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A Cultural Study of the Bad Pass Trail in the
Pryor Mountains, Montana and Wyoming

by

Ashley Wischart

B.A. University of Montana, May 2003

Presented in partial fulfillment of the requirements

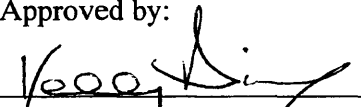
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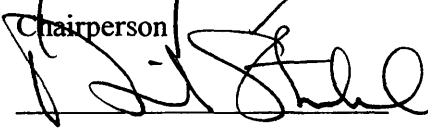
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Anthropology

A Cultural Study of the Bad Pass Trail in the Pryor Mountains, Montana and

Wyoming

Chairperson: Kelly Dixon, Ph.D. 

The concept of trail systems has an extensive history on the human timeline. Many of these trail systems have received only a passing glance and are researched only when present developments threaten their existence. These trail systems, which form part of an intricate cultural landscape, created transportation corridors which carried cultural diffusion, migration, and cultural processes. They were part of the social and economic life of both the prehistoric and historic inhabitants of the land. The Bad Pass Trail in the Bighorn Canyon, Montana and Wyoming is such a trail system.

The purpose of this study was twofold. The first objective sought to re-trace the route of the Bad Pass Trail through the Bighorn Canyon and to document any extant and new cairns along the trail. The second objective intended to answer questions designed to develop a holistic understanding of the Bad Pass Trail. The investigation of the Bad Pass Trail is based on the theoretical foundation of systems theory, more specifically, the concept of transportation corridors. This theory was developed to form an explanation in which an object of study is seen through the interaction and interdependence of its component parts. Historical documentation, maps, secondary sources, pedestrian surveys, and modern technologies were used to reveal this holistic view of the Bad Pass Trail.

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Special thanks to the members of my thesis committee: Dr. Kelly Dixon (chairman), Dr. John Douglas and Dr. Wade Davies. Thank you for your guidance, encouragement and the occasional “nudge” when I needed it.

Special thanks are extended to those who worked beside me at the Bighorn Canyon National Recreation Area: Chris Finley, thank you for your direction over the past year and for your patience with my never ending questions. Thank you for making me “obsessed” with cairn lines. Krystal Hazen, my fellow partner in crime in the Pryors, thank you for your patience and help as you walked countless miles with me recording cairns. Joan Robertson, Brandi Jessup, Steve Grisham, Bill Picket and DeAnza Harrison, thank you for the little jobs you did that helped me in such a big way with this undertaking.

A very special thank you to my parents and sister for their support, encouragement and endless amount of patience during this past year as I pushed to complete this thesis. At long last, here is the result of your efforts in this endeavor.

Finally, thanks to my Heavenly Father; without Him nothing is possible.

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Chapter I

Introduction

Trail systems have an extensive history on the human timeline and many, including the Bad Pass Trail, are still visible as linear features on the landscape. Prehistoric trails created systems that linked people, events, resources, and sites. As such, these trails were places that allowed people to travel across and be interdependent with the land (Kipfer, 2000:547). Despite their potential, most of these trail systems have only received a passing glance from archaeologists, and are mainly researched when construction or development threatens their existence. The Bad Pass Trail is one of these.

The Bad Pass Trail, which received its name from the rough terrain it crosses, has been a prehistoric and historic Indian trail, a trade route for mountain men, a cattle trail, a mail route between Lovell, Wyoming and the Dryhead country of Montana, and an access route through the Bighorn Canyon National Recreation Area (Figure 1.1). It marks the shortest route between the Bighorn Basin in Wyoming through either the Pryor Mountains or the Bighorn Mountains, to the mouth of the Bighorn Canyon in Montana (Figure 1.2). Often mistaken for the Sioux Trail or misnamed the Shoshoni Trail, the Bad Pass Trail is a separate trail system altogether and was used by many cultures, such as the Crow, Shoshoni, Blackfeet, and EuroAmericans, not just a specific group. Migrating bison originally used the Bad Pass. Over time, their route became easy to observe, with its deep ruts and stunted vegetation growth demarcating the path used by generations of bison. Since they took the easiest route through the pass,

the aboriginal people who lived on the Plains, and as hunters of the bison, also followed the clear-cut path for hunting and trade. With the introduction of the horse and the heavier reliance on the travois, portions of the trail needed to be modified to accommodate this form of travel. Steep ravines were avoided and in one section there is a retaining wall, built up as support for the trail as it traversed the side canyons. Along with the retaining wall, hundreds of stone cairns were erected along the route through the Bighorn Canyon.

The earliest known documentary references to the “Bad Pass Trail,” appear in historical documents associated with fur traders and military explorers who used the route through the canyon during the nineteenth century (Dale 1941; Frost 1945; Morgan 1953; Oswald 1976; Rust 1975; Smith 1934; Sullivan 1935; Wheat 1958). General William Ashley, Jedediah Smith, Jim Coulter and James Beckworth were all notable characters who made mention of the trail in their journals. Both Native Americans and Europeans were using the trail extensively during this time period (mid 1800’s). Edward Gillette, an engineer who surveyed the Bighorn Canyon in 1891, was the first to write about the stone cairns through the canyon, noting there were “thousands of piles of rocks which mark its course [sic] this thoroughfare, connecting Big Horn Basin with the valley of Yellowstone River....” (Loendorf and Brownell 1980:83).

There is only one known written reference to the Bad Pass Trail representing a tribal affiliation, and that came from the Crow Indian, Plainfeather, who first used the trail in 1875. Plainfeather recalled, “I know Bad Pass so well that I could guide you without [sic] very little difficulty through the pass at the

Figure 1.1 Overview Map of Bighorn Canyon and Bad Pass Trail.

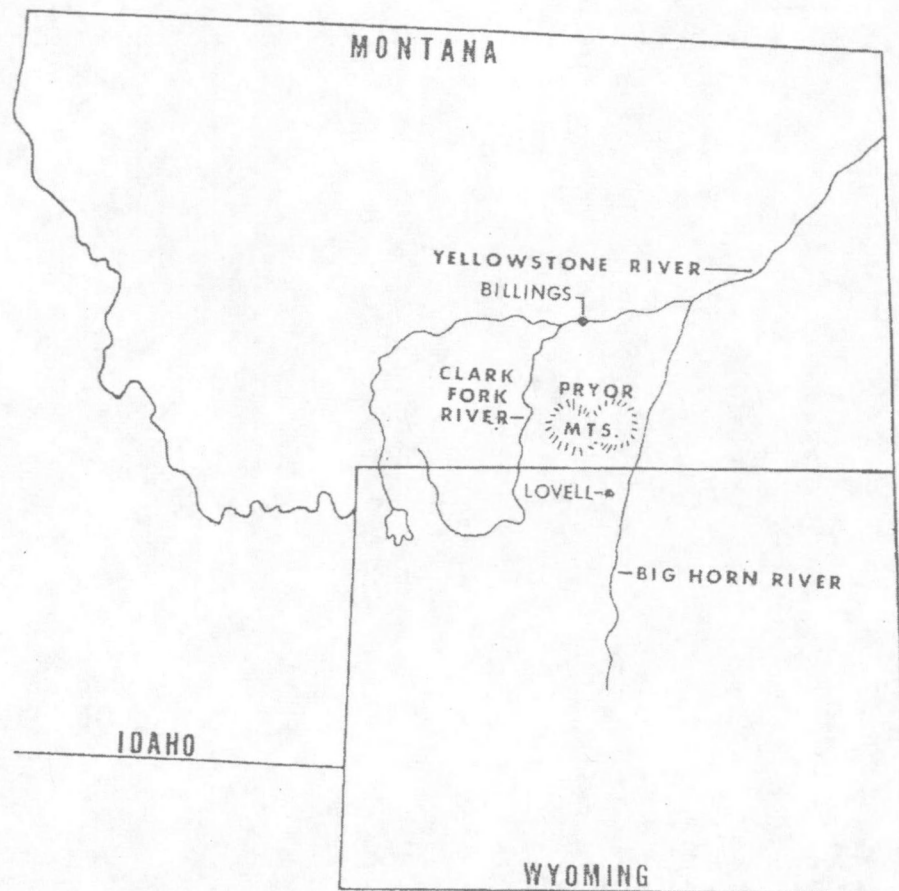


Figure 1.2 General map showing Pryor Mountains in relationship to surrounding states.

present time. Both the whites and the Indians knew the pass as Bad Pass”
(Loendorf and Brownell 1980:84).

Uranium miners and settlers used the trail to guide them through the pass, following the fur traders, mountain men and military explorers, modifying the trail by either adding to or destroying portions of it with their activities. Further destruction of the trail occurred in the 1970’s when a transpark highway was constructed through the Bighorn Canyon National Recreation Area. The highway itself follows the exact path of the trail in several locations, and the cairns that marked original segments were destroyed in the process.

Given the scant historical documentation and destruction of trail segments, it is imperative that the physical remains of the trail are investigated to retrace and connect visible remnants and consider obliterated portions before this linear cultural resource and all of its information is lost. This thesis will provide a detailed description of the trail’s extant segments. It also aims to address a number of research questions that will enhance our understanding of this massive cultural feature. Loendorf’s report on the Bad Pass Trail, along with field work conducted for this report in the Bighorn Canyon, inspired the development of several questions concerning the trail. These questions, which can possibly be answered through historical and archaeological research, are as follows:

- Where does the Bad Pass Trail start and end?
- Is it possible that the Bad Pass Trail connects with the Sioux Trail, providing access to the Bighorn Medicine Wheel?
- Is it possible to locate missing sections of the Bad Pass Trail by

surveying the landscape?

- There is the possibility that sections of the Bad Pass Trail are actually drivelines. Is there archaeological or ethnohistorical evidence to distinguish between the trail system and the drivelines?
- Can we look at the portions of the trail that have been modified and determine whether historical period settlers or miners created those alterations? This could lead to further information about destroyed cairns; for example, archaeological evidence or historical records may shed light on whether settlers reused (secondary use) the rocks in fences or walls, or whether miners moved rock piles in the way of their explorations.
- There are a few areas where the trail splits. One segment continues, as the actual Bad Pass Trail while the other segment runs for quite a distance and then ends in meadows and other unforested areas; however there is no evidence of camping in the latter. What purpose did the split in the trail serve? Were there essential resources at the end of the second trail segment after the split? Why is there no evidence of domestic activities/site in what appear to be prime camping areas?

These questions guide the research to develop a better understanding of the whole trail system, not just where it originates and ends. The Bad Pass Trail, like other trails, was part of a complex system of transportation corridors linking people, ideas, subsistence and travel. Developing such a holistic understanding of this

linear feature is an expected outcome of this thesis. The investigation of those questions will utilize the landscape, oral histories, historical documents, trail segments and a systems theory approach. With the aid of archaeological field research, historical documentation, and several modern methods used in research today (GPS, aerial photography, satellite imagery) a clearer picture of the Bad Pass Trail and its functions will emerge. Ideally this will inspire further research on the Bad Pass Trail specifically and prehistoric/historic trails in western North America more generally.

