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A CULTURAL HISTORY OF THE
LOLO TRAIL

by

Charles M. McLeod

B.U.S., University of New Mexico, 1972

Presented in partial fulfillment for the degree of

Master of Arts

UNIVERSITY OF MONTANA

1984

Approved by:



Chairman, Board of Examiners



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ABSTRACT

The purpose of this study was twofold. First, to research the prehistoric and historic use of the Lolo Trail using existing archival sources such as early maps and journals relating to the area. Second, to locate, document and evaluate those extant portions of the trail that exist today as well as those prehistoric and historic sites associated with the trail.

The Lolo Trail spans approximately one hundred and fifty miles and traverses the Bitterroot Mountains from western Montana well into west central Idaho. The Lolo Trail is a registered National Historic Landmark and is listed on the National Register of Historic Places. Much of the trail lies on lands administered by the U.S. Forest Service, the Lolo National Forest in Montana and the Clearwater National Forest in Idaho.

Field work was conducted during the 1977 and 1978 field seasons as part of a cultural resource management study focused on the identification of the Lolo Trail and its related sites in Montana. The location of the trail, as well as the use and function of associated sites, was evaluated against the archival information previously researched.

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Special thanks to those who also worked on the Lolo Trail Study in the field or in the office: Jim Beck, Larry Ford, Susan Gianettino, Elaine Howard, Tom Reese, and Ryan Willett.

Thanks to my parents and sisters (Julie and Bonnie) for their support throughout my extended graduate career, as well to the other adventures I have pursued to date. Finally, they can witness some results.

Thanks is also extended to my many friends (some once fellow graduate students), who accepted my responsibility and honored the sign, "THESIS IN PROGRESS, DO NOT DISTURB!"

Thanks very much to Christa Carter, who made the historical maps readable, and to Diane Hadella, who typed the chapters and never complained about "just a few more changes."

Finally, very special thanks to my loving wife, Janene Marie Caywood. She graciously edited chapters, read drafts and made suggestions, some of which I followed. Without her never-ending support, when even in California, this thesis may not have materialized.

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CHAPTER I

INTRODUCTION

The Lolo Trail is a prehistoric and historic travel route that crosses the Bitterroot range of the Rocky Mountains from present-day Lolo, Montana, to Wierpe, Idaho. The trail traverses approximately one hundred and fifty miles of some of the most rugged terrain in the United States. The Lolo Trail was used by the Lewis and Clark expedition in 1805 while enroute to the Pacific Ocean and again during their return journey in 1806. However, the trail was a well-established aboriginal travel route prior to 1805 and was used extensively by several Native American groups, primarily the Flathead (Salish) and Nez Perce (Shawtoot) (Thwaites 1969, Vol. 3:62). The trail continued to be used as a significant travel route throughout the nineteenth century by a variety of peoples including traders, explorers and miners as well as Native Americans. The Lolo Trail is currently a registered National Historic Landmark and is listed on the National Register of Historic Places (Fed. Reg. 1979, Part 2:7521).

In 1977 and 1978 I was employed as a Social Science Technician by the Lolo National Forest in Missoula,

Montana, where I functioned as a member of the Forest's Cultural Resource Management Program. The United States Forest Service is required by law (36 CFR 800 and FSM 2360.1) to consider, and in some cases protect, all properties included or eligible for listing on the National Register of Historic Places. The Lolo Trail posed several unique management problems for the Forest Service. Part of my duties were to locate extant portions of the Lolo Trail as well as sites and historical features associated with the trail. Also, I was responsible for writing a document which would provide long-term direction for management of this cultural resource while allowing other multiple-use activities to take place (i.e., timber harvesting, recreation, etc.) within the trail area.

The importance of prehistoric and historic trails and travel networks has been recognized by previous researchers. For example, Malouf (1962) states, "trails are . . . the visible remains of prehistoric (and historic) activities which have come down to our day. Furthermore trail studies can help the anthropologist in a larger and more theoretical sense as a feature to look at routes of cultural diffusion, migrations and they can shed light on cultural processes" (1962:9). Nevertheless, trails and trail studies have been neglected as topics of archaeological and historical interest and research

(Gummerman 1977:135).

In 1977 no methodological framework existed from which to pattern a research design for the Lolo Trail. Limited work had been attempted by interested students (Hite 1948), amateur local historians and concerned U.S. Forest Service personnel [Mr. Elers Koch (1934), Mr. Ralph Space (1970), and Mr. William Bradt (1974)]. These investigations had focused primarily upon identification of comparatively short trail sections and were usually concerned with a single historical theme such as locating the campsites of Lewis and Clark, or the battle sites of the Nez Perce during the 1877 conflict. Never had previous researchers used a holistic approach in locating, on-the-ground, the entire identifiable route of the Lolo Trail between Lolo, Montana, and Wierpe, Idaho. An intensive historical and ethnological research strategy had to be developed to identify and interpret those prehistoric and historic sites and related features associated with the Lolo Trail in Montana. Development of this research strategy represents a major part of this thesis. Information gathered during implementation of this research strategy was then used to develop a cultural history for the Lolo Trail.

CHAPTER II

ENVIRONMENTAL SETTING

The Lolo Trail begins near the confluence of the Bitterroot River and Lolo Creek, a primary tributary of the Bitterroot River near present-day Lolo, Montana. The Bitterroot Valley is one of several high elevation intermontane valleys located in western Montana. The elevation of the valley ranges from 3,400 feet above sea level (near Missoula, Montana) to over 4,400 feet above sea level (near Sula, Montana).

From Montana, the Lolo Trail quickly ascends the crest of the Bitterroot Range of the Rocky Mountains to Lolo Pass, then traverses a series of high, precipitous ridges into Idaho. Once in Idaho the trail is found along a series of east/west oriented ridges a few miles north of the Lochsa River (a tributary of the Clearwater River of the Columbia River System), until it reaches its terminus on the Wieppe Prairie in west central Idaho (see Figure 1).

Geology

The geologic history of the east side of the Bitterroots in the vicinity of Lolo Pass is complex. The Idaho Batholith, the principal geologic formation of the

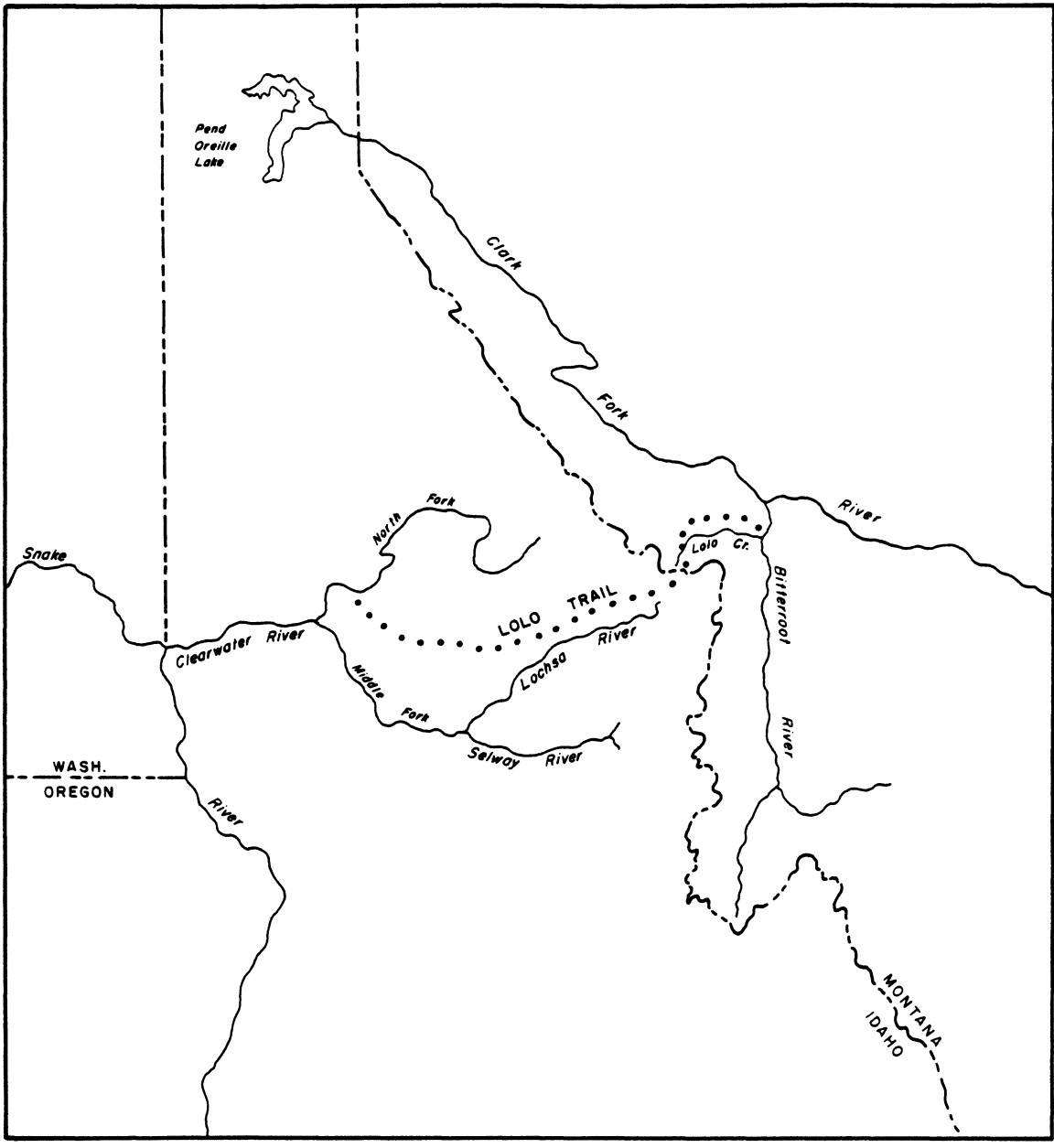


Figure 1. Map showing location of the Lolo Trail in western Montana and north central Idaho.

Creataceous period in this region, created the Bitterroot Range. Vast quantities of granitic quartz monzonite materials were thrust up and into the overlying, warped metamorphosed precambrian sediments. Along the Contact Zone between the quartz monzonite of the Idaho Batholith and the precambrian rock, intensive metamorphic action has occurred. Minor intrusives, usually in the form of dikes, occurred during the Tertiary Period (USDA, Forest Service 1976:9).

West of Lolo Pass in Idaho, the geology along the Lolo Trail is part of the Lochsa uplands. These uplands are part of an "old land surface" which has been lifted and redissected. The majority of rocks can be described as foliated, porphyritic quartz monzonite of the Idaho batholith. The topography is one of extreme relief and the most active geologic process is the down cutting of streams and rivers (Benson, Knudson, Dechert, and Waldbauer 1979:69).

Climate

The climate of the Bitterroot Valley and western Montana can be described as having warm short summers, with temperatures approaching 100°F, and winters that are relatively mild but long when compared to those east of the Continental Divide. January temperatures of minus

20°F are not uncommon. Precipitation averages sixteen (16) inches a year in the valleys and ranges from forty (40) to eighty (80) inches in the mountains. The largest amount of moisture occurs during the winter months in the form of snow.

The climate of western Montana is dominated by warm moist air masses coming from the Pacific Coast. However, substantial differences in temperature and precipitation can occur within relatively restricted geographical areas, primarily due to changes in altitude (Fredlund 1979:10).

Across the Bitterroot Mountains in north central Idaho, similar Pacific Coast weather patterns exist. The exception to this pattern is the crest of the Bitterroot Divide, which often halts moist or warm air masses. Most of the total annual precipitation comes from frequent cyclonic storms travelling in an easterly course. Averages in this area range from about twenty-five (25) inches annually to well over sixty (60) inches at the higher elevations (Benson, Knudson, Dechert, and Waldbauer 1979:66). Aspect or a mountain slope's exposure to the sun, and elevation play a significant role in affecting and modifying the Pacific weather fronts and may actually produce micro climates within the mountains.

