives. This was done in May or June as the sap began to rise. They would add the sap to foods as sweetener (Clifford Duncan, personal communication, 1998), such as elderberry wine. Another informant said they used the inner bark as chewing gum.

Ashley crews have only noted cultural scars on Ponderosa trees (Loosle 2003). The scars on CMTs are usually rectangular shaped and start a



Figure 5. Culturally modified tree.

foot or two off the ground and extend for about four feet (Figure 5). Cat faces, another common scar, are caused by fires (Figure 6). They are usually triangular shaped, start at ground level, and usually fire blackened. Cat faces are caused by burning material resting against the tree for an extended period of time. Martorano (1989) cored 40 culturally peeled trees from three different areas of Colorado and found the majority of trees were peeled between 1815 and 1875. In contrast to the Colorado examples, scarring on Ashley trees before 1900 is rare (DeVed and Loosle 2001:7, Table 1). This pattern roughly coincides with the removal of Colorado Utes to the Ouray Reservation in the Uinta Basin. We suspect the best explanation for this dating pattern is that the Ute in southern Colorado commonly stripped the bark from ponderosa trees. When they were forced from Colorado in 1882 the practice ceased there, but began on trees near the reservation in Utah (DeVed and Loosle 2001). Martorano's idea that Ponderosa was a starvation food does not seem valid in Utah. We would expect many more trees with large haphazard scars if the peeling was done for survival. Instead, the peeling seems more consistent with occasional use as a sealant, glue, medicine, or sweetener as local Ute informants



Figure 6. Fire scarred, cat face.

have asserted. Martorano (1989) also noted a tremendous number of scarred trees. Until recently, many of our CMTs were isolated and clusters of three to six trees were the maximum density. However, during a recent prescribed burn survey in the Yellowstone drainage of the Uinta Mountains, dozens of scarred trees were noted. In 2006, Heritage crews documented 16 CMTs in Sowers Canyon. At Birch Spring (42Dc2279), we found the first evidence of a camp site associated with CMTs. DeVed (1998) obtained dates between 1931 and 1961 for the tree scarring at this site. The surface trash noted corresponds with this dating (e.g. 1955 trademark on bottle). It would be insightful to investigate this camp more rigorously.

The Ute also used pinyon pine pitch for a variety of things. Most commonly it was as a liner for water baskets. The pitch for baskets comes from pinyon trees and was gathered in the spring. The person would heat up the pitch then throw it in a basket. They would then put a rock in the basket and roll the rock around. The rock pushed the pitch around and helped seal crevices (Clifford Duncan, personal communication, 1998). Some Ute informants do not make a clear distinction

between pinyon and Ponderosa pine, they just reference pine. Stewart (1942:252) noted that all Ute bands reported chewing pinyon pine pitch as gum. Tree scars are very common near the base of pinyon trees, but these are usually attributed to porcupines and other animals. Although a few pinyon trees could be old enough to have 100 to 200 year old scars, we do not know what the culturally created scars would look like, or where on the tree they would be located.

Horse Corrals

Sites or features associated with the management of livestock are common on the South Unit with three site types the most obvious: camps, corrals, and drivelines. Camps have an abundance of tin cans, glass, wire, utensils, coffee pots, and other items that typically date to the early twentieth century. The majority of camps are in canyon bottoms and probably result from Anglo cattle ranching after 1905 when the Ute Reservation was opened to homesteading. Brush corrals and drivelines, however, tend to be on ridge tops and generally have few associated artifacts. We believe most of the brush corrals and drivelines are older and related to Ute horse management. The horse was a critical part of Ute society in Utah by the 1800s. More about Ute horse culture will be discussed later.

Corral Sites

Several driveline sites have been recorded by Ashley Heritage crews. Some of the sites appear to have been reused with later or reconstructed corrals and drivelines. This reuse has created a sometimes bewildering array of features at the sites. Firewood collecting has further complicated the deciphering of the arrangement and organization of the features. 42Dc1609 is the simplest and most straightforward of the corral complexes because it contains a single pair of drivelines and corral. This site layout helps us understand the organization of the other sites. The two wing walls were made primarily of juniper branches and limbs that have been metal ax cut.



Figure 7. Branches laid against a tree.



Figure 8. Branches forming an X.