Chapter II Prehistory and History

In order to understand the Bad Pass Trail, it is necessary to consider the prehistory and history of the trail's use. It is unclear when the region's prehistoric inhabitants first used the Bad Pass as a transportation route. It is clear that portions of the trail area were in use at least by 8,500 BP according to the information found in the cultural chronology of the High Plains region and the associated lithics found at stone circle sites along the base of the Pryor Mountains and the Bad Pass Trail (Carmichael 1976; Dahlberg 1981; Frison 1991; Mathews 1972; Wood 1998). Three scholars have produced a cultural chronology for the region. William Mulloy produced the first chronology, grouping artifacts into three cultural periods (Platt 1992:13). Brian Reeves was the second to produce a chronology, refining Mulloy's chronology (e.g. Frison 1991). George Frison (1991) was the third prominent scholar to produce a Plains region chronology, building on the work of Mulloy and Reeves.

Frison's cultural chronology was based on changes in the lithic technology of the High Plains region. The Paleoindian period (11,500 – 8,000 BP) is marked by Clovis, Goshen, Folsom and Midland, Agate Basin, Hell Gap, Alberta, Cody, Fredrick, Lusk and the Lanceolate Lateral Flakes Point Complex projectile points (Frison 1991:24). The Early Plains Archaic period (8,000 – 5,000 BP) is marked by the early side-notched projectile point and some corner-notched projectile point varieties (Frison 1991:24, 70-86). The Middle Plains Archaic Period (5,000 – 3,000 BP) is marked by the Oxbow, McKean, Duncan, Hannah and Pelican Lake

Complexes (Frison 1991:24, 88-100). The Late Plains Archaic Period (3,000 – 1,500 BP) overlays the Middle Plains Archaic's Pelican Lake Complex and is also marked by the Yonkee and Besant Complexes, and the Late Plains Archaic corner-notched point varieties (Frison 1991:24, 101-110). The Late Prehistoric Period (1,500 – 500 BP) is marked by Late Prehistoric side-notched and corner-notched point variants, Prairie side-notched, and Plains side-notched and many base-notched variant projectile points (Frison 1991:24).

One of the most significant campsites along the Bad Pass Trail is the Pretty Creek Site (24CB4 and 24CB5). Larry Loendorf, who excavated the site, states that “remnants of former travelers are abundant at the site, which contains stratified layers of deposits dating as far back as 8,000 to 9,000 years, artifacts that represent the intervening years, and recent components attributable to the Crow or their contemporaries” (Nabokov 1994:60). This antiquity was verified at other sites along the Bad Pass Trail as part of the current research; three sites were documented during the summer of 2005 containing projectile points dating to the Hell Gap Complex (11,500-8,000 BP).

While archaeological remains verify prehistoric use of the trail, historic writings describe recent activity on the trail. Due to its use as a trade and transportation route for both Native Americans and American Europeans, as a cattle trail, and as a mail route, the Bad Pass Trail's use during the historic period is well documented in several primary and secondary references (Bearss 1970; Bonner 1856; Dale 1941; Nabokov 1994).

The Bighorn Canyon region, which contains the Bad Pass Trail, was the ancestral and historic hunting-gathering grounds for the Crow, yet the Shoshone and Blackfeet people also frequented the area. The first European explorers in the region documented the presence of these tribes. The first European to see the Bighorn Canyon and to write about it was the Frenchman Francois Antoine Larocque, who had connections with the North West and Hudson's Bay Trading Companies. Larocque reached the Bighorn Canyon on August 31, 1805, writing in his journal, "it [Bighorn Canyon] is awful to behold and makes one giddy to look down upon the river" (Bearss 1970:37). Following Larocque, William Clark came upon the Bighorn and its canyon on July 36, 1806 after having split from Captain Lewis and half the exploration party. Clark wrote that the Bighorn flowed through a "rich open country, supplied with a great quantity of timber, and inhabited by beaver" (Bearss 1970:41).

Other early, historical references to the Bad Pass Trail appeared during the fur trading era. These references herald changes in the landscape and prehistoric lifestyles of the American West, changes that would eventually alter the Bad Pass Trail. General William Ashley and Major Andrew Henry, two men who competed with the Missouri Fur Company, explored the Bighorn River and its canyon and utilized the trail on three occasions for the trappers' rendezvous of 1824, 1825, and 1833 and for transporting furs down the Yellowstone, Bighorn and Missouri rivers (Bearss 1970:59-86). Henry was the first of the two to travel up the Bighorn and to cross the Bad Pass in the spring of 1824 (Bearss 1970:65). Ashley, who followed Henry's route, does not mention the trail by name, but it is

obvious by his journal entries of the 1825 rendezvous, that he traveled through the area of the Bad Pass Trail:

On the 2nd day of July, I set out on my way homewards with 50 men, 25 of whom were to accompany me to a navigable point of the Big Horn River thence to return with the horses employed in the transportation of the furs...(Lorendorf and Brownell 1980:78).

On my passage thither, I discovered nothing remarkable in the features of the country. It affords generally a smooth way to travel over. The only very rugged part of the route is in crossing the Big Horn mountain, which is about 30 miles wide. I had the Big Horn river explored from Wind River mountain to my place of embarkation (Dale 1941:156).

Jim Bridger, the famous mountain man, along with his companions “spent a night near Bad Pass, where several of the company went hunting....” and a grizzly attacked one of the men “as his horse approached a stream intersecting the trail...” (Bearss 1970:69).

James P. Beckwourth, a mountaineer, scout, and pioneer who accompanied Ashley, wrote on several occasions in his journal about the Bad Pass Trail:

On our issuing from their camp, many of the Indians bore us company for two days, until we came to a pass in the mountains called Bad Pass, where we encamped....

The next day we went through Bad Pass, carrying our wounded companion on a litter, who, notwithstanding his dreadful wounds, recovered (Bonner 1856:80-81).

On one occasion, Beckwourth and his six warriors had to retrace their steps and travel by night because he “discovered, at about a mile distance, a party of twenty-seven Black Foot warriors, just emerging from the Bad Pass” (Bonner 1856:241). After being detained at a fort because of a considerable number of Blackfeet in the area, Beckwourth “followed my village through the Bad Pass, and overtook it at Black Panther Creek” (Bonner 1856:285).

In 1833 Captain Benjamin L. E. Bonneville and Robert Campbell met up in August and on the 12th “made a four-mile march, and, descending Grapevine Creek, came out on the Bighorn, within sight of the mouth of the canyon...” [and for the third time since 1824] “a pack train heavily loaded with beaver packs had crossed the Bighorns by a rugged and frightful route...called the Bad Pass” (Bearss 1970:78). On another occasion a detachment of men, sent ahead by Bonneville, avoided a confrontation with the Blackfeet by using the Bad Pass Trail:

As the Indians had gone off in the direction which the trappers had intended to travel, the latter changed their route, and pushed forward rapidly through the “Bad Pass”, nor halted until night (Lorendorf and Brownell 1980:81).

In and around 1866, several military forts sprang up in the area to protect the European settlers, pioneers, and miners. It was during this time period that George M. Templeton made several entries in his journal pertaining nineteenth century life along the Bad Pass Trail, indicating continued indigenous use of the trail during the historic era. The primary references to the trail are as follows:

October 24th, 1866

The camp is all astir again about 2 p.m. by the appearance of three Indians on the other bank of the river having come through the "Bad Pass"...

December 18th, 1866

The buffaloes that are continually coming through the Bad Pass, in which the Crows are encamped, are killed close to the lodges. These Crows have the largest lodges of any Indians. They are made of sixteen or eighteen buffalo skins each.

February 14th, 1867

Some little Crow Indians who were up on the mountain hunting say they saw some Indians in the Bad Pass just before dark, but whether they were Crows or not they could not make out. One of Mr. Bridgers men, who is up on the mountain cutting timber saw fresh tracks on the mountain.

April 8th, 1867

All were thrown into a state of excitement by the appearance of 6 Indians withled [sic] horses in the bluffs on the other side of the river. The Crows said they were not Crows and we didn't know what to make of their maneuvers. They proved to be some Crows from Beauvais Fork. Their camp had lost some horses the night before, by the Snakes and they were trailing them it seems the Snakes had driven them right down to the river just opposite the camp of the "Bear Tooth" and had then turned and gone through the Bad Pass (Lorendorf and Brownell 1980:81-82).

After Templeton's diary, regional historical records make no further mention of the Bad Pass Trail until Edward Gillette visited the Bighorn Canyon in February of 1891 for the purpose of "ascertaining its practicability and feasibility for a railroad" (Gillette 1891:1). Gillette's entry provides many physical descriptors of the trail. After exploring the canyon by walking on the ice, Gillette made his return trip over the Bad Pass Trail, which he refers to as the Sioux Trail:

On our way back to camp we followed the old Sioux trail which was easily found as the tepee poles of the Indians had cleared a

space free of sage brush, some thirty or forty feet wide, and as the country was covered a foot or more with snow the trail could be seen like a great white ribbon a mile distant, winding its way through the hills. This old trail runs parallel to the canyon and some four or five miles to the west as a rule, skirting the base of the Pryor mountains. From the size of the trail and the thousands of piles of rock which mark its course this thoroughfare, connecting Big Horn Basin with the valley of Yellowstone river, must have been used for centuries by buffalo and Indians (Gillette 1891:7).

Although there are a number of references to the Bad Pass Trail in the journals of trappers, explorers and military men, there is only one known reference to the trail that has Native American affiliation and that is the 1962 testimony of a Crow Indian by the name of Plainfeather who first used the trail around 1875:

My name is Plainfeather. I reside near the town of Pryor, Montana, in the Big Horn County, Montana. I am ninety-five years of age. I am a member of the Crow tribe of Indians. From the time I was a small child I have been from year to year along the Big Horn River and in the Big Horn Mountains in what is now Big Horn County, Montana, and Big Horn County, Wyoming. When I was eight years of age, I made my first trip through Bad Pass. Bad Pass is a pass from the north side of the Big Horn Mountains across the Big Horn Mountains to the south portion of the Big Horn Mountains. In order to travel the route which has always been commonly known as "Bad Pass", it is necessary to travel along the Pryor Mountains to Dry Head Creek and then south above the headwaters of the small creeks flowing into the Big Horn River and into the State of Wyoming. This was the trail which the Indians used to travel from the lands which is now Big Horn County, Montana, into the Big Horn Basin in Wyoming. Bad Pass was a very rough trail. My first trip through Bad Pass was made with my parents and other Crow Indians when I was eight years of age. Since that time I have traveled through Bad Pass upon many occasions. I recall when I was a young child, we found the remains of battle implements which indicated that the grounds

had been used for the place of battle skirmishes. I remember in particular when we found broken tips of teepees. I was told that Falls Down Old, a member of the Crow Tribe of Indians, was the first Indian who discovered Bad Pass many years before my time, Bad Pass was the only trail to reach the Big Horn Basin from north of the Big Horn Mountains. I know Bad Pass so well that I could guide you without very little difficulty through the pass at the present time. Both the whites and the Indians knew the pass as Bad Pass. Although I camped for many weeks each year along the Big Horn River during my childhood and during the many years of my lifetime, yet I never knew of anyone traveling the water through the Big Horn Canyon until recent years. The Big Horn River from its mouth to the Big Horn Basin was always considered by both the whites and the Indians as a dangerous treacherous stream and not suitable for use of boats for the purpose of traveling upon the stream (Lorendorf and Brownell 1980:83-84).

Plainfeather's testimony indicates the frequent use of the Bad Pass Trail by the Crow people and it also sheds light on the trail's necessity due to the challenges of the Bighorn River for travelers.