Vegetation

The growth rate and type of vegetation in an area affects the location of trails today and probably did in the past. The vegetation of western Montana falls within the Northern Rocky Mountain vegetative type. Generally, the floral and climax species found throughout this zone result from changes in elevation, aspect and rainfall.

Specific vegetative types found in the vicinity of and adjacent to the Lolo Trail along the east slope of the Bitterroot Mountains are Ponderosa pine parkland, Ponderosa pine forests with Lodgepole pine, and Douglas fir forests near the crest of the Bitterroots (i.e., Lolo Pass) (Daubenmire 1943:377). Vegetative cover is generally thickest on the cool north and west facing aspects where dense stands of timber, thick brush and large amounts of deadfall commonly occur.

The forests along the western slope of the Bitterroots reflect a wetter climate. Daubenmire (1943:328) describes these forests as a "hemlock aborvitae." This zone exhibits vegetative characteristics similar to those found in the Cascade Mountains and consists of Western larch, White pine, Douglas fir and Grand fir. The presence of these species indicates the distinct climatic differences between the more moist west side of the Bitterroots and the drier east slope (Fredlund 1979:7).

Fauna

The Bitterroot Mountains of western Montana and north central Idaho sustain a wide variety of big game species. Both species of deer (Mule deer and White tail) as well as elk, Rocky Mountain goat, and moose are found on both sides of the Bitterroot Range. Caribou were also common in western Montana until approximately 1870, when they were replaced by elk. Other mammals common to the area include Black Bear, mountain lion, lynx and coyote as well as a variety of small rodents and fur-bearers.

The population of any given species can fluctuate greatly depending upon a variety of ecological factors at work at any one time. For instance, during the Lewis and Clark Expedition (1805 and 1806), the scarcity of large game animals nearly caused starvation of the party (Devoto 1953:406). This scarcity of game animals was probably due to a reduced amount of suitable habitat (i.e., winter range areas) for large game species due to a uniform distribution of climax forest vegetation.

This condition has gradually changed due to the major forest fires of 1910, 1919, 1929 and 1934. In western Montana and north central Idaho, vast acreages of deadfall and overlying mature timber were burned (Koch 1934:99). However, the areas were quickly revegetated with a variety of grasses, shrubs and brush, creating an ideal browse habitat for many big game species. Consequently, elk and

deer herds have sharply increased since the early 1900s (Diebert, personal comm:1983). More recently, modern logging and slash disposal practices by burning have continued to clear vast acreages of deadfall and overly mature timber, thus sustaining adequate browse for big game species. The positive effects of fire on big game habitat were known by the early Native American inhabitants of the Northern Rocky Mountains. Periodically, fires were started by these groups, specifically for improving big game hunting areas (Malouf 1969:271-290).

Fisheries resources in western Montana and specifically the Bitterroot River and its tributaries include several native species of trout (Cutthroat and Dolly Varden), while suckers, whitefish and squawfish were also present. Grayling were also known to occur in some high elevation lakes in the Big Hole Valley and the Sapphire Range (Munther 1983). Even though the Bitterroot River is a tributary of the Columbia River system, anadromous fish species (salmon and steelhead) are not found in the Bitterroot River. However, these species did exist west of the Bitterroot Range in the Lochsa, Selway and Clearwater River system, tributaries of the Snake River. The anadromous fish provided a predictable food resource, easily obtainable in large quantities at specified times of the year for many Native American groups on the Idaho

CHAPTER III

METHODOLOGY

Research for the Lolo Trail study was divided into two parts. The first phase involved identification of the events that occurred on, along or near the Lolo Trail during the prehistoric and historic periods through the use of historic documents. Archival research should indicate the types of known reported prehistoric and historic sites and features one may expect to find during a field inventory. The second phase of research involved a field survey aimed at locating extant portions of the trail and its associated features along the Montana side of the Bitterroot Divide. The third phase of this project involved my relating the results of field work to the indications and expectations gathered from the archival record. These conclusions may indicate the relative strengths and weaknesses of archival versus field research and how they relate to trail studies in general.

An assumption I made at the beginning of the study was that the Lolo Trail was never "built" and probably was seldom maintained. Rather, the trail represented a travel route that developed through continued use and basically it followed the "path of least resistance" with respect to vegetation and topography. If this is true, then the

trail would change its location slightly over time due to natural phenomenon such as blow downs, rock slides, etc. Such reroutings should be limited, simply because the general route (and destinations) would remain the same.

The Lolo Trail was in existence and probably saw substantial use in the years preceding the Lewis and Clark Expedition in 1805. On September 11, 1805, Clark writes, at the beginning of their westward crossing of the Lolo Trail:

we proceeded on up the creek [travelers rest] (present-day Lolo Creek) on the right [hand] side [left bank] thro a narrow valie and good road for 7 miles and encamped at some old indian lodges (Thwaites 1969, Vol. 3:62).

The fact that Native American groups used the trail prior to 1805 is supported by Clark's statement about the existence and condition of the trail at the beginning of their journey. This argument is strengthened later in the Lewis and Clark Journals by other accounts and descriptions of Native American use and activity along or adjacent to the trail.

Another assumption made early in the study was that the Lolo Trail used in the latter part of the nineteenth century and early twentieth century should closely correspond to the route followed by Lewis and Clark in 1805 and 1806. This assumption is based upon the premise

that there was little incentive to deviate from, or change the general route of the trail. As mentioned above, exceptions would include slight rerouting to avoid natural impediments to travel such as blown down trees, rock slides, etc. However, the basic character of the trail, that of a foot or horse travel route, did not change until technological advances in transportation systems made such a change necessary and beneficial. This assumption was strengthened by my study of maps from the latter part of the nineteenth century (Mullan 1853; de Lacy 1865; etc.) which indicated that the Lolo Trail followed a route similar to the one used by Lewis and Clark.

Our initial step in preparing for field reconnaissance was to compare early historical maps (Thwaites 1805, 1806; Mullan 1853; de Lacy 1865) with modern large-scale topographic maps (contour intervals equal forty feet). Black and white aerial photographs with a 1:250,000 scale were also used when appropriate. The early historic maps (Thwaites 1805; Mullan 1853; de Lacy 1865) appeared to be fairly accurate when one considers the period in which they were made. However, exact locations and features such as campsites are difficult to determine due to lack of an accurate scale and the absence of recognizable topographic features. We superimposed the routes indicated on the historic maps over modern topographic maps as

accurately as possible, following the logical topographic features. These features include ridge top saddles, areas of relatively gentle slope and overall, a route that minimizes elevational changes. This superimposed trail was to be used as a reference line from which to begin the study. Our actual field survey covered a quarter-mile-wide swath along the projected trail route. This survey included other possible routes not shown on the historic map such as major interconnecting ridge systems as well as high probability prehistoric-historic site areas such as natural springs, saddles, and the confluence of streams. The purpose for this was twofold. First, to ensure that we had considered all possible locations for the trail and located all identifiable evidence of the trail. Secondly, it was hoped that this strategy would enable one to locate additional sites associated with the trail as well as evidence of satellite trails radiating from the main Lolo Trail.

This dual purpose survey was beneficial in that it ensured the trail route would be covered more than once. It allowed a constant check and comparison system for locating the original trail. Much of the potential route lay within areas of past logging activity as well as intensive grazing and road construction. The difference between a 1920 horse logging skid trail or a modern

livestock trail, compared to a historic trail, can be difficult to discern at initial discovery. Only by continued comparison and evaluation, reinforced with adequate historical documentation, could the original trail route be securely established.

CHAPTER IV

PREHISTORIC AND HISTORIC OVERVIEW
OF THE LOLO TRAIL

The historical portion of this research deals with the entire route of the Lolo Trail from Lolo, Montana, to the Wieppe Prairie in Idaho. Although the actual on-the-ground field work focused only on the Montana portion of the trail, a holistic perspective of the area and events was essential to locate the route and recognize certain prehistoric or historic site types and their related features.

The Lolo Trail transverses two distinct prehistoric cultural areas. Since an adequate chronology has not yet been fully developed for western Montana, I have chosen to use Mulloy's (1958) chronology for the Northwestern Plains and its modifications by Frison (1978) for discussing the prehistory near the Lolo Trail in Montana. For the discussion of Idaho's prehistory in the Clearwater drainage, I will use the Lower Snake River chronology developed by Leonhardy and Rice (1970).

A. Prehistory of Western Montana

Human occupation for Montana dates to at least 10,000 to 12,000 years before the present in the eastern portion

of the state. The archaeological record clearly indicates this area was occupied, at the end of the last glacial episode, by bands of Paleo-Indian hunters pursuing now-extinct big game species. Projectile points belonging to the Clovis complex have been found at the Wilsall site near Livingston, Montana (Taylor 1969). More recent Paleo-Indian material (Folsom) was found near Helena at the McHaffie site (Forbis and Sperry 1952).

These Late Pleistocene big game hunters pursued now-extinct faunal species such as mastodon and bison, using finely flaked projectile points propelled by the spear thrower or atlatl. Certainly their entire livelihood did not depend on big game hunting, and evidence points to their use of smaller game and vegetal foods as well (Willey 1966:38). These early hunters occupied the Northwestern Plains and eastern foot hills of the Rocky Mountains and probably travelled in small highly mobile bands that could fluctuate in size depending upon the season and resource availability.

Thus far, solid evidence of Paleo-Indian occupation has not been found in western Montana and the Bitterroot Valley (Ward 1973:104). This is probably due to the fact that during this period (the latter part of the Pleistocene), glacial Lake Missoula inundated the Clark Fork and Bitterroot Valleys to an elevation of approximately 4,300

feet above sea level (Pardee 1910:376-386). This glacial lake stretched from near Lake Pend d'Oreille, Idaho, east to Drummond and south to Darby, Montana. The exact date for the final drainage of Lake Missoula is unclear, but it is known to have occurred at the end of the Pleistocene Period about circa 13,000 years B.P. (Mullineaux et al. 1978). It is possible, however, that Paleo-Indian hunters frequented the shoreline and peninsulas of the Glacial Lake Missoula. Limited evidence for a Paleo-Indian occupation does, however, exist in western Montana. An Agate Basin type projectile point was found near the Como Lakes area west of Darby, Montana (Thomas and Turner 1969:3). Another Agate Basin type projectile point has been found near Clearwater Junction (Taylor, personal comm.:1979). Other Agate Basin type projectile points have been found at the Avon site (24PW340), along the Blackfoot River near Ovando, Montana and within the Kootenai River drainage (Melton, personal comm.:1983).

The earliest known prehistoric occupation of the Bitterroot Valley appears to date to the end of the Early Plains Archaic Period, and coincides with evidence recovered from adjacent intermontane valleys of western Montana, such as the Clark Fork, Flathead and Ninemile Valleys and perhaps as far north as the Kootenai River Valley. For instance, oxbow "type" points have been

recovered from sites in the Clark Fork Valley (Ryan 1977:171). Similar type points have been found within the Kootenai River drainage near Libby, Montana (Choquette and Holstein 1980:41). And possible Oxbow material has been recovered from the Flathead Valley within the National Bison Range (Barnier 1971). The Early Plains Archaic is an outgrowth of the Paleo-Indian big game hunting tradition and lasted until approximately 5,500 years before present.

Since the environments of the Bitterroot Valleys and Clark Fork are similar in terms of animal and vegetal resources, it is logical to assume that people from this time period frequented both areas during their seasonal round of resource exploitation. Early Plains Archaic projectile points, like those from the preceding period, were used with the spear thrower or atlatl. Subsistence strategies for this time period in western Montana do not appear to differ greatly from the Middle and Late Plains Archaic Periods. Sites from this period have been found in the valley bottoms as well as at high elevations such as Big Creek Lake (24RA34) (Fredlund 1979:105). The climate during these periods, the Early Plains Archaic (7,000 - 4,000 years B.P.), was warmer but not necessarily drier to that of the present. However, larch, Douglas fir and lodgepole pine were the dominant conifer species,

indicating a slightly warmer environment (Mehring et al. 1979).