Often entire small trees or large uncut branches were integrated into the walls. The walls were placed between living trees and incorporated the living branches into the matrix of the wall (Figure 7). There did not seem to be any pattern to the arrangement of the branches. Sometimes the limbs were all laid diagonally in the same direction between trees and in other spots they formed more of an X pattern (Figure 8). It appears that the walls were originally three to four feet in height.

The corral and driveline are at the north end of Figure 9. The north driveline wall extends for approximately 275 meters (900 feet). It starts in a sagebrush opening, but after a few meters enters the pinyon-juniper woodland. The driveline generally trends uphill and ends in a saddle

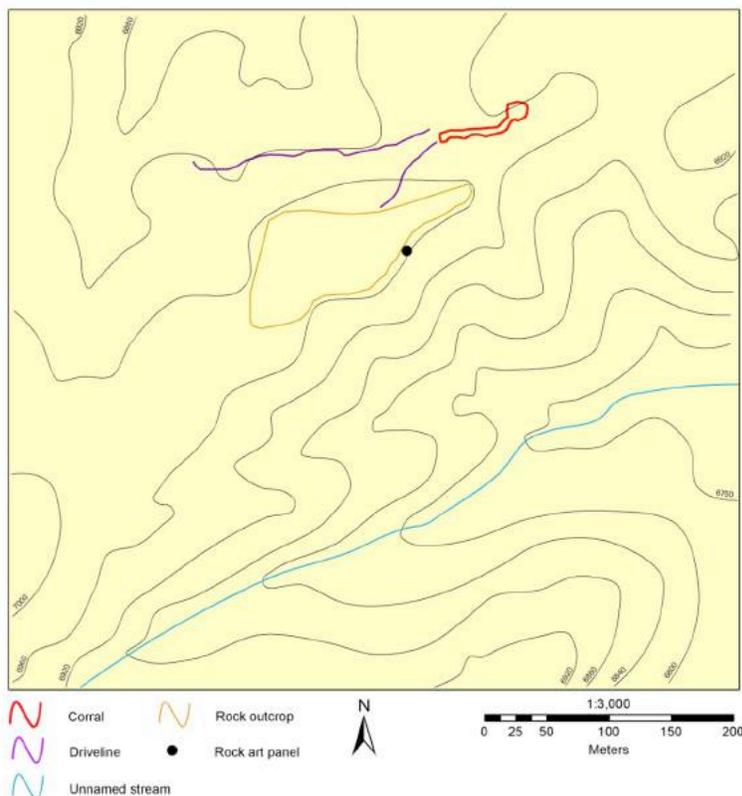


Figure 9. Corral at 42Dc1609.

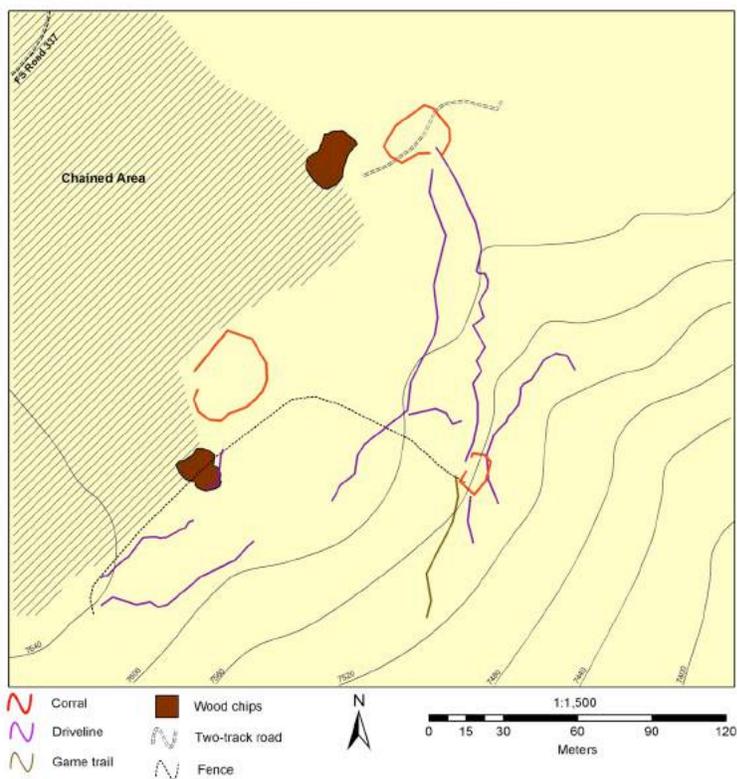


Figure 10. Plan map of 42Dc236 showing multiple drivelines and corrals.