In the early 1900's the early settlers and miners used the trail route as a transportation route for wagons and livestock. In the 1940's and 50's, the trail was again used as the mail route from Lovell, Wyoming to the Dry Head County in Montana, near Lockhart Ranch. The trail's historic use resulted in the destruction of several of its associated rock cairns. This was caused by the settlers and miners as they plowed their fields, added larger rocks for higher visibility, or reused the rocks for their own land markers (Figures 2.1 and 2.2). In the more recent past, sections of the trail were entirely destroyed by the development of the Big Horn Canyon's transpark highway. In several areas the highway follows the route of the original trail through the park; this destroyed the prehistoric and historic trail markers in those segments.

After thousands of years of use, activities over the past 200 years have altered many trail segments. The primary challenges associated with this thesis' fieldwork rested in the difficulty of re-tracing obliterated and lost remnants of the trail. The methods employed for researching the trail are outlined in the next chapter.



Figure 2.1 A segment of historically modified cairns along the Bad Pass Trail.



Figure 2.2 Historically modified cairns and historic road cut along the Bad Pass Trail.

Chapter III Methodology

Research conducted on the Bad Pass Trail was divided into two phases. Phase one involved looking at what was known about the trail in the prehistoric and historic time periods using site reports and historical documentation of the area. To determine a basic timeline of the trail's use, site reports from associated campsites and nearby rock shelters were used to gain dates for the earliest possible use of the trail. At the Pretty Creek site (24CB4 and 5), diagnostic evidence indicates the camp dates to the PaleoIndian period (11,500-8,000 BP). Several other campsites and rock shelters range between the Early Archaic (6000-3000 BP) to Historic Period.

Several references to the Bad Pass Trail were found in historical documents, the earliest being found in journals of mountain men, such as Jim Bridger and Jedediah Smith and explorers General William Ashley and Major Andrew Henry during the fur trade era. Since mapping the Bad Pass Trail was one of the objectives of this research, a search for the earliest known maps containing the Bad Pass was conducted. A comparative examination of the historic maps sought to identify changes from the earlier to the later maps. The primary distinction between these two groups of maps was the fact that the earlier ones were made by people walking along the trail, while the more recent documents represented the trail after several segments had been modified or destroyed.

The 1839 Burr Map of the United States (Wheat 1958) shows the earliest known map of the Bad Pass Trail (Figure 3.1). This document, drawn by George Burr in Washington, was supposedly based on a sketch map by Jedediah Smith (Loendorf and Brownell 1980:85). Several recent maps showing the Bad Pass Trail were found among archaeological site reports and local books on the early settlers of the Bighorn Canyon and Big Horn Basin (Bearss 1970; Spindler 1961; Wheat 1958). A general agreement on the route of the Bad Pass Trail can be seen on all the maps, but these documents lack of detail and make several assumptions about the direction of the trail's route (Figures 3.2).

Archaeological approaches, combined with historical documents, may provide a better tool set for identifying Indian trails (Platt 1992). For example, Steve Platt uses at least four lines of evidence to recognize Indian trails: (1) The presence of ruts and cairns; (2) an increase in site densities in close proximity to topographic features along suspected trail segments; (3) a low-density cluster of lithic debris along the suspected trail; and (4) historic documents, which often provide the most conclusive evidence of Indian use of a particular trail (Platt 1992:70). Modern attempts to retrace ancient trails are difficult due to overgrowth and to the inevitable destruction by recent human impact. Platt's four lines of evidence were integrated to identify segments of the Bad Pass Trail. While this included an examination of the presence of ruts, the source of those features could have been travois, wagons, or more modern transportation vehicles. The ruts therefore cannot be unequivocally associated with any one activity, be it prehistoric, historic, or modern. For example, wagons did follow the Bad Pass

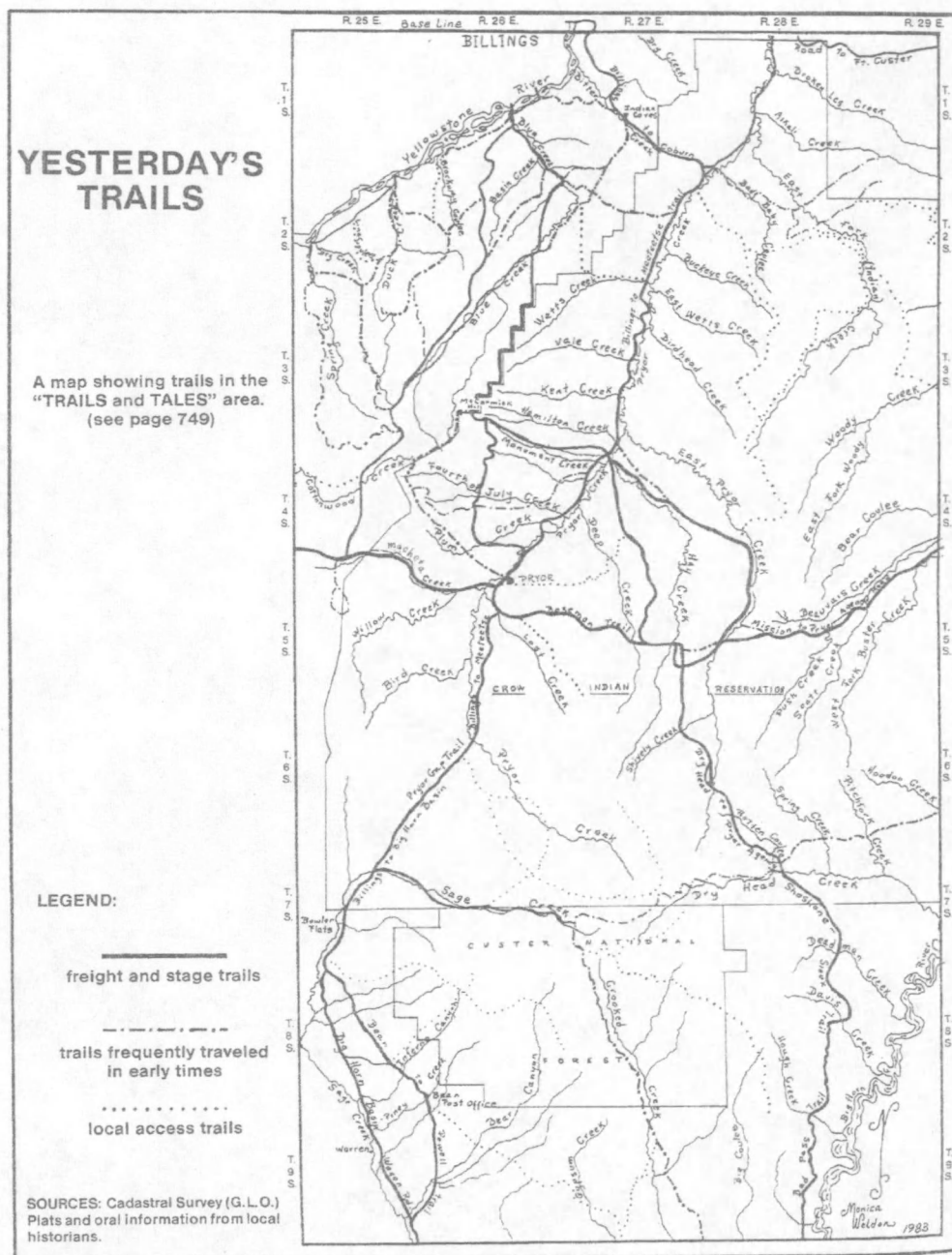


Figure 3.2 One of the maps depicting the Bad Pass Trail. These maps were drawn using oral histories and many assumptions were made about the route of the Bad Pass Trail.

Trail in several areas; however the landscape is also crisscrossed by service and jeep roads, making for layers of ruts and use atop the prehistoric corridor.

Several oral histories from local ranchers and Crow Indians were examined to locate any mention of the Bad Pass Trail. Very few of the oral histories given by local ranchers held any significant information pertaining to the trail. Bessie Tillett carried the mail for several years into the Dryhead Country in 1903. She recalled that she carried the mail on horseback, and in 1903, she noted the presence of a wagon road to Crooked Creek; beyond that point there was only a trail (Bearss 1974:12). Oral histories from the Crow on the Bad Pass Trail are more common. In an interview with Grant Bulltail, conducted by Peter Nabokov, Bulltail mentions piles of stones that lead out from the gap. He recalls the cairns were placed there as a memorial to the Lost Boy, who had powerful medicine. According to Bulltail, Lost Boy instructed the Crow to place rocks in the place he was lost as a monument to him and he would forever protect the Crow. This is why, recalls Bulltail, they “put those rocks there – that’s what I was told” (Nabokov 1993:56).

In an interview with Lillian Hogan, also conducted by Nabokov, Hogan recalls the Bad Pass Trail and a large pile of rocks. She recalled how the elders would, “tell the back generations, always carry these words, when they come this trail, put a big rock there, pile it high. And we do that....make my children put more rocks up there. And they’re still piling up” (Nabokov 1993:26). In an interview with Wilson Lincoln, Nabokov asks if he remembers Bad Pass. Lincoln mentions, “I forgot that. Bad Pass. That’s over on this side of Wyola. Bad Pass.

Right on this side of Wyola, close to Wyoming line.” Lincoln further recalls, “There’s a road goes through that, Wyola to Wyoming line” (Nabokov 1993:21-22). Lincoln mentions the road from Wyola to Wyoming leads to the Dryhead Buffalo Jumps.

Since stone cairns were the most dominant features identifying the Bad Pass Trail on the landscape, research was conducted to distinguish prehistoric, historic, and recently modified cairns. According to Carling Malouf and Thain White, the main difference between the modern cairns (created by sheepherders, surveyors and miners) and ancient stone cairns was the presence or absence of lichen and moss on the rock surfaces. Ancient stone cairns were also more abundant than the modern cairns and they were not as well formed or as large as those made in more recent times (Malouf and White 1963:19-20).

It was also necessary to distinguish between cairns used to mark the trail and those used to form a bison driveline (Figure 3.3). Bison drives were the primary source of subsistence for the late prehistoric, protohistoric and occasionally even the historic Plains Indians. The bison drives were the means by which the pedestrian Indians obtained sufficient food, hides, and other bison products to sustain the population (Kehoe 1965:14). Briefly, a bison jump is a site where Indians enticed and stampeded herds of bison over cliffs or cutbanks in mass slaughter. The archaeological remains of bison drives consist of rock piles converging at the edge of a cliff, and a buried deposit of bison bones containing stone artifacts at the base of the cliff (Conner 1967:5). H.P. Lewis indicates that most of the bison jumps are cliffs facing eastward, but in other research conducted

on bison drives, it can be seen that drives were oriented either to the east or to the north; very seldom did they face west or south (BICA archives, Bighorn Canyon History Folder). Quantitative data was collected on the cairns along the Bad Pass Trail. Measurements of the cairns were taken according to their diameter, height, and the distance between cairns. A comparison was made between cairns along known trail segments and known drivelines.



Figure 3.3 A typical cairn marking the route along the Bad Pass Trail.