The evidence for prehistoric use of the Bitterroot area greatly increases during the Middle Plains Archaic (5,500 - 3,000 years B.P.). Projectile point types such as Duncan and Hanna and those of the McKean complex have been found at several sites in the Bitterroot and Clark Fork Valleys (Fredlund 1979:100; Ryan 1977:171; Ward 1973:115). Also, McKean complex materials are common at high elevation sites in the northern Bitterroot Mountains (Hogan 1974; Fredlund and LaComb 1971). These "high elevation" sites often lie in a subalpine environment over 6,000 feet above sea level. The Middle Plains Archaic Period existed in western Montana during a climatic period very similar to the present day (Fredlund 1979:12). Subsistence strategies from this period reflect an increased reliance on vegetal foods and plant resources (McLean 1981:21). If this subsistence strategy applies to western Montana, it can help to explain the age and function of numerous high altitude sites in western Montana along the Montana-Idaho state line and perhaps even in the Scapegoat Wilderness Area, where similar sites from these periods have been found (McLeod 1980).

Projectile points from the Late Prehistoric Period have been found at sites throughout the Bitterroot and

Clark Fork Valleys as well as at high elevation sites such as Big Creek Lake (24RA 34) (Fredlund 1979:105). Western Montana continued to receive cultural influences from the Columbia Plateau, the Snake River country and the Northwestern Plains during the Late Prehistoric Period (Malouf 1956). This diffusion of material traits indicates that the intermontane valleys of western Montana were not isolated geographic cultural areas. Moreover, archaeological materials recovered from western Montana valleys are stylistically similar to materials from the Columbia Plateau. This would seem to indicate the existence of an east/west avenue for diffusion of cultural traits between western Montana and the Columbia River system (Ryan 1977:177). Griswald in 1970 discussed at least three major travel routes from western Montana through the Coeur d'Alene and Bitterroot Mountains. These were, first, the Pend d'Oreille Trail which followed the Clark Fork River upstream into the Flathead country. The second route crossed the Bitterroot Mountains near the headwaters of the St. Joe River. The third route is the Lolo Trail, which crossed the Bitterroot Mountains from the North Fork of the Clearwater River (Griswald 1970:23).

The Late Prehistoric Period terminated around 1700 AD on the Northern Plains. It was followed by the relatively short Protohistoric Period. The Protohistoric Period is

characterized by the acquisition of European trade goods, such as beads and metal objects, by western Native American groups. Trade was conducted with eastern Native American groups, who acted as "middlemen" for European traders prior to direct contact with the western groups. Gradually, this contact generated pressure from the east by European settlers and traders, and by A.D. 1700 the Flathead, Pend d'Oreille and Kootenai had been pushed from the Plains west over the Continental Divide into western Montana (Malouf 1956:301).

Sometime during the Protohistoric Period (approximately 1730 AD), the Flathead Indians in western Montana acquired the horse from Shoshoni groups to the south in Idaho (Malouf 1952:8). The effects of the horse on traditional Plains culture have been discussed by many anthropologists (Wissler 1914; Haines 1938; Gunther 1950). Once this occurred, its impacts were substantial. People grew prosperous as they became more effective hunters and could exploit a wider area more efficiently (Ryan 1977:175). After acquisition of the horse, those groups living in western Montana found it possible to exploit the Plains bison in a more efficient manner (Ward 1973:20).

The ability for western Montana groups to exploit the Plains bison herds was not solely limited to the technology associated with the horse. The Kootenai Indians

were known to cross the Continental Divide during the winter months using snowshoes. Bison would be hunted by driving them into snowdrifts where they could be more easily dispatched with a lance or bow. The large amount of meat would then be transported by a series of relays on foot, back over the Continental Divide into western Montana (Malouf 1980:3).

During the Late Prehistoric Period, the area around Flathead Lake appears to have been a main cultural center for those Native American groups living in western Montana (Malouf 1956:248). However, during the Protohistoric, as Salishan and Kootenai speaking peoples were pushed from the Plains into western Montana, distinct tribal centers began to develop. The Flathead Indians occupied the Bitterroot Valley and north to present-day Arlee, Montana. The Upper Pend d'Oreille occupied the Flathead Lake region and the Clark Fork Valley west to Lake Pend d'Oreille, Idaho. The Kootenai, on the other hand, lived in the extreme northwestern portion of Montana and southern British Columbia. The original center of Kootenai activity was the Tobacco Plains adjacent to the Kootenai River in northwest Montana (Turney-High 1941).

During the Protohistoric and Early Historic Periods, western Montana groups took on many distinctive Plains cultural and economic traits such as tipis, parfleches

and the sun dance (Teit 1930). Subsistence strategies consisted of the groups following seasonally available resources to exploit a wide variety of animal and vegetal resources such as camas and Bitterroot in western Montana. The Flathead especially are noted for lengthy treks east of the Continental Divide to hunt bison on the Plains. Also, western Montana groups were known to travel south or west from the Bitterroot Valley to exploit the anadromous fishery resources available in the Clearwater, Selway and Salmon Rivers of Idaho (Malouf 1956:34).

The emphasis on warfare increased greatly on the Northern Plains during the Proto and Early Historic Periods. And, raids by Plains groups, especially the Blackfoot, into western Montana were a common occurrence.

Finally, cultural contacts and exchanges dramatically increased during this period. The horse brought increased range and transportation capabilities to native groups. This, combined with an increased emphasis on trade and the effects of pressures from the east, increased contacts between Native American groups. It is during this period that peoples from the Columbia Plateau (Nez Perce) began travelling east to the Montana Plains to harvest bison (Spinden 1908; Marshall 1977).

B. Prehistory of North Central Idaho

The west slope of the Bitterroot Mountains, the Clearwater Mountains, and the Clearwater River Valley appear to have been exploited by humans for the last 8,000 years and possibly longer (Benson, Knudson, Dechert and Waldbauer 1979:2). Archaeological materials from the Windust Phase (11,000 - 9,500 B.P.) have been found at several sites within the Clearwater drainage of north central Idaho. The sites such as Lenore (10NP105), Weitas Creek (10CW30), Hatwai (10NP143), and Wilderness Gateway (10IH799) all show evidence of Windust-type artifacts which are to date the earliest type found in north central Idaho.

The term Windust refers to the earliest known period of human occupation within the cultural chronology of the Lower Snake River region developed by Leonhardy and Rice (1970). Windust appears to be contemporary with the later phases of the Paleo-Indian period on the Northern Plains such as Folsom, Agate Basin and Hell Gap. The greatest abundance of Windust material occurs at the Hatwai site (10NP143) in the lower Clearwater River Valley. Archaeological materials from the Hatwai site have been firmly dated at 10,000 years B.P. (Ames and Green 1979). Projectile point types from the Windust archaeological phase are larger corner-notched dart points

CLIMATIC PERIOD		DATES	CULTURAL SEQUENCES			
ROCKY MOUNTAINS IDAHO	BITTERROOT MOUNTAINS MT/ID		NORTHERN PLAINS	LOWER SNAKE RIVER		
(Swanson, 1972)	(Mehring and others 1977)	B. P.	PERIODS (Mulloy modified by Frison 1978)	PHASES (Leonhardy and Rice 1970)		
		150	Historic	Numipu Phase		
		250	Protohistoric			
Cool and moist, geologic deposition	Climate similar to present	350	Late Prehistoric	Harder Phase		
		450				
		550				
		650				
		750				
		850				
		950				
		1050				
		1150				
		1250				
Alternating moist and arid intervals	Whitebark pine dominant	1350	Late Plains Archaic	Tucannon Phase		
		1450				
		1550				
		1650				
		1750				
		1850				
		1950				
		3000			Early Plains Archaic	Cascade Phase
		4000			Middle Plains Archaic	
		Drought			Warmer, not necessarily drier, than present Larch, Douglas fir and lodgepole dominant	5000
Cool, moist deposition	6000					
Cold, moist geologic deposition	Cool	8000	Paleoindian	Windust		
	Whitebark pine dominant	9000				
Erosion	Sagebrush steppe	10000	Paleoindian	Windust		
	Glacial ice	11000				
Geologic deposition	Glacial ice	12000	Paleoindian	Windust		
		13000				
		14000	Paleoindian	Windust		
		15000				

Figure 2. Cultural chronology and climatic sequences for western Montana and north central Idaho

which were probably used to harvest a variety of large game animals. This phase differs from the Paleo-Indian big game hunters on the Northern Plains in that Windust appears to represent a broad spectrum of foragers. These people appear to have dispersed throughout most topographic zones of the Southern Plateau but may have been present in higher densities within the Clearwater drainage (Ames 1979). The reasons for this assumption are speculative, but possibly the Clearwater area was an ecological refuge for peoples during the Late Pleistocene in contrast to other areas of the Columbia Plateau during this period (Waldbauer, Knudson and Dechert 1981:11).

The Cascade Phase (8,000 - 5,000 years B.P.) follows Windust and begins approximately 8,000 years B.P. The Cascade Phase begins earlier but is otherwise contemporary with the Early Plains Archaic period on the Northern Plains. Cascade type projectile points are usually large leaf shaped, bi-pointed dart points and have been found throughout the Columbia Plateau (Butler 1961). The Cascade Phase in the Southern Plateau appears to be a technological and subsistence continuum from Windust peoples. Several Windust-type sites within the Clearwater drainage also contain a Cascade component such as Lenore (10NP105), Weitas Creek (10CW30) and Wilderness Gateway (10IH799). The period can be characterized as one of an

overall cultural stability in which people exploited a broad spectrum of resources. During this period, however, there may have been a greater emphasis on plant exploitation as was beginning to occur on the Northern Plains in the Early Plains Archaic. Waldbauer, Knudson and Dechert (1981) believe that heavier use may have occurred in the Clearwater and Bitterroot Mountain Ranges during this time period because it coincided with an overall climatic warming period, the altithermal (Waldbauer, Knudson and Dechert 1981:11).

The Tucannon Archaeological Phase immediately follows the Cascade Period in the Southern Plateau. Unfortunately, very little is known about this period. The Tucannon Phase (4,500 - 2,500 years B.P.) corresponds almost exactly in time with the Middle Plains Archaic on the Northern Plains. However, very different adaptations and subsistence strategies were beginning to occur in the Southern Plateau during this period. Basalt appears to have been the predominant raw material used, and the lithic technology was not well-developed. Also, proportional changes in tool types appear to occur during this period (Stapp, Bryon and Rigg 1982:10). The Tucannon Period appears to suggest aggregations of peoples into pit house villages accompanied by increased exploitation of root crops such as camas. Tucannon material has been

found at Hatwai (10NP143), Weitas Creek (10CW30), and Wilderness Gateway (10IH799), all of which lie within the Clearwater River drainage (Waldbauer, Knudson and Dechert 1981:11).

The Tucannon Period terminated approximately 2,500 years ago and was followed by the Harder Archaeological Phase. The Harder period dates from 2,500 years ago until approximately 1720 AD, when the horse was introduced into the Southern Plateau. The Harder Phase coincides with the Late Plains Archaic and Late Prehistoric Period on the Northern Plains. The climate during this period was very similar to that of the present (Mehringer, Arno and Peterson 1977:366). The Harder Phase appears to have been widespread throughout the Clearwater, the north fork of the Clearwater River and the north fork of the Clearwater River to the Kelly Creek drainage. During this period, there appears to have been an expansion in the distribution of pit house villages and a continued heavy use of root crops contingent upon increased exploitation of bison on the Southern Plateau. However, after about 1,000 years ago, utilization of the fishery resource began to intensify (Waldbauer, Knudson and Dechert 1981:11).