between two knolls. The southern wing wall begins at the base of a short cliff and trends to the northeast for about 135 meters (440 feet). The wing-walls are quite close together for the last 60 meters (200 feet). After the horses were driven into the corral, a portion of the northern wing wall was taken down and moved to close off the narrow portion of the wing walls to contain the horses in the corral. The narrow portion of the driveline is about three meters across. The corral is a circular shaped area, 16 x 15 meters (52 x 49 feet) in size. The corral walls are much higher and more substantial than the drivelines. Some of the walls were still nearly two meters (6.5 feet) in height when the site was recorded.

Other sites have a much more confusing array of drivelines and corrals (Figure 10). The features have been impacted by a modern fence, firewood cutting, and reuse. The myriad of brush walls at these sites begs the question, why would drivelines be reconstructed or moved over and over again when serviceable barriers still existed? Anglo informants told our crew that horses will only follow a driveline into a trap once. The herd's old lead mare would not get caught the same way twice (John Barton, personal communication, 2006). For corrals to be used more than once, the driveline configurations had to be changed with each use. This probably explains why some sites have multiple drivelines. This practice can clearly be seen at the Allen Corral site (Figure 11). The first drivelines at the site were oriented to the east. These lines were tied to the edges of the ridge top. At some later time, sections of the drivelines that connected to the corral were removed and two new drivelines

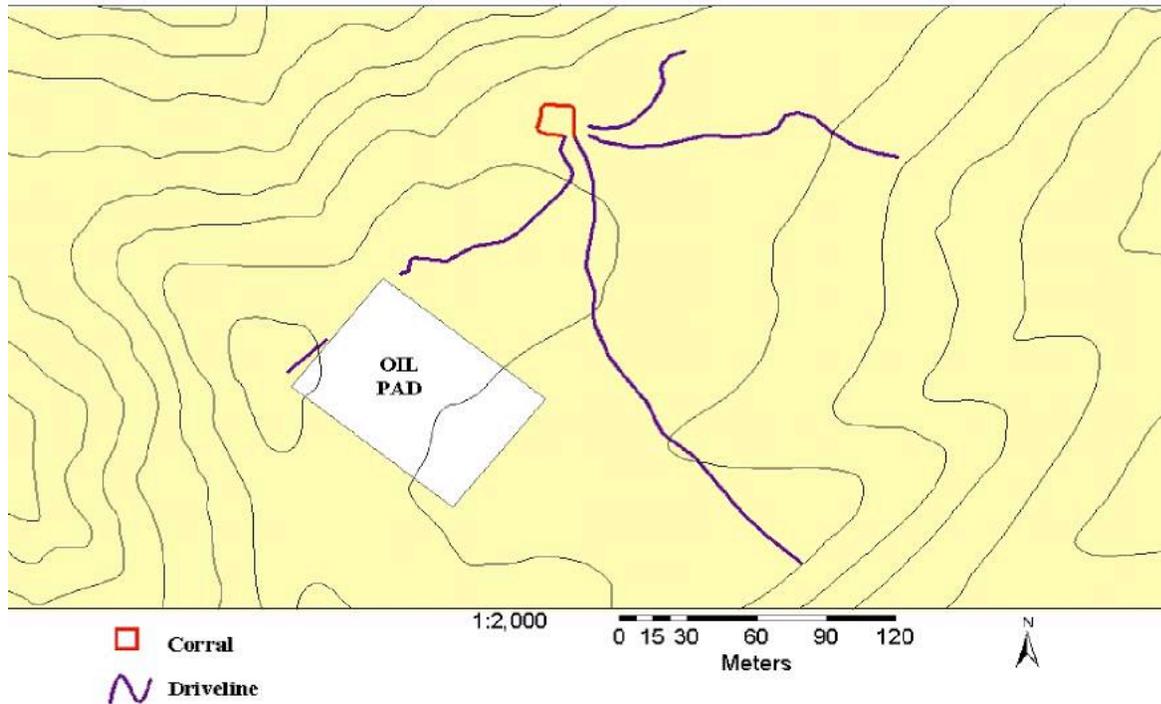


Figure 11. Allen's Corral site showing two sets of drivelines.

were built into the corral leading from the west. These drivelines still lead into the corral. These two later drivelines also tie off to the edges of the ridge top.