Another objective of this research was to identify whether the trail served religious functions, as well as its association with subsistence. This required archival research to locate evidence of a sacred relationship between Indians and

trails or the surrounding landscape the Bad Pass Trail navigates. According to Carling Malouf's papers on stone piles, cairns rarely contain anything but "plain old rocks" (Malouf 1962:1). Dr. Fred Voget provided Malouf with information from the Crow Indians about offerings they made at the line of rocks at Pryor Gap, in western Big Horn County, Montana (Malouf 1962:1-2). Malouf also indicates that offerings of stones were sometimes dropped on cairns to guardian spirits to ensure the success of a journey (Malouf 1962:3).

In Loendorf and Brownell's (1980) research on the Bad Pass, he excavated several stone cairns and one large cairn, "Rock Pile Zero." Several of the cairns held lithic flakes, while Rock Pile Zero held a plethora of artifacts, including several lithic caches, a bison skull, the wing feather of a large bird, and five pieces of non-native material (hematite and muscovite) which was not locally available and probably carried a considerable distance before being deposited into the cairn (Loendorf and Brownell 1980:29-47). While the hematite and muscovite have not been sourced, it is noteworthy that their presence along the trail suggests a link with trade routes and/or other connections.

Other data about sacred beliefs and cairns come from historical records. Lieutenant James Bradley, who traveled with the Montana Column in 1876, observed his Crow scout "spit on a rock and cast it into a pile of rocks." Upon asking his scout the meaning of the action, "he was assured it was commonly done to assure good fortune on their journey" (Nabokov 1994:62).

This information supports the aboriginal use of offerings at certain cairns. Aerial photographs aided investigations of the trail's religious functions with

regard to traditional sacred sites, such as the Big Horn Medicine Wheel. Aerials were used, for example, to determine if there was a relationship between the Bad Pass Trail and the Sioux Trail in Steve Platts' thesis (1992), as the latter connects with the Bighorn Medicine Wheel in the adjacent Bighorn Mountain range. Additionally, the Fort Smith Medicine Wheel is located to the north of the Bighorn Canyon, with the Bozeman Trail passing near it, so a connection between the Bad Pass Trail and the Bozeman Trail was also examined. The Pryor Mountain range is known to have been used by the Crow Indians as an area for vision quests and young boys could have utilized the trail in search of areas to be used in gaining a vision.

This project's second phase applied the information acquired from the literature search to a field survey during the summer of 2005. Preparation for field reconnaissance required an examination of Larry Loendorf and Joan Brownell's (1980) archaeological report describing the Bad Pass Trail, along with an analysis of associated maps and aerial photographs. The field survey covered an area that ranged between 10 and 13 miles. The survey extended 50 feet on either side of extant trail segments to identify associated campsites and lithic debris. The survey aimed at locating and documenting extant portions of the trail (Figure 3.4); finding campsites along the trail; and distinguishing between cairns that were prehistoric, historically modified and those associated with drivelines near the trail. Campsites were identified by stone circles which represent the archaeological remains of tipi rings; stones that were used to hold down the edges of the hides comprising the lodge. Campsites were also used as "sign-posts" to

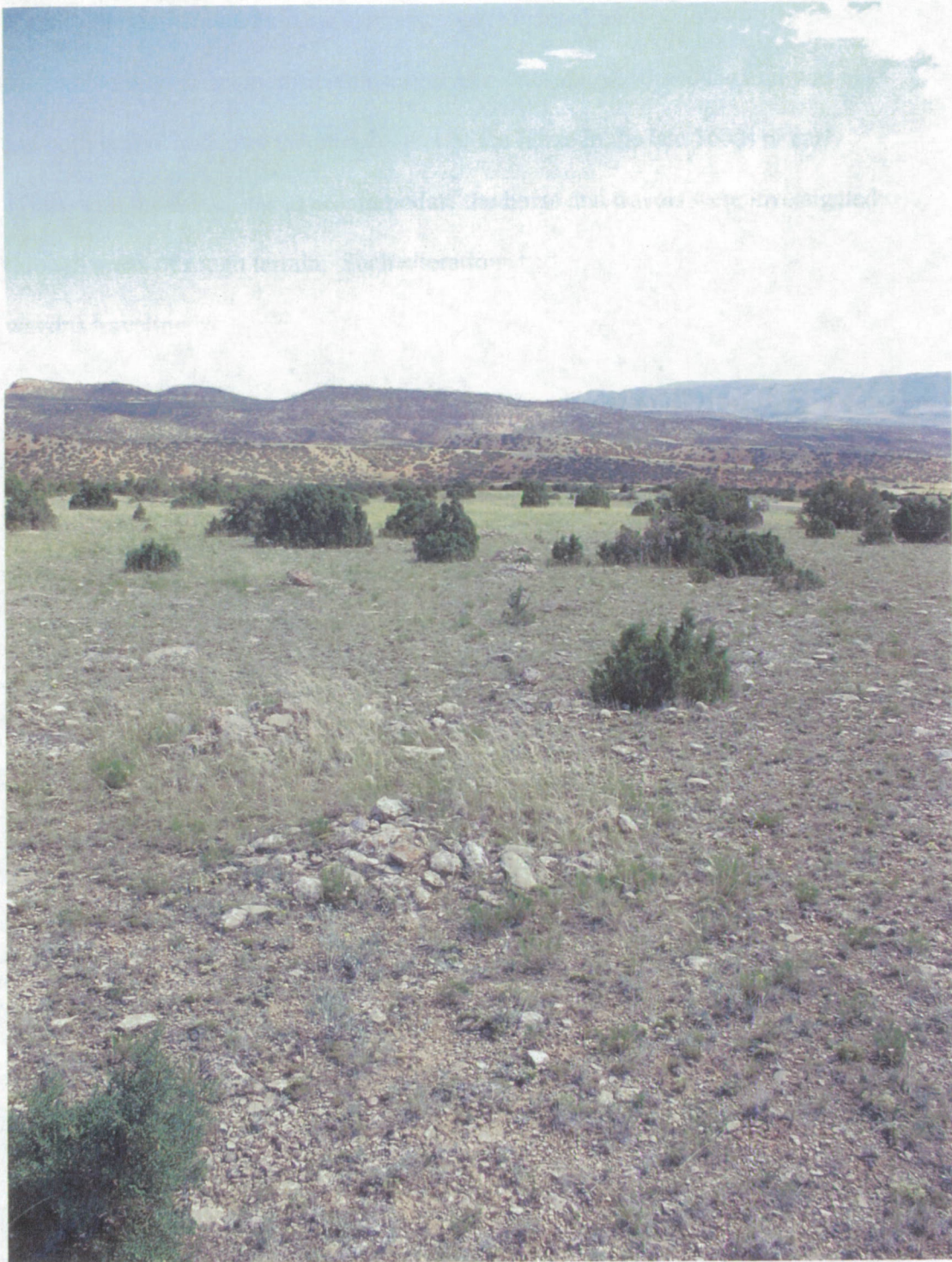


Figure 3.4 A cairn line along the Bad Pass Trail.

identify the trails route because campsites were located within close proximity to the trail's route. Trail modifications were also considered. Since the trail was in use both before and after the introduction of the horse in the late 1600s or early 1700s, trail modifications to accommodate the horse and travois were investigated through areas of rough terrain. Such alterations had to be distinguished from wagons traveling along the trail as well (Figure 3.5).



Figure 3.5 Two trail routes along the Bad Pass Trail. The left side is more accessible for horses while the right side is more accessible for dog and travois.

Campsites were documented by tallying the number of stone circles in each campsite and by recording the UTM coordinates of those sites. The

campsites were documented to show the frequency of camping along the trail and to establish the ground work to interpret the area's cultural landscape. Lithic scatters and diagnostic artifacts were noted in proximity to cairns along the trail. Extant portions of the Bad Pass Trail were documented using a GPS unit. Each cairn located was marked in the GPS unit with UTM coordinates. After all extant trail segments were documented, data was downloaded into a data program, Arch View, then entered into a GIS program. Maps were made, placing each individual cairn on satellite imagery, distinguishing with color the prehistoric cairns, historically modified cairns, drivelines, vision quest cairns, and a fortified wall. The various cairns were also placed on topographic maps using an All Topo program. Along with the cairns, the campsites were also placed on the topographic maps.

Using the newly created GIS maps, areas of missing trail segments were examined to extrapolate the most parsimonious locations for travel routes along the topography. If the assumed areas of travel were not presently being used by the transpark highway, survey was conducted to locate missing cairns that may aid the identification of undocumented trail segments. When new cairns were located, they were documented in the same manner used for previously known cairns. Additional surveys were conducted on surrounding ridges and saddles to locate segments of satellite trails, additional campsites, and other activity areas (e.g., vision quest sites) likely associated with the trail.

Information gained from integrating archival research and field survey makes it possible to retrace this massive linear feature and to identify the various

activities associated with a complex trail system. By blending digital technology with historical and archival resources, it is possible to create a complimentary data set to assist this thesis project's first goal (Appendix A). In addition, the project's basic research methods provide a means to help visualize and to understand the myriad of prehistoric and historic uses of the Bad Pass Trail. The results of this research sheds light on these activities and are discussed in the next chapter.

Chapter IV Results

To divide the Bad Pass Trail into manageable units, the study area was separated into seven sections. The sections were based on known cairn lines, as well as natural drainage and ridge divides. From section one to section seven the trail spans thirteen miles. In certain sections, there are many cairns, campsites, and obvious corridors. In other sections, the trail features are less obvious and often no longer exist at all. Sections one through seven are presented as a whole trail system in Appendix A. The results of the research methods are organized according to these seven sections of the trail.

Section One

Section one of the study area includes the north portion of Bighorn Canyon National Recreation Area: from the historic Lockhart Ranch, extending south 7 miles to the Common Corrals. The topography of the area ranges from divided finger ridges in the north to open flats cut by side canyons and ridges in the south. The area is bordered by the Pryor Mountain range to the west and the Bighorn Canyon to the east. A total of 223 cairns were documented in this section (Figures 4.1, 4.2, and 4.3); initially 219 cairns were documented, however, after further investigation, four additional cairns were discovered within a mile north of the seven cairns originally documented near Barry's Landing (Figure 4.4). The cairns averaged 13 meters in distance from one another in this section of the trail. Each cairns averaged 1.32 meters in diameter and 18 cm in height.



Figure 4.1 Aerial photo showing section one cairn lines on the landscape near “Lockhart Ranch”, “Barry’s Landing”, and “Common Corrals”.



Figure 4.2

Figure 4.2 Close up view of cairn line in section one. This cairn line is located on the west side of Highway 37 and runs through a large open campsite.



Figure 4.3 Close up view of cairn line in section one. This cairn line has an unknown function. The cairns either mark the Bad Pass Trail route or a bison driveline.



Figure 4.4 Aerial view of the four new cairns located north of the cairns documented in section one. These cairns are located between “Barry’s Landing” and “Lockhart Ranch”.

The area directly north of Barry's Landing is disturbed by two road systems, the first being a portion of the historic highway, the second being a modern service road to the power lines and heavy washout. This area contains the seven cairns, noted above, which are alongside the historic road. No lithics were found along the cairn line. Further south from Barry's Landing is a section of 52 cairns that was originally believed to be the Bad Pass Trail (Figure 4.3). These cairns average 6 meters in distance from one another and they are smaller than their counterparts marking the trail, averaging 1.52 meters in diameter and 25 cm in height. The cairn line comes off the north side of a ridge, and leads to a side canyon. One cairn was discovered on the edge of the side canyon, along with faunal remains in the canyon. Consultation with Howard Boggess, a Crow Indian, (Personal Communication 2005) suggests the line was the trail and the lone cairn on the canyon edge was used as a signal to stop and observe the best route around the side canyon. Upon further investigation of the cairns and consultation with park archaeologists, this cairn line is possibly a bison driveline. There is also a service road that parallels this cairn line up the ridge, and erosion has disturbed some cairns. Perhaps the difficulty in interpreting this cairn line is the result of the trail being altered by the service road and nature.