Lithic material from Harder Phase sites is dominated in the Clearwater drainage by a wide range of crypto crystalline silicates rather than basalts as in the

Tucannon Period. Distinctive small projectile points, particularly the "Snake River corner-notched" type, characterize this period (Stapp, Bryon and Rigg 1982:10).

The final archaeological phase for the Lower Snake River is the Numipu, which corresponds with acquisition of the horse by Native American groups. The Numipu Phase begins in the early 1700s (Leonhardy and Rice 1970:20) and is coincident with Protohistoric and Early Historic on the Northern Plains. The Nez Perce Indians of the Sahaptian linguistic group were the primary residents of the Southern Plateau along the Clearwater and Snake Rivers during this period. The only archaeological evidence from the Numipu Phase comes from the excavation of isolated burials (Stapp, Bryon and Rigg 1982:11). The majority of information about this time period is taken from the ethnohistoric record such as the Lewis and Clark Journals. The ethno-graphic record and the works of Spinden (1908), Josephy (1965) and Marshall (1977) also present a more accurate picture of Nez Perce subsistence strategies and life styles during this period.

The Nez Perce appear to have congregated into fairly large villages along the Clearwater River and its tributaries during the winter months. The Kamiah area was a major village site in 1805 and 1806, when the Lewis and Clark Expedition passed through north central Idaho

(Thwaites 1969, Vol. 3). In the summer, these villages would disperse into smaller groups to exploit intensively root crops such as camas on the Wieppe Prairie. The anadromous fishery resource (salmon and steelhead) were also of primary economic importance during this period. Lewis and Clark mention acquiring both camas and dried salmon from the Nez Perce on their westward journey in 1805 (Devoto 1953:240). Also, several important Nez Perce fishing sites have been located along the Clearwater River by people in the University of Idaho Department of Anthropology (Stapp, Bryon and Rigg 1982:32). Although the hunting of local fauna continued to be conducted, it was considered a secondary resource procurement activity.

After acquisition of the horse at the beginning of the Numipu period, the Nez Perce travelled extensively and became well-known traders of horses and other commodities. Often times they would travel south to the vicinity of present-day Wiesser, Idaho, and trade with the Shoshone. Or, on other occasions, the Nez Perce would travel east over the Bitterroot Range onto the Plains of eastern Montana to hunt bison (Waldbauer, Knudson and Dechert 1981:12). The routes to the buffalo country in Montana would include the Southern Nez Perce Trail in the south and the Lolo Trail in the north. The fact that the Nez Perce travelled extensively on hunting or trading expedi-

tions during the Numipu Phase placed them in a unique position among other Plateau types. The Nez Perce soon filled the role of "middlemen" in the diffusion of trade items and cultural traits between the Plains groups to the east, Great Basin groups to the south, and other Plateau groups to the west (Gunther 1950:174-179).

This is not to suggest that peoples from earlier cultural periods in western Montana or west central Idaho did not range beyond their arbitrarily defined culture area. Projectile point types representing the earliest cultural periods of the Columbia Plateau have been found in western Montana and even east of the Continental Divide. For instance, windust-like projectile points have been found along the Kootenai River in northwestern Montana (Choquette 1982). Also, Windust-like projectile points have been found east of the Continental Divide near Dillon, Montana (Taylor, personal comm.:1983). Cascade-type projectile points have also been found in western Montana's Kootenai River area, near Plains, Montana, as well as east of the Continental Divide near Canyon Ferry Reservoir (Choquette 1982; Lolo National Forest site records 1976:84; Greiser 1983).

Corner-notched projectile points distinctive of the Late Plains Archaic and Late Prehistoric Period in Montana and the Harder Phase in Idaho appear in the archaeological

record at Big Creek Lake on the east side of the Bitterroot Mountains in Montana (Fredlund 1979) and on the west side at Wilderness Gateway along the Lochsa River (Benson, Knudson, Dechert and Waldbauer 1979). These corner-notched projectile point forms are common on either side of the Bitterroot Mountains and they date from approximately the same time periods. Because of this, it is impossible to determine whether the cultural affiliations are from the Northern Plains or the Eastern Plateau. Tom Roll, who worked in northwestern Montana along the Kootenai River, made similar observations based upon 52 examples of Type-4 projectile points from the LAURD project in 1979 (Roll and Smith 1982:9.9). Although little difference exists in the projectile point styles from these periods (Harder and the Late Prehistoric) one type of occupation site differs markedly between Idaho and Montana. During the Harder Phase in western central Idaho, people aggregated into pit house village sites located along the major rivers and intensified the exploitation of anadromous fish and root resources (Ames and Marshall 1980). Pit house village sites, on the other hand, do not occur in western Montana nor does an anadromous fishery resource.

However, evidence does exist to suggest that peoples from either side of the Bitterroot Range transcended those mountains during the later periods. Specifically focused

to the vicinity of the Lolo Trail, a unique lithic raw material type called vitrophyre occurs at sites in both Idaho and Montana. Vitrophyre is a vitrified ash with excellent flaking properties and resembles a green obsidian. This material has been recovered from sites at Wilderness Gateway (10IH747, 798 and 879) (Benson, Knudson, Dechert and Waldbauer 1979:31). In Montana, this material has also been found at the Big Creek Lake site (24RA34) as well as at other high altitude sites (24MN11, 24MN21) a few miles north (Fredlund 1979). Waste flakes of vitrophyre have been found along the Lolo Trail at Graves Creek (24M0105) and in recent test excavations at Howard Creek (24M0120) (Lolo National Forest site records 1976:1984).

C. The Historic Period Associated with the Lolo Trail

The Historic period is the final chapter in the continuum of cultural chronologies discussed for the Northern Plains and north central Idaho. It begins with initial contact by Native American groups with Euro-Americans as documented by written records. In western Montana and north central Idaho, the Historic period begins in 1805 with the entry of the Lewis and Clark Expedition into the area. The purpose of this expedition was to explore and substantiate claim to portions

of the Louisiana Purchase which in 1803 had recently been acquired from France. President Jefferson's instructions to the expedition were detailed and very specific. First, they were to explore the Missouri River to its headwaters and then to locate a practical water route to the Pacific Ocean (Devoto 1953:5). Secondly, their orders required Lewis and Clark to "fix" geographical positions by astronomical observations to facilitate accurate map making. Finally, they were to make detailed notes and observations on the flora and fauna, soils and mineral potential as well as the life styles and patterns of dress of the native inhabitants (Goetzman 1967:5).

The detail and accuracy of the Lewis and Clark Journals and associated maps provide a wealth of information about the Lolo Trail as well as accurate descriptions of the native inhabitants at initial contact (Josephy 1965:5). These journals also discuss the terrain, climatic conditions and types of flora and fauna encountered by the expedition. The accuracy of the distances travelled each day by the expedition and their description of campsites and topographic features are sometimes described in enough detail to be relocated today (Space 1970:5). Much of the information about the route, condition and associated features for the Lolo Trail is described within the Lewis and Clark Journals. Their

observations and descriptions have been essential for locating the trail in modern times.

The Lewis and Clark Expedition represents the first known Euro-American use of the Lolo Trail. The expedition crossed the Bitterroot Range via the Lolo Trail twice during their explorations. They used the trail for the first time during September of 1805 on their westward journey to the Pacific Ocean. The second crossing was in June of 1806 on their return trip (Devoto 1953).

The fact that the Lolo Trail was an established travel route prior to 1805 is evidenced by the existence and condition of the trail and the examples of Native American activity described along the route. Clark writes September 11, 1805:

we proceeded on up the creek [travelers rest]
(present-day Lolo Creek) on the right [hand]
side [left bank] thro a narrow valie and good
road for 7 miles and encamped at some old
indian lodges (Thwaites 1969, Vol. 3:62).

Other members of the expedition also commented on the presence of Native American activity along the Lolo Trail. Private Joseph Whitehouse, another member of the Lewis and Clark expedition, kept a journal of his observations. Whitehouse wrote on September 12, 1805:

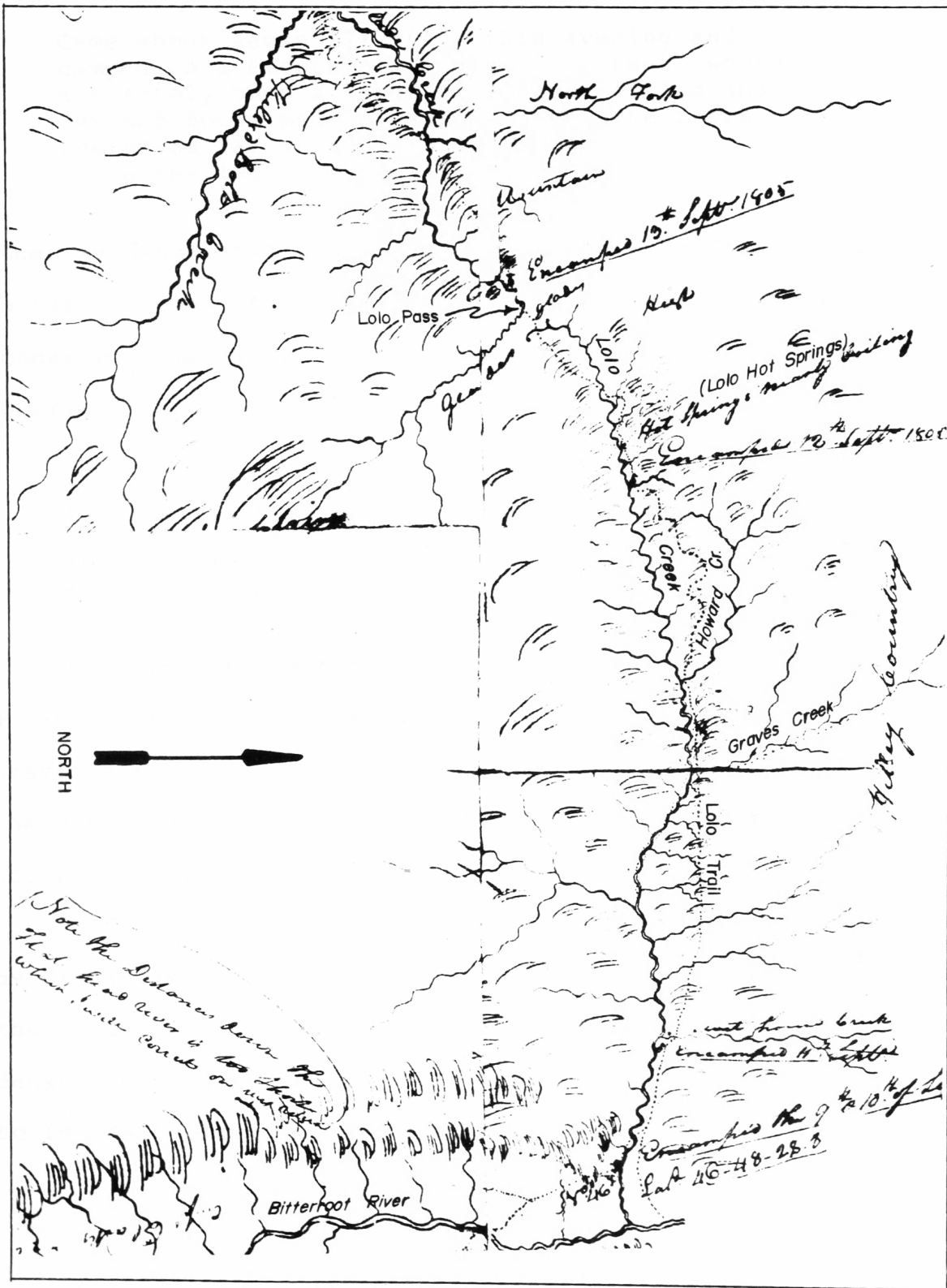


Figure 3. Route of the Lewis and Clark Expedition 1805-1806 (Thwaites 1906).