When first documented we assumed the corrals were for mustang gathering. Additional research seems to confirm this initial hypothesis. As outlined in the subsequent section, Ute informants have identified these features as horse corrals. Arkush (1995) has studied numerous game and mustang drivelines and corrals in the Great Basin. He (Arkush 1995:13) distinguishes between pronghorn and mustang features. "Without exception, mustang traps are much more substantial than pronghorn traps. The drift fences of mustang traps are usually still standing and are at least four feet tall; the corrals are relatively small (often encompassing less than a quarter acre), and typically are constructed of long, thick wooden beams." On the other hand, pronghorn corrals are very large, 10 to 50 acres in size. Drive-lines often begin sporadically of light material (i.e. stacked sagebrush) and only become more substantial as they draw near the corral.

Ethnic Affiliation of the Corrals

I believe these corrals were built between 1870 and 1905 by the Ute continuing a centuries old tradition of using brush drivelines and corrals for a variety of purposes. There is abundant evidence the Ute built drivelines and corrals in this manner (Jorgensen 1964:11; Smith 1974:55). In the summer of 2005, Ashley Heritage crew members Cristiana Bailey and Gilbert Burkman were taken to a brush driveline complex on tribal land north of Roosevelt. Constructed by a Ute informant's grandfather, this complex is very similar to the one at 42Dc1609 described earlier.

Ute elder, Clifford Duncan, accompanied me to 42Dc236 in 1998. Mr. Duncan said in earlier days, horses were semi-wild and roamed unrestricted. From time to time, the owner would need a new saddle horse or wanted to sell or give a horse away so they would need to gather their livestock together to select the appropriate ones. His father would build a trap in a forested area along a trail used by the horses. The wings would start wide and then narrow until they got to the corral. The opening would be small and designed so the

horses would not see it and not know they had entered a corral as they circled around the enclosure.

The average size corral was about 15 meters (50 feet) in size. Clifford's father would place poles between trees to form the frame of the corral. He would then place willows upright to form the fence. They would be about six to eight feet high. The wings were made of stacked wood, branches, and other things. Mr. Duncan felt the corrals and wings we showed him (42Dc236) were unmistakably a wild horse trap like the one his father described to him.

Corrals at early Anglo homesteads and ranches were constructed very differently from the loose branch construction of the South Unit drivelines. In addition, Anglo informants mention other fence construction methods. Anglo-constructed corrals tend to be more formal and substantial with multiple poles anchored in the ground and connecting poles that are either horizontal or vertical (Figure 12). Preston Nutter and other cattlemen commonly used "wire net" fencing for holding corrals, even transporting the material a considerable distance (over 15 miles) (Barton 1972:31, 33). Barbed wire fences with juniper poles were also common. William Barton (1972:25, 31), a local homesteader and cattleman, only mentions building short "brush fences" to



Figure 12. Corral at Allen homestead patented in 1919, located in Sowers Canyon, 42Dc2276.

keep cattle from leaving switchback trails and to block possible escape routes while cows were being encouraged to leave snowbound pockets. These short brush barriers have commonly been used by Anglos. Clay Johnson (personal communication, 2007) remembers casual conversations in the 1960s with Anglos who had chased wild horses as a largely recreational pursuit. He was told that at times they constructed dead wood and brush corrals or wings as part of their activities. These folks were not "cowboys" in the strict sense that they worked on ranches or rounded up livestock for a living, but horse owners who chased and caught wild horses for fun in a variety of ways. Johnson noted that private pursuit of wild horses ended when it was federally prohibited in the 1960s or early 1970s. In northeastern Utah, where sedimentary deposits have created numerous deep canyons with countless short ledges, short sections of poles and brush closing off gaps in the ledges to block livestock are ubiquitous. Ashley Heritage crews have documented these throughout the Red Canyon area, especially near Swett Ranch and the nearby homesteads. They are also common on the South Unit and in Nine Mile Canyon. These brush and log constructions only augment natural ledges and cliffs and rarely exceed 10 meters (35 feet) in length, unlike the long drivelines described earlier.