Seven additional cairns were documented on the south side of the same ridge, in an area devoid of lithics and that was disturbed by washout, service roads, and erosion. It is possible for the trail to have turned east, towards the Bighorn Canyon, to follow the base of the ridge. The construction of the

transpark highway has eliminated any additional cairns that could have helped in determining a more positive identification of the function of this particular cairn line. Along this north portion of section one, five open campsites were located, three of which were previously documented. The sites range from a couple stone circles to nineteen stone circles (24CB225).

The identification of 167 cairns were documented in the southern portion of section one (Figure 4.2). This segment of trail runs across flat ground dissected by two secondary canyon drainages. The cairn line that runs along the west side of Highway 37 has 110 cairns, with four groups of clustered cairns. Three of these groups form a square and one forms a triangle shape with a cairn marking each corner. These groups average 5.9 meters in between cairns, with the cairns averaging 1.15 meters in diameter and 16.8 cm in height. The line runs through a large previously undocumented campsite, with 20+ stone circles. From the site, the trail continues off the ridge line and is intersected by a historic irrigation ditch just northeast of the historic Ewing-Snell Ranch. Several small chert and phosphoria lithic flakes were found along this trail segment, all within a meter of the cairns. The trail splits in the middle of the camp and runs northwest along the base of the Pryor Mountains, where 52 cairns mark this line with no noticeable cairn clusters. The line ends with two larger sized cairns on a ridge. No lithics were found along this trail segment.

It is possible the cairn line continued south past the irrigation ditch, through a large field, and connected with the next known trail segment just south of Ewing-Snell Ranch. The physical data needed to make this connection,

however, is lost due to the field being cleared for farming. There are several rock piles on a small hill in the western portion of the field, which may be remnants of cairns removed from the field. Similar evidence of such clearing of rocks is found along the Pryor Gap trail north of the Bad Pass Trail where “the destruction of cairns for clearing agricultural fields” was undertaken (Nabokov 1994:60). No historical documentation indicates whether the Ewing-Snell Ranch activities affected rock cairns in the fields, but their sudden absence in the physical record suggests that this may have been the case.

Section Two

Section two of the study area is bordered by the large field north of Ewing-Snell and runs south to Lower Layout Creek. The topography of the area includes farm land, large ridges and secondary canyon drainages. The area is bordered by the Pryor Mountains to the west and the Bighorn Canyon to the east and 34 cairns were documented there. The first line in this section of the trail has 25 cairns and runs along the east side of the field near the Common Corrals, along the west side of Highway 37 (Figures 4.5 and 4.6). They average 8.6 meters in distance between cairns and average 20.7 cm in height and 1.7 meters in diameter. It was originally thought that this line of 25 cairns was a bison driveline, as it seemed to angle towards the edge of a ridge. Further investigation indicates that several of the cairns had older posts, nails and barbed wire in them. The remaining cairns were in direct line with the cairns that held the posts and wire. These observations evoked a variety of explanations. This cairn line could have been an old fence line associated with historic farming in the area. It is also



Figure 4.5

Figure 4.5 Aerial photograph showing the location of a possible driveline and vision quest cairns on the landscape near the “Ewing-Snell Ranch”.



Figure 4.6

Figure 4.6 Close up view of possible driveline. This cairn line might have also served as fence post supports for the “Ewing-Snell Ranch”.



Figure 4.7 Close up view of the possible vision quest cairns atop a high ridge.

possible for the cairn line to have been part of the Bad Pass Trail that was utilized by the EuroAmericans for their fences. The cairn line might also have served as a driveline. A lack of artifacts and faunal remains in and around the ridgeline does not support the latter explanation, which means either of the first two options may explain the cairns with posts and wire.

The remaining nine cairns in section two are located on the top of a large ridge which leads down to the Bighorn Canyon edge (Figure 4.7). These are not markers that are part of the Bad Pass Trail. Rather, they appear to represent a vision quest location, which offers a direct view of the Bighorn Mountain range and the Bighorn Canyon. There is also a feature made up of several rocks in the shape of an arrow near one of the cairns that points directly towards the Bighorn Medicine Wheel. There is mention of arrows pointing towards the Medicine Wheel in other documents:

In the Bighorn Mountains in Wyoming is the best trail marks there is (sic) made by the Poncas. It is a circle in the shape of a wagon wheel, rocks laid forming the shape. It represents a sun dance circle. All the colors that goes (sic) with the sun dance is (sic) found, the black, red, and white. Black represents weeping, and white is their prayers and the answer. West of this circle is an arrow laid with rocks pointing directly toward it (Platt 1992:27).

Further investigation of the surrounding area found the location of four new cairns on the ridge top directly across Highway 37 and southwest from the first vision quest cairns. Along with these four new cairns was also a small oval of rocks with the north end of the oval built up (Figure 4.8). It is similar in appearance to fasting sites in the area, such as Pretty Eagles. There are many locations of

fasting and vision quest sites in both the Pryor and Bighorn Mountain ranges. The Crows would “return to these isolated overlooks throughout their lives, to fast and wait for the visitations, or re-visitation, of their particular supernatural power-being” (Nabokov 1994:96). Locations on the landscape that bear surface evidence of vision quest sites are “dramatic, often east-facing, promontories and ridges” (Nabokov 1994:98). One Paleo-Indian point was discovered on the ridge with the arrow feature, suggesting the site was in use during prehistoric time or that someone curated an ancient object in more recent prehistory or history (Figure 4.9). The projectile point was dated to the Hell Gap (11,000 – 8,000 BP).



Figure 4.8 Rocks forming a possible vision quest site. This site is directly west from the vision quest site with the arrow feature.



Figure 4.9 A Possible vision quest site with an arrow feature that points directly towards the Bighorn Medicine Wheel in the adjacent Bighorn Mountain Range.

Section Three

Section three of the study area covers the landscape from Lower Layout Creek to the south end of Mustang Flats (Figures 4.10, 4.11, 4.12, and 4.13).

Section three is an open area that gently slopes towards the Bighorn Canyon rim. It is dissected by finger ridges coming off the base of the east side of the Pryor Mountains. The first cairn line in section three of the study is a bison driveline, distinguished by the smaller sized cairns; the shorter distance between those cairns; and the fact that it leads straight to the edge of deep side canyon, which runs north-south through a large campsite (108 stone circles). There are 18 cairns, which average 11.58 meters in distance between cairns. The cairns average 1.33 meters in diameter and 14.58 cm in height. The driveline and campsite is disturbed by a service road.

The second cairn line in section three is located 90.0 meters west of the driveline. It contains 53 cairns, which average 32 meters in distance between each other and average 1.96 meters in diameter and 37.9 cm in height. This section of the Bad Pass Trail is extant along the west end of the ridge, which is the area with the second possible vision quest site, and runs south out onto Mustang Flats where the cairns end. The only known, and previously undocumented site, with two stone circles, is located northwest of the trail's end near the ridge. It is possible the line continued around the ridge and headed towards the field past Ewing-Snell, but heavy washout and new drainages have removed any possible physical trail evidence. The separate cairn located in the southern half of Figure 4.13 could represent a split in the trail, but no other cairns were located south or



Figure 4.10 This cairn line is a bison driveline. The cairns run through a large open campsite and lead to the edge of a side canyon.



Figure 4.11

Figure 4.11 A close up view of the bison driveline traveling to the edge of the side canyon.



Figure 4.12 Aerial photograph showing a segment of the Bad Pass Trail that is located west of the driveline. The cairn line runs out onto Mustang Flats.

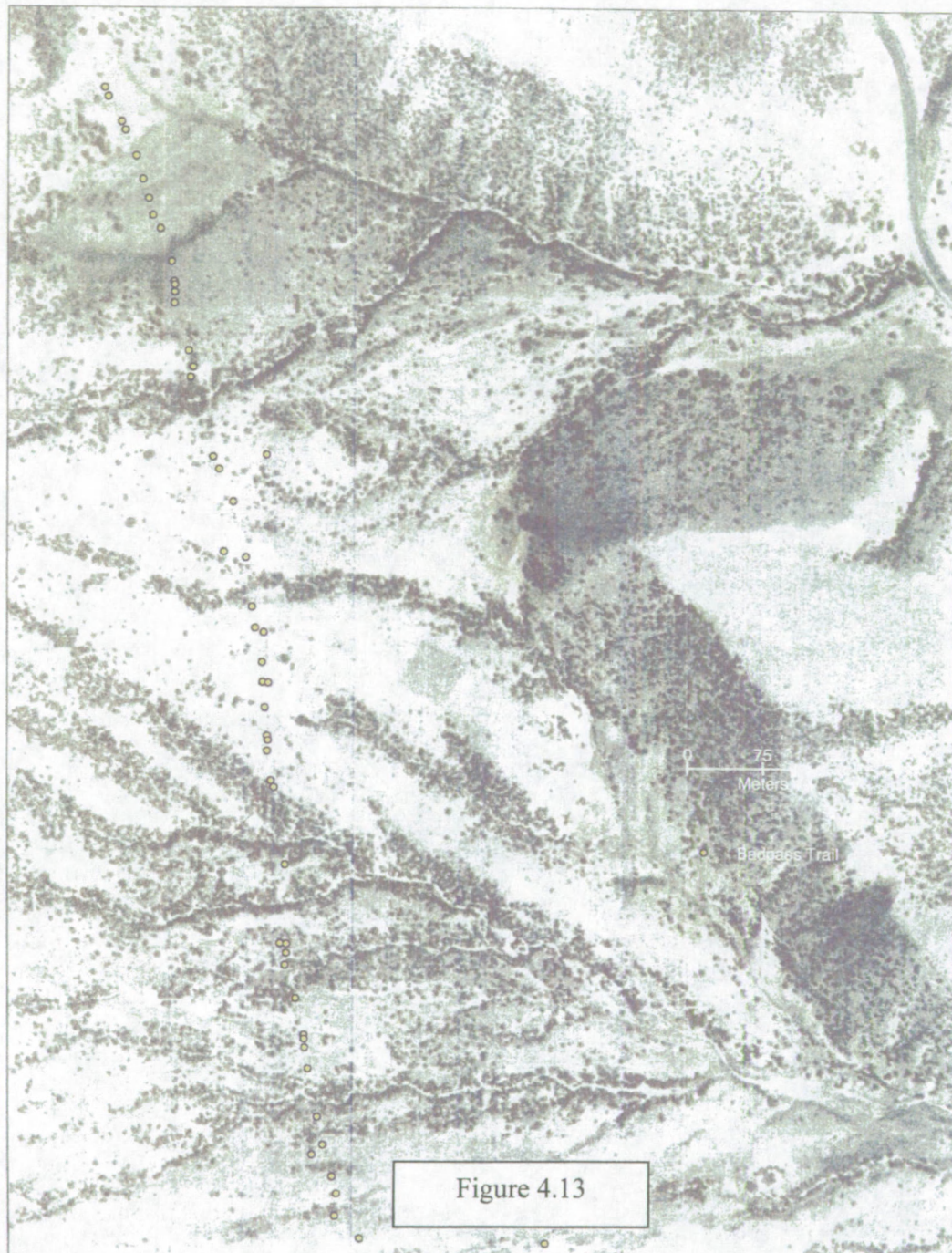


Figure 4.13 A close up view of the Bad Pass Trail segment that is located west of the driveline near “Mustang Flats”.

east of this cairn. Further east, in the direction of the separate cairn, are several smaller campsites (4-6 stone circles).