Came about seven (7) miles this evening and camped on a smooth plain near the creek, where had lately been a large encampment of Indians. Saw one house made of earth. The Pine trees peeled as far up as a man could reach (Thwaites 1969, Vol. 7:154).

Other evidence that points to use of the Lolo Trail prior to the Lewis and Clark crossing is the numbers of scarred Ponderosa pine trees encountered along the route. Clark describes these features on September 12, 1805:

on this road and particularly on this creek the Indians have peeled a number of Pine for the under bark which they eat at certain seasons of the year, I am told in the spring they make use of this bark (Thwaites, Vol. 3:63).

Finally, the fact that Lewis and Clark had native guides (both Flathead and Nez Perce) who knew of and had previously traversed the Lolo Trail from either side of the Bitterroots clearly shows the trail was a well-known, accepted travel route prior to 1805.

Unfortunately, the "good road" initially encountered by Clark was not to last. As soon as the expedition left the valley floor and began travelling in the steep, densely wooded mountains, the trail became more difficult to follow. Clark writes on September 12, 1805:

the road through this hilly country is very bad passing over hills and through steep hollows over falling timber and etc. continued on and passed some most intolerable roads on the sides of the steep stony mountains. (Thwaites 1969, Vol. 3:63).

The Lolo Trail continued to cross an extremely rugged and difficult route through the remainder of its course. The coniferous forest environment offered only limited graze for horses, and the rugged terrain greatly impeded their effectiveness as pack animals. Also, snow could be a very real problem almost any month of the year. Snow not only made travel difficult, but oftentimes totally obscured the trail so the route could not be identified (Thwaites 1969, Vol. 3:70).

Another obstacle encountered by the Lewis and Clark Expedition over the Lolo Trail was the apparent absence of big game animals or other dependable food resources. Almost daily, hunters for the party would return empty-handed or only with a few squirrels or grouse. Several nights along the Lolo Trail the expedition was reduced to eating their horses or a "soup" made with bear's oil and candles (Thwaites 1969, Vol. 3:71).

When the expedition finally reached the Wierpe Prairie, the western terminus of the Lolo Trail, on September 20, 1805, they were a battered and nearly starved group. However, Clark did encounter a large Nez

Perce village and was able to acquire substantial supplies of foods consisting of buffalo meat, dried berries and roots. Later the group acquired stores of dried salmon from the Nez Perce, which they readily consumed and promptly became very ill. The Lewis and Clark expedition remained with the Nez Perce for several days while they constructed canoes for the remainder of their journey to the Pacific Ocean.

The Lewis and Clark Expedition crossed the Lolo Trail again in July of 1806 on their return journey. This crossing was substantially easier than their first but certainly not without difficulty. The expedition departed the Wieppe Prairie June 15, 1806, attempting to cross the Lolo Trail. However, two days later after encountering deep snows, they realized a guide would again be necessary for an early crossing of the Lolo Trail. On June 23, 1806, the party secured the services of three Nez Perce Indians, who agreed to guide the expedition as far as the falls of the Missouri for the compensation of two guns (Devoto 1953:408-509). Even though much of the trail was covered with snow, the Nez Perce guides showed a remarkable knowledge of the trail and the entire route. An example of the Nez Perce guides' ability is described by Clark June 25, 1806:

the guides traverse this trackless region with kind of instinctive sagacity; they never hesitate they are never embarrassed; and so undeviating in their steps that whenever the snow has disappeared for even a hundred paces we find the summer road (Coues 1893:509).

The Nez Perce guides further exemplified their knowledge of the trail by locating campsites where the snow had recently melted, thus providing adequate grass and water.

Overall, Lewis and Clark's return journey over the Lolo Trail was easier than the previous spring. Game was more abundant and the expedition began its trek with more food stores. The party reached Traveler's Rest on June 30, 1806, having crossed the Lolo Trail in just six days. The reasons for such a successful crossing can partially be attributed to their preparedness for the venture based on past experiences. However, a large portion of their success relates directly to their Nez Perce guides, who were intimately familiar with the route and problems associated with the crossing.

Following the Lewis and Clark Expedition of 1806, western Montana and north central Idaho were extensively explored by other travellers associated with the fur trade. David Thompson traveled extensively through parts of northwestern Montana, northern Idaho and eastern Washington between 1809 and 1811. Thompson, a representative of the British Northwest Company, established

"Saleesh House" near present-day Thompson Falls, Montana, in 1809. He also explored the Clark Fork and Flathead Valleys, travelling as far south as present-day Missoula. Thompson was familiar with the Lewis and Clark Expedition and had obtained a copy of the Patrick Gass's journal, which was published in 1807 (White 1950). However, Thompson never did travel south into the Bitterroot Valley or over the Lolo Trail. Thompson's travels in western Montana were primarily via the Clark Fork River and Lake Pend d'Oreille, a route that became particularly important in the early nineteenth century (Choquette and Holstein 1982:65).

The Clark Fork River and Flathead Lake country experienced a variety of activities during the fur trade era by both British and Americans. Competition for trade and furs by both nations, combined with an undefined boundary, brought both British and Americans into western Montana. In 1821 the Northwest Company merged with the Hudson's Bay Company and relocated Flathead Post near present-day Eddy, Montana (Lewis and Phillips 1923:46). Flathead Post became an outfitting center for the Hudson's Bay Company's "Snake Country Expeditions." These expeditions attempted to "trap out" the region between the Clark Fork and Snake Rivers, which would force the Americans to concentrate their efforts elsewhere (Choquette and

Holstein 1982:67).

The fur trade was active in western Montana, as exemplified by the activities of the Hudson's Bay Company in the area of Flathead Lake and those American trappers such as Jedediah Smith (1824-1825) and Joshua Pilcher (1828), who traversed the area in the 1820s. However, the Lolo Trail was not used by these groups as a major travel route. The fur traders appear to have preferred following the river routes such as those of the Clark Fork and Bitterroot Valleys. The one exception to this is John Work of the Hudson's Bay Company. Work led his Snake River Brigade west over the Lolo Trail in September and October of 1831. This party of trappers, which included women and children, left Wierpe Prairie September 26, 1831, and reached the Bitterroot River on October 18, 1831 (Lewis and Phillips 1923:82-89). Work's party spent a total of twenty-one days on the trail compared to the eleven days Lewis and Clark spent on their westward crossing in 1805 and the six days on their return in 1806. The obstacles and problems encountered by Work's expedition were similar to those endured by Lewis and Clark twenty-six years earlier. Work's description of October 13, 1831, states:

Overcast, fair weather and the forepart of the day, rain in the evening. Raised camp and proceeded three and one half hours, eleven miles N. to a small plain at hot springs on Soloas River (Lolo Hot Springs on Lolo Creek). The road today not hilly but very much embarassed with fallen wood, and very fatiguing on the horses.

Three gave up by the way and three were lost in the woods (Lewis and Phillips 1923:86).

Inclement weather, rugged topography along with fallen timber and lack of adequate forage appears to have characterized the Lolo Trail in the early 1800s. The trail may have been avoided by the larger trapping parties for these reasons. However, it is reasonable to assume that small groups or individual trappers frequented the Bitterroot Mountains and probably traversed the Lolo Trail between 1820 and the early 1840s (Josephy 1959:84).

Documented use and descriptions of the Lolo Trail increased greatly during the next decade. St. Mary's Mission was established in 1841 in the Bitterroot Valley near present-day Stevensville, Montana (Fahey 1974:74). No documentation exists for Catholic missionaries in Montana or the Protestant missionaries in Idaho using the Lolo Trail. The Southern Nez Perce Trail was used to cross the Bitterroot Mountains into Idaho by the Reverend Samual Parker in the early 1830s (Josephy 1965:137).

In 1850 Major John Owen acquired the St. Mary's Mission and its improvements from the Catholic Fathers. Owen began rebuilding the mission into a frontier trading post, which soon became known as Fort Owen. Major Owen frequently travelled to other trading centers, such as Fort Hall, Fort Benton, Forts Walla Walla and Vancouver, to acquire supplies for his operation in the Bitterroot. John Owen was knowledgeable about the Lolo Trail and had hoped the route would become the main thoroughfare to the Columbia River system. Unfortunately, this was not to happen, and by the mid-1860s the Mullan Road, farther north, filled this role. However, John Owen documented crossing it on at least three separate occasions in 1852, 1857 and 1863 (Dunbar and Phillips 1927:52). Owen's accounts of the Lolo Trail indicate the trail remained a difficult route not unlike that described by Lewis and Clark and John Work. Steep, rugged country, choked with fallen timber and inadequate forage, characterized the Lolo Trail in the 1850s.

In 1852 Jefferson Davis, the secretary of war, was authorized to survey possible railroad routes across the Rocky Mountains with hopes of eventually completing a transcontinental railroad. The governor of Washington Territory, Isaac Stevens, was placed in overall charge of the project for the Pacific Northwest. The Stevens

railroad surveys looked for all possible routes across the Rocky Mountains and reconnoitered five possible routes: Marias Pass, Lolo Pass, Hell-Gate, Cadotte's Pass and Lewis and Clark Pass (Goetzman 1967:285). One of the officers assigned to Stevens' command was John Mullan (who later gained fame in the Northwest for constructing the Mullan Military Road between Forts Walla Walla in Washington and Fort Benton, Montana). Mullan explored and mapped the Lolo Trail for a possible railroad route during September and early October 1854. Mullan is credited with naming Montana's Lolo Creek the "Lou Lou Fork" (see Figure 4) (Josephy 1959:84). Lieutenant Mullan's report to Governor Stevens was less than encouraging of using the Lolo Trail as a railroad route. Mullan states:

Taking a retrospective view of the country passed over from the Bitterroot Valley to the Nez Perce camp I can arrive at but one conclusion -- that the route is thoroughly and utterly impracticable for a railroad route. From Lou Lou's fork to the Clearwater the country is one immense bed of rugged, pinnacled and difficult mountains, that can never be converted to any purpose for the use of man (U.S. War Dept. 1855, Vol. 13:536-537).