There is another type of fence commonly encountered on the South Unit. One Anglo informant said they would tie strips of cloth to a wire that had been strung through the woods. The fluttering cloth would scare the horses away from the wire. This technique is still practiced on fields in the Uinta Basin. Bundles of wire are common at camp sites on the South Unit and validate the informant's comments. We have also noticed lines of wire still in the trees, most notably several yards of wire a couple hundred meters (650 feet) south of 42Dc1609. This wire may correspond to a nearby incised name, "Bill Hadden 2/15/41." The wire on the driveline at 42Dc236 may indicate reuse of the site by later Anglo cattlemen. Wire offers a significant advantage over brush

drivelines. Because drivelines could only be used once before horses became familiar with their direction and purpose, wire allowed the rancher to easily move and rebuild lines. Wire would have been a significant improvement over the labor intensive brush drivelines.

The Importance of the Horse

There was also a significant difference between the Ute and Anglo views of these semi-wild Indian ponies.

Perhaps the most important single possession of the Ute was his horse. The Utes had been for a long time the intermediaries between the Spaniards to the south and many of the Plains Indians to the north and east in the distribution and spread of the horse. As a result they were raided often by their northern and eastern neighbors while the Utes, in turn, raided the Spanish settlements to the south [Lang 1953:8].

A number of cultural practices show the value of the horse in Ute society. "Adultery was punished by beating the wife and, according to an old Uintah informant, the injured husband would shoot the adulterer's best horse. But according to several other informants, if the husband only shot the adulterer's horse and ignored the woman, it was a sign the adulterer could have the woman" (Lang 1953:9). "A deserted wife might ride up to her former husband and stick her spear (the one she carried to balance herself with if her saddle slipped) in her husband's horse. This gives him away. Or she might kill the horse belonging to her successful rival" (Smith 1974:134). One informant told Smith (1974:140) that a new father (after a baby's birth) could not ride his good horses for 10 days after the baby was born. He had to ride ones he was not proud of. It was common to kill horses when individuals died. "A man's horses were killed at the graveside. If they saved one horse, they would cut his tail and mane short and make him look like a mourner" (Smith 1974:150-151). Horse racing was a favorite pastime of the Ute, and ultimately was the principal factor in the

friction at the White River Agency leading to a revolt which resulted in Nathan Meeker and other agency employees' deaths near Meeker, Colorado.

Although important to the Ute, Anglos viewed the Indian ponies as small and worthless. A Vernal Express article in 1929 claimed that some of the horses that the county had paid Earnest Eaton to destroy were the size of sheep (Vernal Express 1929). Barton (1972:34, 51) had a particular disdain for the wild horses and shot a number of them throughout his life. Barton was not the only rancher that killed wild horses. "We decided to make a run for a wild band of horses that ranged around the Avintiquin rim and were a nuisance on the range because they chased the cattle back from the springs; pawed the water and made it muddy so the cattle wouldn't drink it and those fifteen head of horses ate about the same amount of feed as twenty five cattle" (Pope 1972). Beginning in about 1928, regional newspapers tell the story of herds and bands of hundreds of wild horses eliminated by order of the Farm Bureau, Indian Services, Cattlemen's Associations, BLM, and County commissioners because they were a nuisance. Preston Nutter and Indian agents brought in stallions in an attempt to improve the bloodlines of the local horses (Barton 1972:37).

In addition to killing the nuisance animals, Anglo cowboys rounded them up for whatever reason they felt they could produce a profit; meat, money, or rides (John Barton, personal communication, 2006). During the early twentieth century, horse roundups were very common all over the Basin, including on Diamond and Blue Mountains, all along the Green River south, along the Colorado/Wyoming border north, and on the South Unit. A US Indian Service permit was issued in February of 1912 to "trap wild horses." A notice in local newspapers in 1932 advertised the government's need to purchase remounts for the cavalry. It is unknown how many local mustangs were appropriated for the government. In the winter, weak feral horses were usually gathered individually by cowboys with well fed horses.