Section Four

Section four of the study area covers the landscape from the south end of Mustang Flats, past Barr Hill and Booz Canyon, and ends just north of Sullivan's Knob. This is the roughest section of the study area, composed of a series of ridges and deep-sided canyons. Today there are no known cairns in the area, but there are maps and photographs of cairns (Figures 4.14 and 4.15) here that were present before the construction of Highway 37 (Bearss 1970).

On the north side of Booz Canyon is a built up section of the trail (Figure 4.16), representing a retaining wall. The wall is 11 meters in length, 2 meters in width and 3 meters in height and is made with dry laid medium sized rocks (Figure 4.17). The section held up by the retaining wall is wide enough for a travois; however the trail becomes lost as it enters Booz Canyon towards the southwest, with no cairns or trail cuts evident on the landscape in the area. As the trail heads northeast over the retaining wall, the land fill from Highway 37's construction obliterates the trail.

Section Five

Section five of the study area covers the landscape from just north of Sullivan's Knob south to Yellow Hill (Figure 4.18). This section also covers finger ridges and side canyons and contains 111 documented cairns. This is the only segment of landscape where the cairns have been visibly modified as a result of activities during the historic period. A total of 48 of the cairns have been

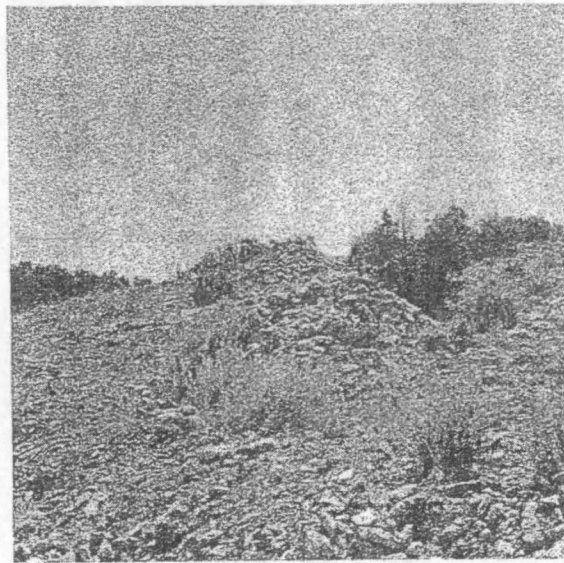
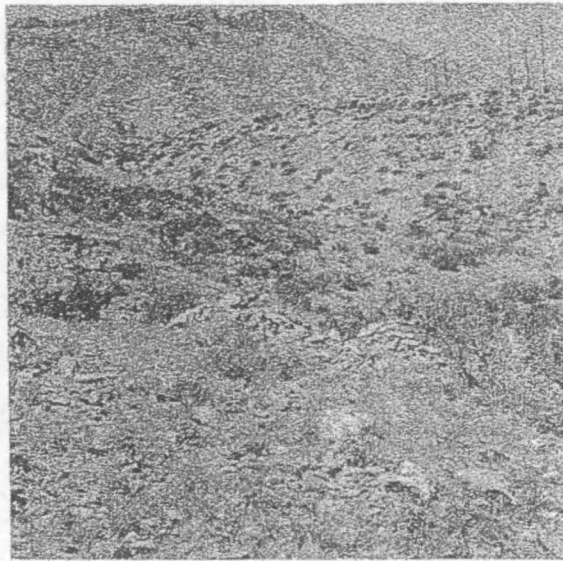


Figure 4.14 Photographs of cairns near “Booz Canyon” that not longer exist because they were destroyed by the construction of Highway 37.

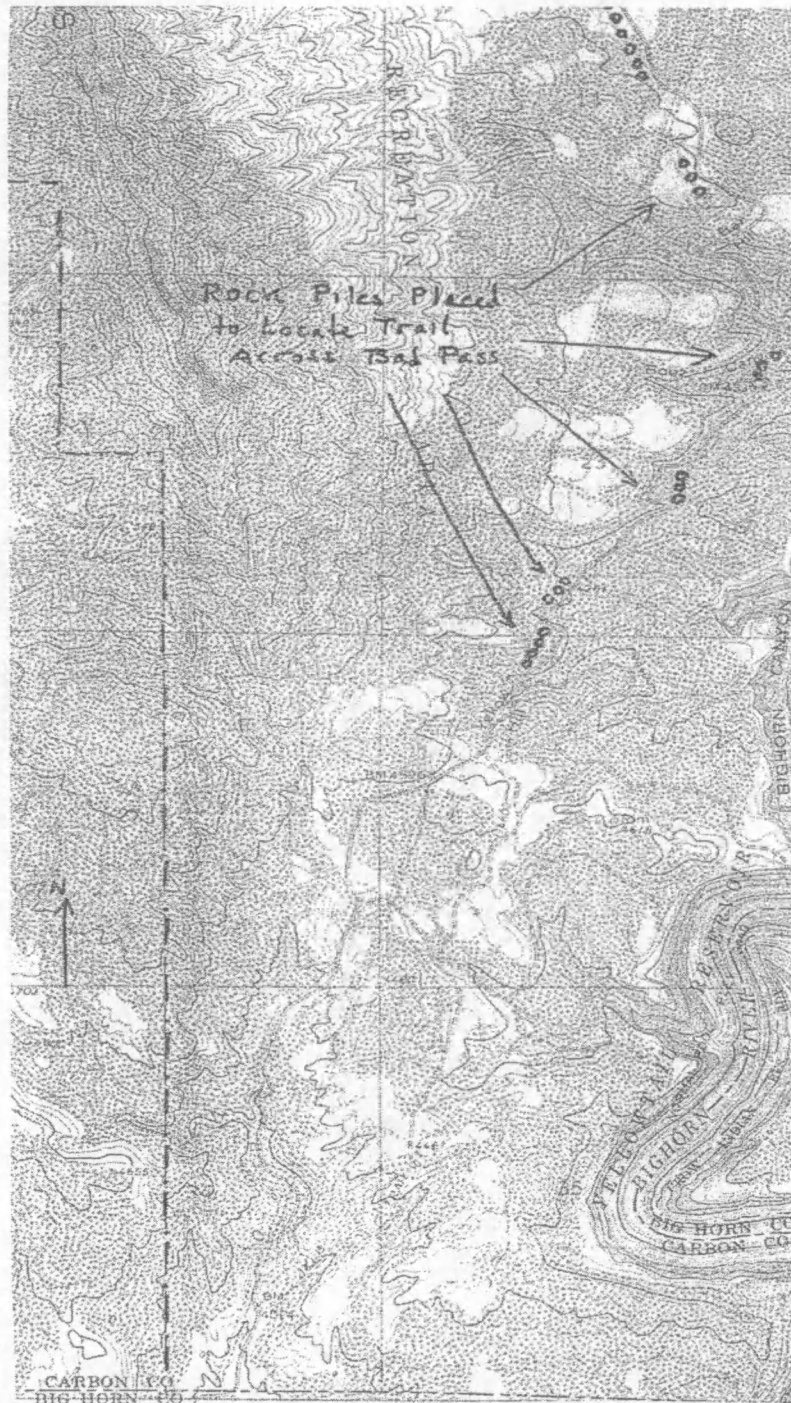


Figure 4.15 Map showing the location of cairns near "Booz Canyon" that have been destroyed by Highway 37.



Figure 4.16 Aerial photograph showing the location of the retaining wall on the landscape.



Figure 4.17 The retaining wall; a built up section of the Bad Pass Trail in “Booz Canyon”.



Figure 4.18

Figure 4.18 Aerial photograph showing the location of both prehistoric and historically modified cairns along the Bad Pass Trail. These cairns run south from "Sullivan's Knob".

modified and have neither lichen coverage or soil deposition. Homesteaders in the area “had used the Bad Pass Trail from the first, but as the years went by they had to make a number of changes, generally to provide easier grades for their teams and later for their trucks, cars, and jeeps” (Bearss 1974:80). In the beginning all travel was on horseback or in wagons, but with the introduction of cars and trucks, “the road was gradually improved. Because of the area’s isolation from the rest of the county, the Carbon County Commissioners annually budgeted \$500 for work on the Dryhead road by local ranchers. Most of the road improvements were undertaken by Philip Snell and Claude St. John” (Bearss 1974:19). The cairns that have been modified are much larger than the prehistoric cairns lining the Bad Pass Trail, averaging 10 meters apart from each other, and averaging 2.84 meters in diameter and 63 cm in height. A wide, two-track road follows alongside the modified cairns.

There are two prehistoric cairns towards the northern portion of section five, but they are off the direct wagon road so there was probably no need to modify the area they are located in. No lithics were found along the trail, but several of the historically modified cairns had broken pieces of aqua glass.

There is a split in the trail south of Sullivan’s Knob. One route continues to travel south and was probably used during the pre-horse era, as the trail is narrow and crosses steep side canyons which were probably more accessible for travel with dogs. This section of trail ends in a side canyon. When water is not flowing in the side canyon its channel can be walked and could be used to rejoin the second trail segment at the base of Yellow Hill. The prehistoric cairns in this

trail segment are spaced 12 meters apart from one another, and they average 1.71 meters in diameter and 39 cm in height.

With the acquisition of the horse, the trail had to be re-routed to accommodate the new mode of transportation. The historic road and modified cairns follow this wide route, which branches westward towards the base of the Pryors. It allowed travelers to avoid the steep side canyons, since it is wider and utilizes a level grade. The change in transportation methods is reflected in the cairns along each of the two cairn lines, with the modified cairns following the wide route while the prehistoric cairns continue towards the side canyon (Figure 4.19). There are four campsites along these two trail segments and one rock shelter. These occupation sites establish that humans were utilizing both the canyon and level grade trail as a transportation route.

A large cairn known as “Rock Pile Zero” was once located at the top of Yellow Hill. Rock Pile Zero measured 22 feet north-south and 17.6 feet east-west and 4 feet in height. The last two cairns in the southern portion of Figure 4.18 were near Rock Pile Zero. Unfortunately, Rock Pile Zero had to be removed to make way for Highway 37. The function of Rock Pile Zero is unknown, but given previous discussion, probably sacred or ceremonial.

Section Six

Section six of the study area covers Yellow Hill (Figure 4.20). The terrain contains gentle slopes with finger ridges to the south of Yellow Hill. It was originally thought that the trail continued straight south from Rock Pile Zero, but no cairns were located along this trajectory. Instead, seven cairns were found



Figure 4.19 A close up view of the prehistoric and historically modified cairns on the Bad Pass Trail.



Figure 4.20 Aerial photograph showing the historically modified cairns located north of “Yellow Hill” and the location of prehistoric cairns marking the Bad Pass Trail route around “Yellow Hill”.