Again, Mullan's report on the Lolo Trail in 1854 does not differ substantially from those of earlier travelers such as Lewis and Clark, John Work and Major Owen. Mullan's contributions to our knowledge of the Lolo Trail

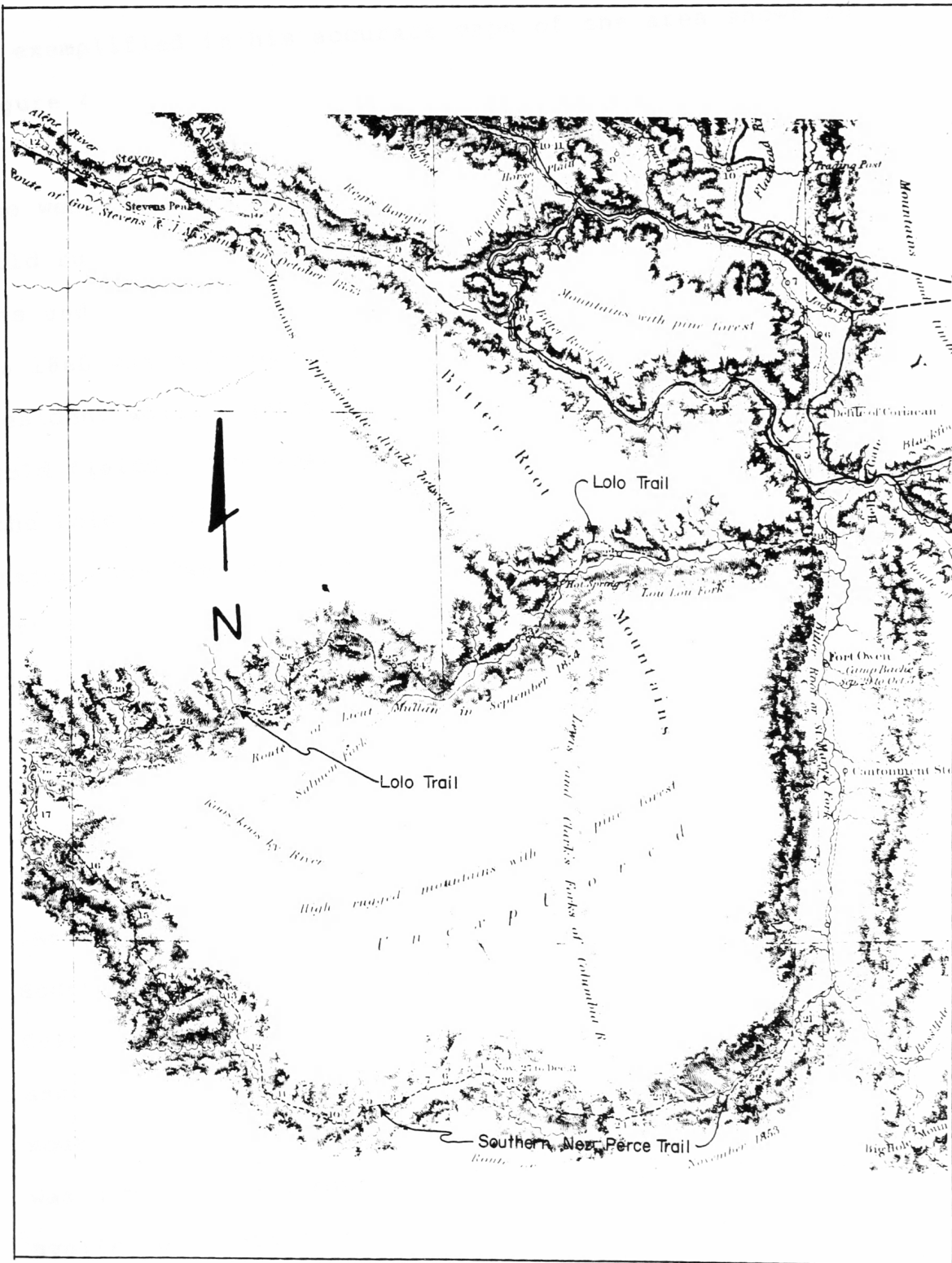


Figure 4. Rocky Mountains to Puget Sound, Map No. 3, by Isaac Stevens, Governor of Washington Territory, 1853-1854 (Route of Lt. John Mullan over the Lolo Trail).

is exemplified in his accurate maps of the area shown in Figure 4.

In 1860 gold was discovered at Pierce, Idaho (near the western terminus of the Lolo Trail), and by 1861 a gold rush to the Clearwater and Salmon River gold fields was under way (Space 1970:41). Although western Montana in 1860 was a frontier community with a very small resident white population, many people left for the Idaho gold fields. The most direct route would have been over the Lolo Trail or the Southern Nez Perce Trail. Both Major John Owen and Granville Stuart make reference to prospectors using these routes to the Idaho gold fields during this period (Lewis and Phillips 1923; Stuart 1925). Shortly after the initial gold strikes at Pierce and contemporary with the strikes at Elk City and Florence, gold was found in Montana. A gold rush occurred in 1862 in the vicinity of Gold Creek near Deer Lodge, Montana (Stuart 1925:133). Several other strikes occurred in southwestern Montana near Bannack, Virginia City and Alder Gulch in the early 1860s. The Lolo Trail was actually a secondary route between the Idaho gold camps and those in southwestern Montana, since the Southern Nez Perce Trail was a more direct route (Josephy 1959:84). Other routes available to miners travelling from Idaho east into Montana included the newly constructed Mullan Road and the

"Montana Trail." The Montana Trail passed north from Pierce, Idaho, across the Bitterroot Mountains and down Deer Creek, a tributary of the St. Regis River, joining the Mullan Road near present-day DeBorgia, Montana.

In 1865, shortly after the Civil War, the idea of a wagon road across Lolo Pass received great attention. Merchants in Lewiston, Idaho, were eager to tap the trade to supply the Montana gold fields, and the Lolo Trail would cut 160 miles off existing routes (Jackson 1952:312).

In 1865, \$50,000 was appropriated by the federal government to construct a wagon road across the Bitterroot Mountains. The project was under the supervision of Wellington Bird, with Major Sewell Truax serving as chief surveyor.

Work began in May 1866 and, after initial reconnaissance was completed, the Lolo Trail appeared to be the best overall route. However, Bird quickly assessed that the road could not be completed for the appropriated \$50,000. Instead, Bird directed Major Truax to conduct an instrument survey for a wagon road and undertake clearing operations to accommodate pack animals. With Truax left to direct the project, Wellington Bird travelled to Washington D.C. to ask the Interior Department to appropriate an additional \$60,000 to complete the wagon

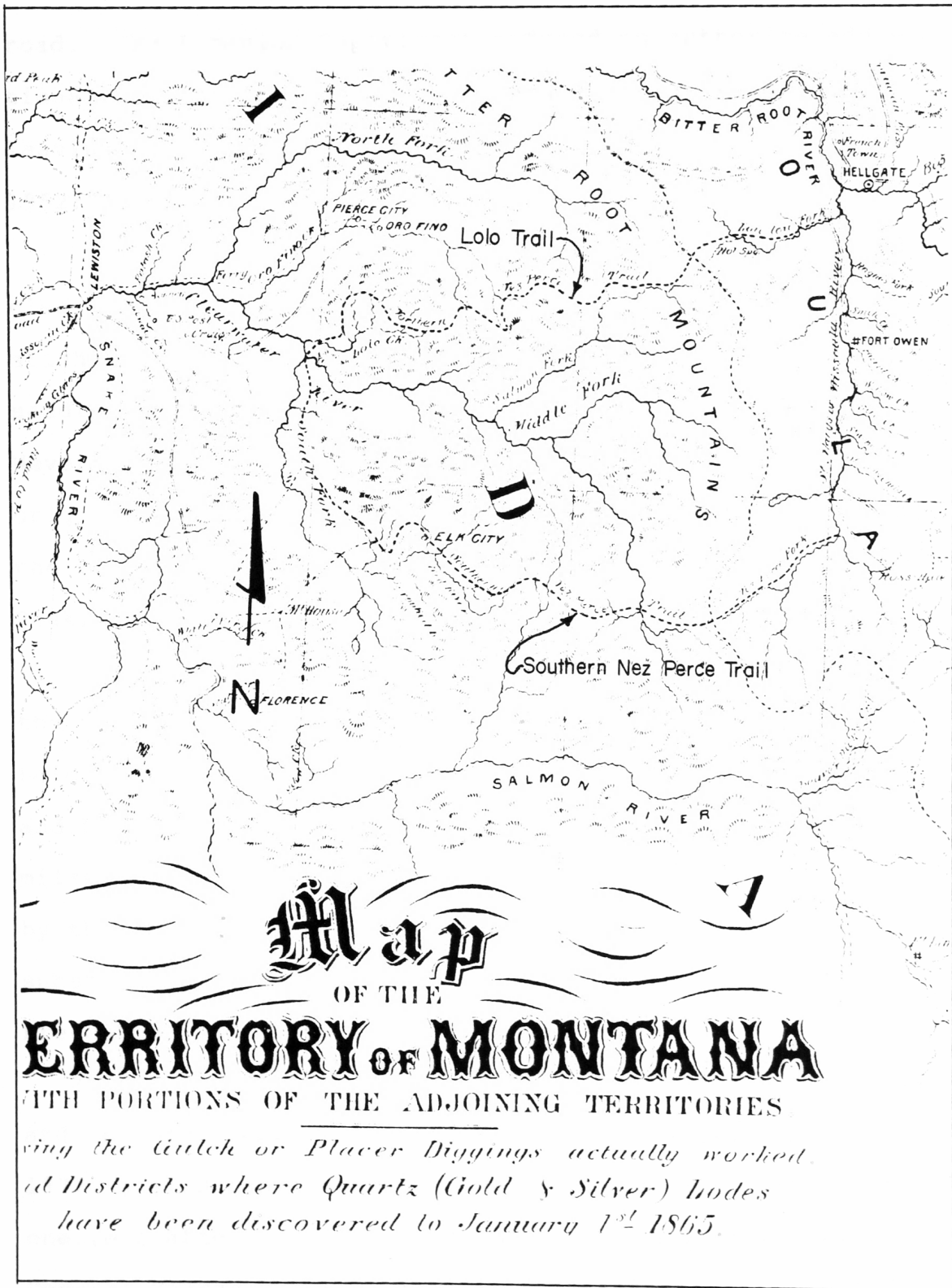


Figure 5. Map of the Territory of Montana drawn by W.W. de Lacy, 1865.

road. The Interior Department refused to authorize additional dollars for the project, and Bird was rebuked for leaving his duties without authorization (Jackson 1952:316-318).

In Idaho, where the major portions of the survey and clearing operations were undertaken, the trail was slightly rerouted in places and graded from saddle to saddle, which eliminated several steep stretches. Nevertheless, the Bird Truax Trail basically followed the original route of the Lolo Trail. Several landmarks along the Lolo Trail were named, such as Snowy Summit, Sherman Peak, Bald Mountain and Noseeum Meadows (Space 1970:43).

By the late 1860s homesteaders had begun to arrive in the vicinity of Lolo, Montana, the eastern terminus of the Lolo Trail. John Delaney homesteaded near Lolo in 1865, and by the late 1860s a good wagon road travelled six miles up Lolo Creek to additional homesteads. Likewise, by the mid-1870s, the Bitterroot Valley contained a substantial number of settlers as did the communities of Frenchtown and Missoula.

Consequently, when hostilities erupted between whites and the non-treaty Nez Perce Indians of central Idaho in 1877, a mild panic ensued. The Nez Perce War began only one year after the Battle of the Little Big Horn, where General George Custer's cavalry detachment was annihilated

by Sioux and Cheyenne Indians. The Nez Perce had been travelling into western Montana for many years for trading purposes or enroute to the buffalo herds in eastern Montana. They maintained good relations with the Flathead Indians and white settlers in the Bitterroot Valley. Following the Battle of White Bird and shortly thereafter the Battle of the Clearwater, the Nez Perce retreated to the Wierpe Prairie, the western terminus of the Lolo Trail (Andrist 1964:308). The Indians naively believed their fight was only with General Howard and once they left Idaho they would be safe. A council was held at Wierpe and Chief Looking Glass was named war chief for the band. Also, the decision was made to travel east over the Lolo Trail into Montana and join forces with the Crow. The Nez Perce began their journey across the Lolo Trail in mid-July. Their group consisted of approximately two hundred men and five hundred and fifty women and children and about two thousand horses (Joseph 1965:557).

General Howard, on the other hand, remained in Idaho for nearly two weeks after the Nez Perce began their crossing of the Lolo Trail. His reasons for the delay were twofold. First, he believed the Nez Perce were possibly only hiding in the mountains waiting to return and catch the army or settlers off guard. Secondly, if Howard pursued the Nez Perce into Montana, it would leave

Idaho defenseless against other possible uprisings by treaty Nez Perce or the "Columbia River Renegades" (Josephy 1965:560). Finally, on July 28 three companies of cavalry reinforced with twenty Bannock Indians arrived from Fort Boise to provide additional security for west central Idaho. This relieved General Howard of the responsibility and finally allowed him to begin his pursuit of the Nez Perce.