Anglo horse round-ups used a variety of materials to construct corrals besides the wires and poles mentioned earlier. In central Nevada, Anglo cowboys usually used some combination of poles, wire, sagebrush, natural features, and even a special canvas and pole corral and driveline to gather horses (Russell 2006). The absence of poles, and especially wire, at all of the South Unit brush drivelines except 42Dc236, argues against their construction by Anglos. Anglos were undoubtedly in the area and may have reused some of these features. However, evidence suggests these trap complexes were primarily created by Ute for their horses. Although wild horses still roam the area, (a heritage crew noted a herd in Sowers Canyon in 2006) these corral complexes have not been used for several decades. Indian herds suffered a dramatic decline in numbers at the beginning of the twentieth century, so these drivelines have probably not been used since the 1920s or 1930s.

CONCLUSION

The Ashley National Forest's South Unit is a remote and rugged part of Utah. However, the remains of the human past on this plateau provide an incredible window on the past. The South Unit is located between two of Utah's most intriguing and rich cultural areas and may eventually help us understand the prehistoric land use patterns of these regions. Although physically closer to Nine Mile Canyon, the Fremont era residents of the South Unit appear to be more closely tied to the Uinta Basin. The later Ute occupation was centered on livestock management and plant procurement. The corrals, drivelines, and scarred trees from this period have not been extensively documented in other locations. This makes the region a fascinating laboratory for additional research and discovery.

REFERENCES CITED

- Arkush, Brooke S.
1995 The Archaeology of CA-Mno-2122: A Study of Pre-Contact and Post-Contact Life-ways Among the Mono Basin Paiute. *University of California Anthropological Records No. 31, Berkeley.*
- Barton, William
1972 Autobiography. Manuscript on file, Ashley National Forest, Vernal, Utah.
- DeVed, Lawrence
1998 Yellowstone Canyon CMTs. Manuscript on file Ashley National Forest, Vernal, Utah.
- DeVed, Lawrence, and Byron Loosle
2001 Photo Essay: Culturally Modified Trees. *Utah Archaeology* 14 (1):1-13.
- Estes, Mark and Byron Loosle
2004 *Anthro Mountain: 42Dc1424*. www.fs.fed.us/r4/ashley/heritage/sitereports/anthro-mountain.pdf
- Ferris, Warren A.
1983 *Life in the Rockies*. Old West Publishing Co., Denver, Colorado.
- Jorgensen, Joseph Gilbert
1964 The Ethnohistory and Acculturation of the Northern Ute. Unpublished dissertation, Department of Anthropology, Indiana University, Bloomington.
- Lang, Gottfried O.
1953 A Study in Culture Contact and Culture Change the Whiterock Utes in Transition. *University of Utah Anthropological Papers No. 15, Salt Lake City.*
- Loosle, Byron
2003 So Delicious They Ate the Bark Off the Trees <http://www.fs.fed.us/r4/ashley/heritage/ethnography/so-delicious.pdf>

Loosle, Byron (continued)

2005 42Dc1211. www.fs.fed.us/r4/ashley/heritage/site-reports/42Dc1211.pdf

Martorano, Marilyn A.

1989 So Hungry They Ate the Bark Off a Tree. *Canyon Legacy* 9:9–12.

Pope, Fred

1972 Memoirs of Bill Barton. Manuscript on file, Ashley National Forest, Vernal, Utah.

Russell, Kat

2006 Horse Traps in Central Nevada: Preliminary Inventory and Context Development. Poster presented at Thirtieth Great Basin Anthropological Conference, Las Vegas, Nevada.

Smith, Anne M.

1974 Ethnography of the Northern Utes. *Papers in Anthropology No. 17*, Museum of New Mexico Press, Albuquerque, New Mexico.

Stertz, Derek, and Byron Loosle

2006 42Dc316. www.fs.fed.us/r4/ashley/heritage/site-reports/42Dc316.pdf

Stewart, Omer C.

1942 Culture Element Distributions: XVIII Ute-Southern Paiute. *Anthropological Records Vol. 6*, No. 4, University of California Press, Berkeley.

Vernal Express

1929 Ernest Eaton Employed by County to Round up and Destroy Wild Horse. *Vernal Express*, August 15, 1929.