Figure 4.21 Close up view of the cairns marking the Bad Pass Trail route around "Yellow Hill".

going around Yellow Hill, placed about 200 meters around the ridge and paralleled by a modern jeep road (Figure 4.21). There are two campsites located directly off the trail and another two campsites at 65 and 100 meters off the trail. A small lithic scatter is located 12 meters from the two cairns in the southern portion of Figure 4.21. From here, the trail likely continued south, but Highway 37 cuts through the trail route. Even though the trail continues a short distance on the west side of the highway, cut and fill obliterate the trail's path at this point, and no new cairns were located to pick up the trail again in this section of the project area.

Section Seven

Section seven of the study area covers the landscape from just south of Yellow Hill to Crooked Creek (Figure 4.22). The topography of section seven is comprised of long ridges that rise up from the low areas near Crooked Creek and continue to the areas near the edge of the Bighorn Canyon. The first trail segment in section seven consists of 26 cairns that are spaced roughly 30 meters apart from one another and that average 1.45 meters in diameter and 36 cm in height (Figure 4.23); one cairn was disturbed as if someone had dug into it. No lithics were found along this trail segment. The trail splits towards the south end of the route; the upper portion of the split is narrow and the trail cut ends as soon as it rounds the ridge. This route was probably used by just horse and rider, as it was very narrow, even for dogs with a travois. The lower trail segment is wider but has several areas of rocky steppes and was probably used for travel with dogs. Five new cairns were discovered just below the original trail segment. The historic



Figure 4.22 Aerial photography of two Bad Pass Trail routes near “Crooked Creek”.



Figure 4.23 A close up view of the northern branch of the Bad Pass Trail near “Crooked Creek”.

highway seems to have followed the southern portion of the lower trail segment, but as the trail enters the side canyon, the highway turns east to follow a gentler sloping ridge. The trail could have possibly split a third time here, but the historic highway, which travels in another direction, has erased any traces of cairns in that direction. Neither of the two known trail routes seems able to accommodate the travois used with horses. There is a large cairn at the top of the ridge where the two trail routes connect (Figures 4.24 and 4.25). The cairn is 84 cm in height and 2.86 meters in diameter and can be seen for some distance. Just east of this large cairn are two more large cairns on the east



Figure 4.24 The large cairn at the top of the ridge is visible for quite a distance.



Figure 4.25 A close up view of the large cairn located on a ridge top that can be seen for quite a distance.

side of Highway 37. These two cairns are close in size to the first large cairn and are located in a small saddle and can be seen for some distance but are not visible from the first large cairn.

The second cairn line in section seven is situated southeast from the first cairn line along a long finger ridge (Figure 4.26). There are 24 cairns in this line that average 3.94 meters in distance from one another, 1.44 meters in diameter, and 32 cm in height. One of the cairns in this line has been disturbed (Figure 4.27). This section could possibly be the oldest cairn line in the trail system, because of the extensive lichen coverage and the amount of soil deposition. While there are 23 phosphoria flakes along this cairn line, the function of this specific trail system is unknown. It is possible that it is part of the Bad Pass Trail, crossing the small gully to join with the last known trail segment. It is also possible that this cairn line served as part of a bison trap used during the winter months. According to Bearss, the Crow “also killed buffalo by stampeding the herd into deep snow drifts or onto ice” (Bearss 1970:19). The topography near this cairn line is conducive to deep snow drifts during the winter months. The cairns do appear to get larger as they approach the top of the ridge, which, according to park archaeologists, is common to bison traps. The construction of Highway 37 obliterated the ridge top, preventing further analysis.

The last documented trail segment in section seven contained 41 cairns spaced 12.78 meters apart and averaging 1.50 meters in diameter and 35 cm in height. The northern portion of this trail segment follows the east side of a finger



Figure 4.26

Figure 4.26 A close up view of the southern Bad Pass Trail route near “Crooked Creek”.

ridge, along which are four cairns, spaced about 113.75 meters apart from one another and averaging 1.40 meters in diameter by 32 cm in height. The trail is cut into the side of the finger ridge and has been cleared, as there are rocks tossed to the east side of the trail, forming a slight wall at times. Recent erosion has covered and narrowed a section of the trail.



Figure 4.27 A disturbed cairn along the Bad Pass Trail.

As the trail comes out of the side canyon it goes over a saddle in the landscape. Although there are no cairns marking this portion of the trail, it is very recognizable as a wide (3-4 meters) path on the landscape. The trail then follows the gentle slopes in the area. It heads southeast towards Crooked Creek Bay over three finger ridges level out onto a flat plain. Each of the three finger ridges contain medium (4 stone circles) to large (20 stone circles) campsites.

A series of 37 cairns extend along one of the finger ridges to the flat plain (Figure 4.26). Heavy lichen deposits cover the cairns in this line, suggesting its antiquity. The cairns along this ridge average 12.78 meters from one another and average 1.50 meters in diameter and 35 cm in height. The cairns are closer together on the steep sections of the ridge and then spaced farther apart and larger as the topography becomes gentler. There is one section of the trail where the ground becomes somewhat level, with the topography being very steep on the north and south sides. On this section of level ground there is a group of four cairns that form a square. The average distance between the four cairns is 3.87 meters and the cairns average 1.50 meters in diameter and 34 cm in height. No references were found to explain this oddity. No lithics were found in the group of cairns, but one phosphoria flake was located near one of the larger cairns out where the ridge opens onto the plain. Three cairns in this trail segment were disturbed by someone digging into them (Figure 4.27).

Summary

The research presented in this chapter illustrates the Bad Pass Trail as a system, with a line of activities stretching along this feature over vast spans of

time. Several cairn lines have been distinguished as the main trail route while other cairns have been identified as adjacent activity sites, such as bison drivelines and vision quest sites. Campsites were also located along the Bad Pass Trail's route. The location of these drivelines, vision quest sites, and campsites are a direct result of the Bad Pass Trails route through the Bighorn Canyon. Research has also shown the secondary use of the trail by EuroAmerican settlers and miners; their use of the trail is seen in the historically modified cairns and historic road along the Bad Pass Trail. The trail's location in the Bighorn Canyon affected the development of the landscape in which it traverses. The organization of the Bad Pass Trail as a system and transportation corridor is seen in the trail's main route and its subunits.

Chapter V Conclusions

The objectives for this research were twofold. The first objective sought to re-trace the route of the Bad Pass Trail through the Bighorn Canyon and to document any extant and new cairns along the trail using historical documents, maps, oral histories, and pedestrian surveys. The second objective intended to answer questions designed to develop an understanding of the Bad Pass Trail. These questions were outlined in chapter one and will be reviewed shortly.

The initial (1980) report on the Bad Pass Trail, assumed that only 300 rock cairns remained along the trail's route. During the extensive follow-up research associated with this thesis project, the Bad Pass Trail now has 543 cairns documented through the Bighorn Canyon. In addition, five new cairns marking the trail and four new cairns marking a vision quest site could only be noted due to time constraints and technological problems. These new sites will be recorded in the future by National Park Service archaeologists.

The use of historical documents and oral histories was helpful in gaining a better understanding of the trail's use through time; however, they were not useful in determining the trail's route through the canyon. The maps originally examined (Bearss 1970, Spindler 1961, Wheat 1958) were problematic because the location of the trail on the maps was not exact. Rather those maps merely depicted the trail's general location, with assumed points connecting its route. Given this, pedestrian survey proved to be the most useful method of retracing the trail's route. Archaeological site reports and survey were also beneficial for

pinpointing campsites and other sites associated with the trail. The first objective was met, resulting in the maps that accompany this thesis.

Moving to the second objective, it is necessary to revisit and answer questions discussed in Chapter I. The first question presented was, where does the Bad Pass Trail begin and end? The north end of the trail, heading towards Fort Smith, was designated as the trail's "starting point," for the arbitrary purpose of this study (which was limited to Bighorn Canyon National Recreation Area lands). The south end of Bighorn Canyon, towards Lovell, Wyoming, was designated as the trail's end. At the northern portion of the trail, just north of the Lockhart Ranch, about 5.5 miles, the trail runs onto Crow Reservation. Access to this land was not obtained for this study, which means the actual starting point of the Bad Pass Trail is unknown, but likely lies on the Crow Reservation. From looking at the map drawn up by Bearss (1970) and the map drawn up from information gained from the Cadastral Survey (G.L.O) Plats and oral information from local historians (Figures 3.2), the trail appears to head north after it leaves National Park Service land. It appears to cross several creeks (Davis, Deadman, Dryhead, Spring, Grapevine). Along with the Bad Pass Trail, there are two major trail systems that run through the northern territory near Fort Smith; the Bozeman Trail and the Pryor Gap Trail. It is highly likely the Bad Pass Trail connects with both of these trail systems, as these trails are all a part of an intricate "highway" system of prehistoric trails that spread across the region. Determining the exact route of the Bad Pass Trail and identifying its connection with the Bozeman and

Pryor Gap Trails will require a pedestrian survey to identify cairns and other trail features.

It is possible that the cairn line seen in Figure 4.26 represents a split in the trail, which in turn connects with another trail system. Pedestrian surveys were conducted on BLM lands near Demijohn Flats, northwest of the last known Bad Pass Trail cairn. A large campsite (200 stone circles) is located on Demijohn Flats and has a cairn line coming off the east side of the flats. Over 55 cairns were located in this cairn line heading east towards Crooked Creek. It is possible the Bad Pass Trail split connects with this trail system. According to the National Park Service land definitions of the trail, both the northern and southern “ends” of the Bad Pass Trail appear to connect with other major trail systems in the area. Both areas include a confluence of trail systems running across both Wyoming and Montana. The Bad Pass Trail system subsequently appears to be part of a larger network of trails.