Howard began his campaign at 5 a.m. on the morning of July 30, 1877. His command totalled nearly seven hundred men spread out in the column over two miles long. Although the trail had been cleared and in some cases modified by Major Truax eleven years earlier, it was now choked with brush and fallen timber. The trail was so difficult that Howard employed a group of fifty axemen under the command of Captain Spurgin to clear the deadfall and widen the trail to accommodate his column (Josephy 1965:562). Howard's column consisted of infantry, artillery and cavalry supplemented with volunteers and usually averaged sixteen miles a day. Howard, however, felt sixteen miles a day on the Lolo Trail was equivalent to a thirty-mile march in less formidable country. A typical day's march would begin with reville at 3 or 4 a.m., breakfast at 4 or 5 a.m. and march at 5 or 6 a.m. The men would march until 4 p.m., marching for fifty

minutes and resting for ten (Sutherland 1878:10).

Howard unknowingly began his march after the Nez Perce had completed their crossing over the Lolo Trail and were moving south up the Bitterroot Valley. Local residents of Missoula and its surrounding area were disturbed when they heard the reports from the Battle of the Clearwater and that the insurgents were coming their way. Captain Charles Rawn, with a small detachment of the Seventh Infantry, was ordered to intercept the Nez Perce near the eastern terminus of the Lolo Trail. On July 25, 1877, Rawn, with a small unit of regular soldiers reinforced with citizen volunteers, began constructing a log and earthen breastworks as a defensive position. The volunteers were mostly local residents from Missoula and the Bitterroot Valley and normally maintained excellent relations with the Nez Perce. These men tried to dissuade Rawn from a military confrontation since they feared possible reprisals to their homes and families. Captain Rawn met with Chiefs Looking Glass and White Bird two different times to discuss ending the hostilities. The Nez Perce offered to give up their entire stock of ammunition as a gesture of their peaceful intentions in order to pass through the Bitterroot Valley without incident. Rawn's orders allowed him only to accept unconditional surrender. This was rejected by the Nez

Perce because they feared strong punishment from the government and the possible hanging of their leaders.

The next day, July 28, the Indians ascended the ridge system on the north side of Lolo Creek and bypassed the breastworks. A few sporadic shots were exchanged, but no casualties were inflicted on either side, and a major confrontation was avoided. The Nez Perce descended the ridge near the mouth of Sleeman Creek only a few miles west of Lolo, Montana, and continued their trek up the east side of the Bitterroot Valley. This event is generally known as the "Fort Fizzle Affair" (Josephy 1965:569,571); however, it is referred to as "Rawn's Breastworks" in the official military record (Lolo History Committee 1976:8).

The Nez Perce, upon reaching Montana, believed they were relatively safe and began a leisurely trek south up the Bitterroot Valley enroute to the Yellowstone country. The crossing of the Lolo Trail by the Nez Perce and General Howard is but a small part in the history of the Nez Perce War. Nevertheless, these events and General Howard's descriptions show us that the trail was a well-known but extremely difficult route in 1877, even though portions of the trail had been widened, cleaned and in some cases rerouted eleven years earlier by Bird and Truax.

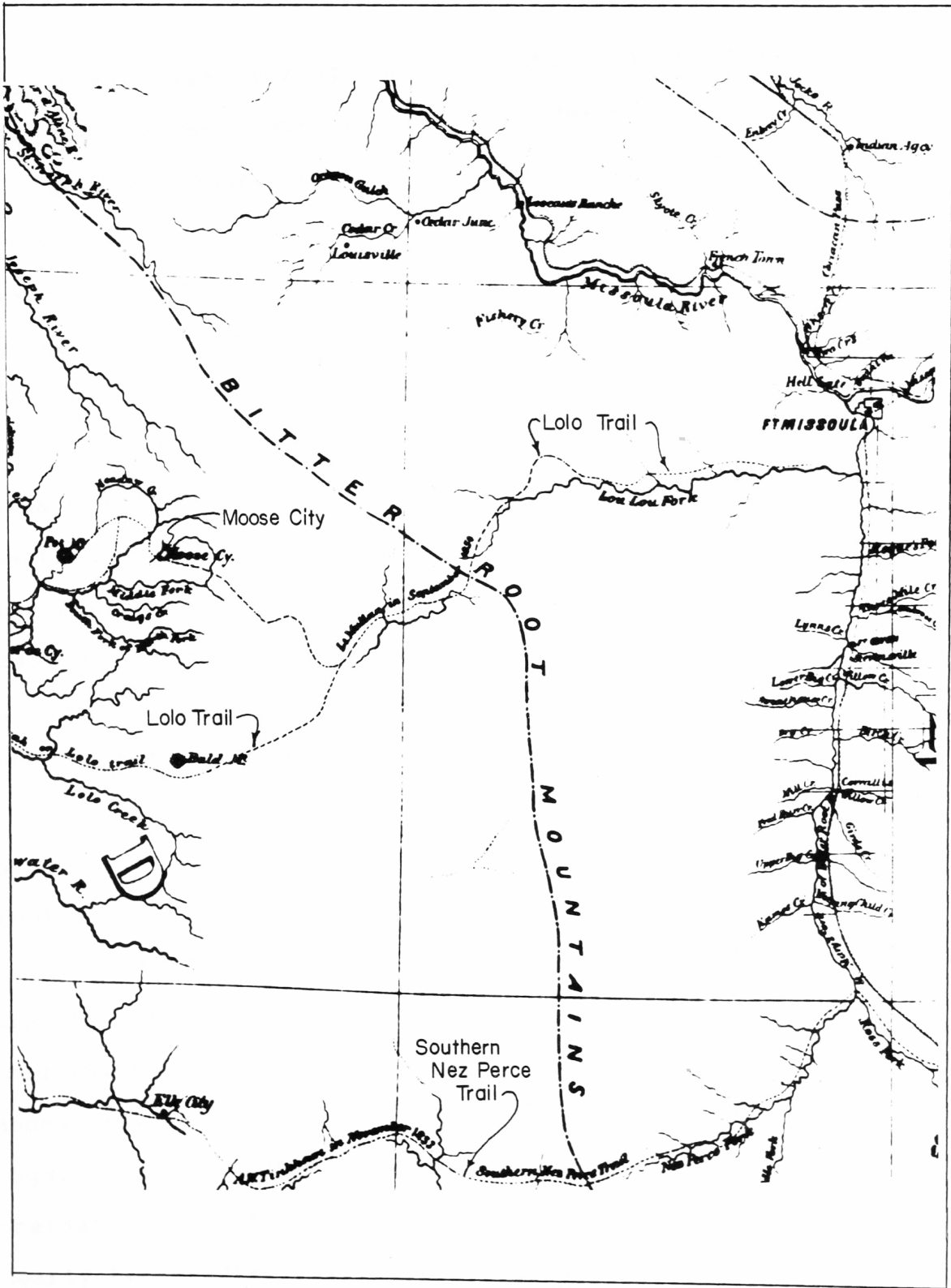


Figure 6. Map prepared by Brig. Genl. A.A. Humpherys, Chief Engineer (PRS 1881).

Settlers began moving into the Lolo Creek area well before the Nez Perce War, and by the mid-1860s the Missoula County Courthouse records show both mining and ranching being pursued in the Lolo Creek drainage. The presence of settlers and their activities no doubt began to affect the traditional use patterns and function of the Lolo Trail at least in the Lolo Creek drainage.

The first recorded settler within the Lolo Creek drainage was Matthew Adams, who filed on a ranch near Vanetta Creek in July 1866. Adams appears to have been quite active in the area during the 1860s, as shown by the Missoula County records. In 1867 Adams, with two partners, filed two mining claims in Lolo Canyon. These were "The Red Bear" and "The Forelone Hope" Mines.

In 1869 Adams and his partners were granted the right to run toll pack trips from the Summit of the Bitterroot Mountains (about eight or ten miles from the Moose Creek Mines and Moose City) east to the warm springs (present-day Lolo Hot Springs) and downstream to the Missoula-Fort Owen Road (Missoula County Courthouse Records, USFS copy:1968). Moose City was located in Idaho near Moose Creek (see Figure 6). Gold was discovered in 1862, and shortly thereafter a sizeable town grew up with a population of nearly two hundred people. At the height of the mining period, Moose City consisted of three general stores,

jail, butcher shop, hotel, restaurant and saloon. Moose City existed for a relatively short time and was nearly abandoned by the 1870s (Space 1980:132). Adams' pack trips were probably freighting ventures to supply the mines from an eastern route rather from Lewiston, Idaho, or over the much easier but longer, newly constructed Mullan Road. The record shows he was a known packer and freighter in 1867 and paid taxes on oxen valued at \$1,925. In all probability, Adams and his partners were using the Lolo Trail, at least as far as Lolo Hot Springs and perhaps farther. However, from the hot springs their route may have been modified for a more direct route to the Moose Creek Mines (author's opinion).

Matthew Adams did not remain long in the vicinity of Lolo Creek. In 1871 Adams sold his ranch to a Mr. James Buckley and apparently left the country (Lolo History Committee 1976:50). The Missoula County Courthouse records indicate that a few other people had settled or acquired land holdings a few miles up Lolo Creek. However, it was not until the 1880s and early 1890s that there was a dramatic increase in settlement and homesteading within Lolo Canyon. By 1891 eighteen mining claims had been filed in the Lolo Creek drainage, and at least three registered sawmills were in operation (Missoula County Courthouse Records, USFS copy:1968).

The increased population and diverse economic activities taking place in the Lolo Canyon generated changes or improvements in the existing transportation and communication systems. Maintenance was completed on the "Lou Lou grade" in 1868 by a Mr. Lew Harriss, who was paid fifty dollars by Missoula County for his efforts. Three years later in 1871, an unnamed individual was again paid one hundred dollars to repair the "road" (Missoula County Courthouse Records, USFS copy:1968). It is impossible to determine whether or not the "Lou Lou grade" is merely an improvement of the Lolo Trail. However, it is described as lying on the north side of the creek, which corresponds to the location of the trail used by Lewis and Clark and Lieutenant John Mullan (see Figures 3 and 4).

In September 1880 the "woodman grade" was repaired by Mr. J.P. McClain, and in 1883 a formally designed road was built from the Duggett Homestead (near present-day Lolo, Montana) to the Woodman Homestead (near present-day Woodman Gulch). The distance between these points is approximately eleven miles. The valley is relatively wide and the terrain gentle. It is highly probable that this road followed the Lolo Trail until it reached Woodman Gulch. In December 1888 this road was continued from Woodman Gulch, on the north side of the creek, to the "Lou

Lou Warm Springs" (presently known as Lolo Hot Springs)
(Missoula County Courthouse Records, USFS copy:1968).

Lolo Hot Springs became a popular resort in the late nineteenth and early twentieth centuries and was serviced by a stagecoach carrying passengers and mail from Lolo, Montana, three times a week. In 1904 O.D. Wheeler described the route to Lolo Hot Springs as "a good road up Lolo Creek to both hot springs and a stage coach runs daily during the season to and from Missoula" (Wheeler 1904:82). Lolo Hot Springs contained hotels, cabins, dining facilities, a store, and a saloon in 1888 and was a popular vacation place for people from Missoula during the summers. During the winters it provided lodging for many unemployed Forest Service or other wood workers in the early twentieth century (Lolo History Committee 1976:45). The stagecoach road to the hot springs was upgraded in 1912 so that it could accommodate motor vehicles, yet it was still the end of the road up Lolo Creek. It was not until 1928 that the road from Lolo Hot Springs was extended over Lolo Pass to the Powell Ranger Station by the U.S. Forest Service (Space 1970:53).