The second question presented was whether or not the Bad Pass Trail had any relationship to the Sioux Trail, which in turn heads to the Bighorn Mountain range and the Bighorn Medicine Wheel. When research was begun on this question, two different Sioux Trails were discovered in the area. The first Sioux Trail (48BH204) runs east-west around Horseshoe Bend near Crooked Creek, establishing the presence of aboriginal groups in the area (Figure 5.1). The second Sioux Trail is mentioned in Steve Platt’s thesis (1992). This second Sioux Trail comes off of Medicine Mountain (Figure 5.2) and heads southwest towards the Bighorn Canyon and Horseshoe Bend. Upon closer observation of the maps

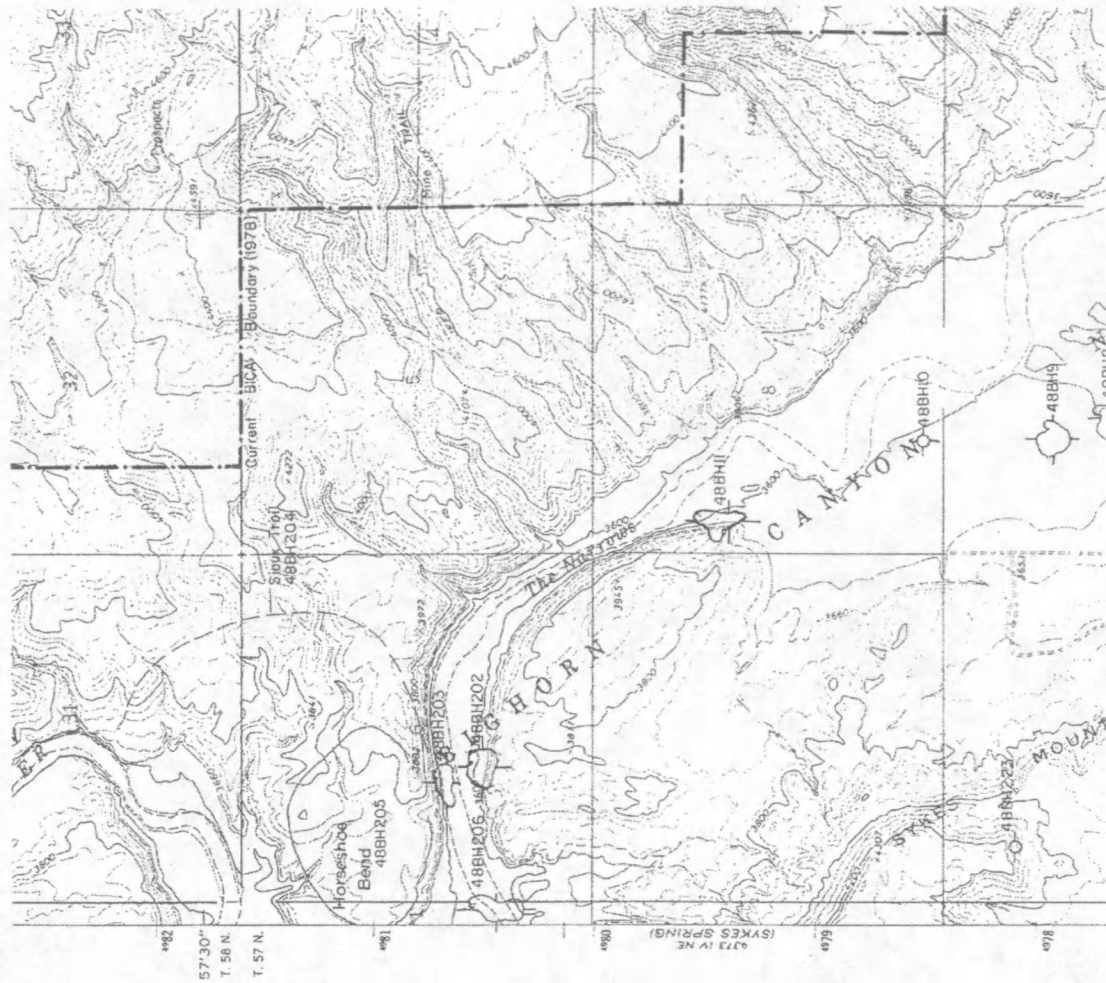


Figure 5.1 Sioux Trail near Horseshoe Bend. There are three open campsites along the river near the trails.
3cm = 1000m



Figure 5.2 Sioux Trail near Medicine Mountain. A jeep trail follows the Sioux Trail and leads to site 48BH11 near Horseshoe Bend.

on the second Sioux Trail system, it appears an old jeep trail follows the same route as the trail. It has already been established that relatively recent road systems followed these ancient trails. The jeep trail can be traced to Horseshoe Bend where it ends at the Bighorn River's edge. The first Sioux Trail system is within close proximity to this jeep trail. Three major sites are located on either side of the Horseshoe Bend Sioux Trail and jeep river crossing (48BH206, 48BH203, and 48BH10). Both Sioux Trails are marked (cairn lines and two-track ruts) similarly to the Bad Pass Trail, although cairns are not found as abundantly as they are along the Bad Pass Trail. The three river crossings present an easier route to the Bighorns than traveling around Sykes Mountain, located south of Horseshoe Bend. The last known cairn in the southern portion of the Bad Pass Trail is found northwest of Crooked Creek Bay and Horseshoe Bend.

The third question was whether or not it was possible to locate missing sections of the Bad Pass Trail. In one instance, this was possible as the topography allowed for an observation of a split in the trail. The trail split was along the cairn line in Figure 4.26, where five new cairns were located. The split represented an easier route for dog and travois transportation (Figure 3.6). It appears that other missing segments of the trail may be impossible to relocate, because the existing highway, which follows the easiest route around several of the ridges in the area, has destroyed much of the trail, since the trail also followed those easy routes. It may still be possible to use this information to retrace the destroyed trail segments, by assuming trail users, in modern and ancient times, would have followed paths of least resistance. A GIS program can help layout

paths of least resistance through the Bighorn Canyon, which could be compared to known segments of the Bad Pass Trail. This could show whether or not the aboriginal peoples of the area followed the path of least resistance in various instances, using known and unknown trail segments. If the GIS program appears to indicate that there is predictive potential, this method of archaeology could be applied to other trail systems, as well as future work with the Bad Pass Trail.

The fourth question asked was whether or not certain cairn lines in the Bighorn Canyon were actually drivelines and not trail markers, and whether or not there was archaeological and ethnohistorical evidence to distinguish between the two. There are two cairn lines in the study area that are drivelines. They follow the typical description of a driveline making a barrier that leads to a small box canyon's edge. Similar drivelines are found farther north in the Grapevine and Dryhead bison jumps. After conducting measurements on known trail markers and known drivelines, the cairns marking each are not much different in diameter, but there is a difference of 10 cm in height, between the taller trail cairns and the driveline cairns.

The most noticeable difference between the two cairn lines is the distance between cairns. The driveline cairns averages 7 meters between cairns, while the trail cairns average 32 meters between cairns. Other than this archaeological observation, no other data could be found during research that described the measurements of cairns in either trail markers or driveline markers.

There are no descriptions of the cairns in either the Dryhead or Grapevine bison jumps in the north of the Bighorn Canyon region. It can be assumed that

cairns marking the trail through the Bighorn Canyon will be larger in height and farther in distance between cairns than bison drivelines in the Bighorn Canyon, which will be smaller in height and shorter in distance between cairns. No ethnographic resources were located that described the differences in cairns to help distinguish between trail and driveline cairns. Future research on the region's trail systems should incorporate descriptions of cairns, like those shown here, so that the distinctions between those used as driveline verses trail markers can be tested against a larger sample size.

The fifth question investigated whether settlers or miners created the alterations in the modified cairns along the trail. The large modified cairns along the trail's route parallel the historic road through the canyon. There are several side roads leading to mining areas but there are no large cairns marking these roads. Cairns found on mining sites are usually small and contain a medium sized (2-3 meters) post to mark claims. Archival research shed light on the large cairns paralleling the historic road, indicating that the government paid local ranchers to maintain the historic road (Bearss 1974). Rocky ground exemplifies the area where the historically modified cairns are located. Road maintenance would have included the clearing of rocks in the road. There is evidence of some instances of secondary use of the Bad Pass cairns, such as a cairn line along the large field near the Ewing-Snell Ranch. Three cairns in the line held posts and barbed wire. The rocks themselves exhibit heavy lichen coverage and soil deposition (soil build up in and around the rocks) suggesting they are older than the historic period; such traits are similar to the prehistoric cairns along the Bad Pass Trail. It

is possible the ranchers reused this cairn line for fence post support around their fields. No historical records or oral testimony can verify whether this method of secondary use was employed at the Ewing-Snell Ranch. Even so, the posts and barbed wire, in association with prehistoric cairns, provide strong archaeological evidence of this.

The sixth series of questions focus on the area where the trail splits. According to Howard Boggess, these trail splits represented routes to certain resource in the area, such as plant resources (Personal Communication, 2005). The Pryor Mountains have several areas where seasonal plant gathering took place. Today's Crow people continue to gather plants in the Pryors, and it is likely that their ancestors did the same. In addition, these trail splits might also represent alternate routes through the Bighorn Canyon. An increasingly intense survey of the area around the cairns representing certain trail splits is necessary to test this explanation; this survey should attempt to locate additional cairns to determine if these possible alternate routes re-connected with the main trail.

Answers to the above questions enhance an understanding of the Bad Pass Trail as a major travel corridor through the Bighorn Canyon region. This trail is part of an ancient system, creating a major transportation network through the Wyoming-Montana regions. Such corridors reflect a system in which "associated cultural features are geographically patterned upon the landscape in very specific ways through their functional link to the transportation artery" (Nowak 1993:3). As a system, the Bad Pass Trail became an artery to convey ideas, material, and people across the landscape over time. It provided a route for communication and

represented a highway to sources of supplies (Malouf 1964:9). As such, it likely played a role in people's social, economic, and religious activities. According to Nowak, the cultural features found with the corridor system "can be recognized as a hierarchy of related subsystems with their own distinct property types and geographic patterning" (Nowak 1993:3). There are four major cultural property types along the Bad Pass Trail: meat procurement sites, plant procurement sites, open campsites and vision quest sites. Each of these sites is directly associated with and interdependent upon the trail, as the trail presents the means in which to access these sites (Kipfer 2000:547). Just as small towns sprang up along the railroad as a direct result of the railroad (e.g. Nowak 1993), so do these four cultural created sites spring up along the trail as a consequence of the trail's route. Any change in the trail would result in changes to each of the trail's property types (e.g. meat procurement sites or campsites).

Advancing technology, such as the new railroad through Wyoming, diminished the importance of the trail as a main transportation route, leading to decreased or alternate uses of the trail and its associated archaeological sites. For example, campsites were not utilized as frequently, and new roads were used to access plant gathering areas. Farming replaced bison hunting, and plants were brought home to be processed (Bearss 1970; Nabakov 1993).

Work on the Bad Pass Trail was conducted in the hopes of furthering knowledge on linear features, inspiring future research to be conducted along the trail and preserving remnant segments of this cultural feature. While this thesis has addressed the first of these, only time will tell if the second and third come to

pass. Recent destruction of these linear features due to modern roads, collectors, and time, has diminished opportunities to enhance our knowledge about these cultural features.

Linear features represent intricate prehistoric and historic highway systems and have the potential to deepen understandings of cultural diffusion, migration and cultural processes. It is clear that people leave their mark on the landscape as a series of archaeological sites. Transportation corridors, such as the Bad Pass Trail, connect these archaeological sites, presenting peoples' lives as a process of movements that clearly depended on intricate travel networks. Modifications in the use of these transportation corridors also reflect cultural changes. Knowing this, ancient trails can be considered as representative of a way of life that changed with the arrival of new transportation systems, like wagon roads, railroads, highways and freeways.

When a cultural resource like the Bad Pass Trail is considered as a major part of North America's indigenous, social, economic, and religious life, it is possible to view peoples' lives as a series of interconnected activities on an intricate cultural landscape. Cultural landscapes include cultural and natural resources associated with an historic event, activity, person or groups of people, reveal humans' relationships with the land over time (Oviattmedia 2005). There are several basic principles found in Groth and Bressi's *Understanding Ordinary Landscapes* (1997) that guide the study of cultural landscapes. Even so, many of the essays in Groth and Bressi's work do not delve seriously into why cultural landscapes are important to people and groups (King 2003:89). Indeed, these

places, albeit intangible too many individuals, should be examined as resources that are significant to people and groups because they encapsulate memories that are culturally meaningful to the people whose histories have existed on those places for thousands of years (Kind 2003:89; see also Basso 1996). This thesis is just a starting point for a greater understanding of the cultural landscape associated with and created by the Bad Pass Trail, as well as other linear features elsewhere. By researching and understanding these linear features, we are not only given a link to the land but also a link to humans' past and present uses of that land.

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