Although an adequate road existed up Lolo Canyon as far as Lolo Hot Springs, no other transportation systems except the Lolo Trail connected Lolo, Montana, to the Idaho settlements in the early 1900s. In 1909 both the

Union Pacific and Northern Pacific Railroads hoped to secure a railroad right-of-way up Lolo Canyon, over the Bitterroot Mountains to Kooskia, Idaho (Lolo History Committee 1976:34). James Jerome Hill, already a well-known railroad man, secured a right-of-way from the federal government to construct the Clearwater Short Line Railroad. The president of the Union Pacific, E.H. Harriman, was not to be outdone by Hill and dispatched a survey crew to Lolo Canyon to begin work in competition with Hill. In 1910 it is estimated that twenty-one hundred men were working for the railroads at various points within Lolo Canyon. Several camps were established along the route, and a field hospital was established at Lolo Hot Springs. In 1910 the survey for the Northern Pacific was completed to Kooskia, Idaho. The chief engineer, a man named Darling, calculated it would be impossible to maintain a 1 percent railroad grade through the Bitterroots. This announcement halted the Northern Pacific crews in their tracks, and the project was quickly abandoned. Almost simultaneously, E.H. Harriman died and the board of directors for the Union Pacific heard the results of Mr. Darling's survey to Kooskia. The Union Pacific Railroad survey, which never enjoyed strong company support except from Harriman, was also quickly closed down (Lolo History Committee 1976:35). Over fifty years

after Lieutenant John Mullan surveyed the Bitterroot Mountains in this area for the Stevens railroad survey in 1853, his original recommendations were confirmed.

Western Montana and north central Idaho was still a primitive wilderness near the turn of the century, as were other isolated portions of the United States. However, due to the extensive exploitation of the nation's mineral and timber resources in the late 1800s, government protection was necessary to ensure that remaining lands were properly used. In 1897 the Bitterroot Forest Reserve was established by President Grover Cleveland, with the first ranger station located on the west fork of the Bitterroot River at Alta. This forest reserve included lands in western Montana and north central Idaho and was the forerunner of the National Forest System of today.

John Leiberg explored and mapped much of the Bitterroot Reserve in 1898. He described the country, its wildlife and physical features in great detail. One observation he made was of the large amount of acres burned by forest fires. Leiberg suspected they were all man-caused and recommended stringent laws and patrolmen to range throughout the reserve to suppress these fires (Leiberg 1899:277).

In 1905 the U.S. Forest Service was created, with Gifford Pinchot as its chief. The Lolo Trail fell within the administrative boundaries of the newly created Lolo and Clearwater National Forests. In 1907 monies were appropriated to clear and upgrade the Lolo Trail. Crews from the Lolo National Forest were to begin at Lolo Hot Springs (the end of the road) and work west. The party from the Clearwater National Forest would begin in Idaho (near Siberia Creek) and work east, with both crews hoping to complete the job and meet somewhere on the trail in late August (Space 1970:52).

On the Idaho side, the crew, under the direction of Ranger John Durant, rerouted a ten-mile segment of the trail to level the grade and avoid muddy areas. Once they reached the segment used by General Howard and the Bird Truax party, only clearing and brush removal was performed. The Forest Service continued to clear and maintain the Lolo Trail during the following years as well as building many more trails that diverged both north and south from the original route. Many of these secondary trails were built for fire control purposes or as access for the construction of fire lookouts or telephone lines.

In 1930 a construction project was undertaken by both the Lolo and Clearwater National Forests to build a road over the Bitterroot Mountains. The road would follow the

general route of the Lolo Trail and in some places replace the original trail with a road. The road was to consist of a single-lane with turnouts and would finally provide a route to connect Lolo, Montana, with Wierpe, Idaho (at least during the summer months). In 1933 President Franklin D. Roosevelt established the Civilian Conservation Corps (CCC) to provide employment for young men to combat the economic strife of the great Depression. The U.S. Forest Service was one agency that received large numbers of CCC manpower. Many of these young men were put to work on the road using both hand-operated and power tools (Koch 1934:98). The Lolo Motorway, as it was then called, was completed in 1935 near "Indian Grave" on the Idaho side of the Bitterroot Range (Space 1970:53).

Although the Lolo Motorway was an acceptable motorized route across the Bitterroots, it continued to be a very slow and difficult road. Deep snows prohibited its use except during late summer and early fall. Between 1935 and 1957, work was undertaken for a road that would connect Lewiston, Idaho, with Missoula, Montana. The Forest Service, in cooperation with the Bureau of Public Lands, used CCC laborers and later prisoners of war for its construction. After World War II, some federal funds were appropriated to complete the job, but still the road progressed slowly. In 1957 a congressional investigation

was convened to assess the highway's progress. Shortly thereafter, four million dollars were appropriated to complete the Lewis and Clark Highway, and full-scale construction began from both the Montana and Idaho sides. Finally, in August 1962, ceremonies were held in Packers Meadows near Lolo Pass, officially opening the Lewis and Clark Highway (Space 1979:75). Unlike the original Lolo Trail, the Lewis and Clark Highway followed the main water courses of Lolo Creek in Montana and the Lochsa and Middle Fork of the Clearwater River in Idaho.

CHAPTER V

FIELD WORK RESULTS

Before undertaking a pedestrian survey of the Montana portion of the Lolo Trail, the general route was divided into five segments to facilitate intensive study. These artificial segments are identified on the basis of man-made and natural features such as major land ownership patterns, streams, ridge systems or large meadows.

The first segment begins near Lolo, Montana, and extends approximately eleven miles west to Woodman Gulch (see Figure 7). This is the widest portion of Lolo Canyon, and the topography is very gentle. This area has undergone extensive subdivision and development in recent years and is characterized by many private homes and small farms. Nevertheless, field work was undertaken on these lands where permission had been granted by the landowner.

The Thwaites map (see Figure 3), as well as those produced after the Lewis and Clark Expedition such as Stevens 1854, de Lacy 1865, etc. (see Figures 4 and 5), shows this to be the location for the trail in the early and late 1800s. The trail lies north of Lolo Creek close to the "toe" of the slope. Today, remnants of a narrow, unimproved dirt road, such as that depicted on maps produced by early travellers, can be seen against the

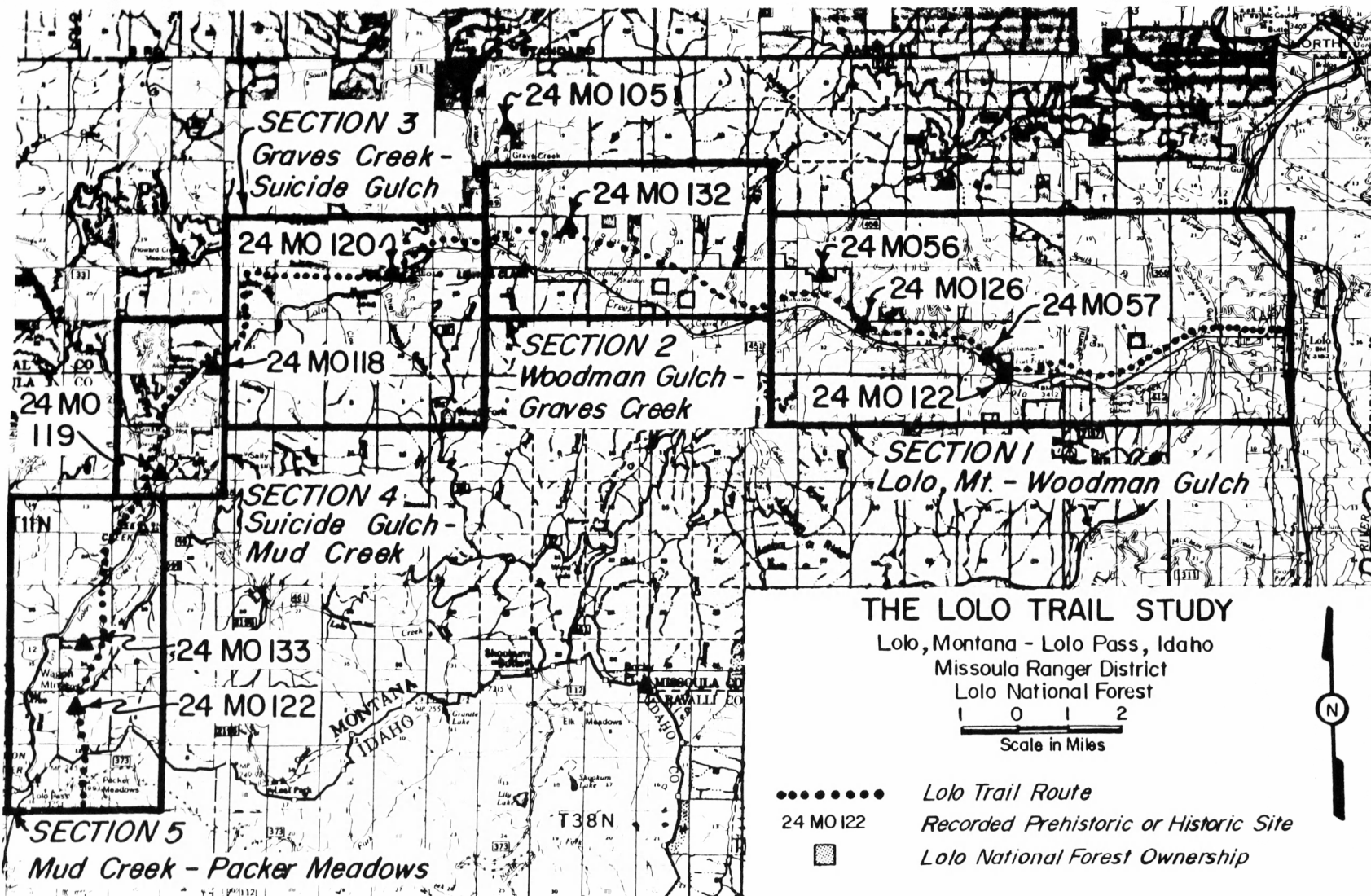


Figure 7. Map showing location of the Lolo Trail in Montana (Lolo, Montana - Lolo Pass).

hillside in the area. Captain Clark described the trail as a "good road," and it is likely that this segment remained in use for many years. Improvements were made as necessary in later years, and perhaps some slight rerouting occurred, but the first road appears to correspond closely to the original trail. Some very practical reasons account for this location. First, the north bank of Lolo Creek is a south-facing aspect, where vegetation is normally less dense due to drier conditions. Dry conditions would allow a trail to remain open later in the fall and earlier in the spring, since there would be less accumulation of mud or snow as well as vegetative debris. A route following the stream bank in historic times would probably have been impeded by dense brush and willows as well as wet marshy conditions for much of the year.

There is no single prehistoric or historic site known to exist along this segment that would unquestionably prove this to have been the original trail. However, several sites exist that strongly support this supposition. Captain Clark describes on September 12, 1805, the large number of pine trees seen from the trail with their bark peeled by Indians for food (Thwaites 1969, Vol. 3:63). Several of these "scarred trees" can still be found adjacent to the existing road between Lolo, Montana, and Woodman Gulch. Fort Fizzle, which was established by

Captain Rawn in 1877 in an attempt to halt the non-treaty Nez Perce Indians from escaping from Idaho over the Lolo Trail, also occurs in this segment. The "fort" was established approximately seven miles west of Lolo, Montana, along the existing wagon road. Other historical sites and features occur along the county road, which was an outgrowth of the Lolo Trail such as the Chickamin Mine (24MO57), the Woodman School (24MO126), and the original settlement of Woodman (no site number), a small community that even supported its own post office in the early 1900s. These sites and historical features show a continuum of use and development along this route dating from the early Historic Period up through the early twentieth century.

The second study segment for the Lolo Trail extends west from Woodman Gulch to Graves Creek (see Figure 7). This portion lies within the forested hills north of Lolo Creek and is owned primarily by commercial timber companies or private citizens. The topography consists of a series of long, flat ridges dissected by many secondary tributaries of Lolo Creek. Remnants of original trail tread can be found ascending the ridge on the western end of Woodman Meadows. Once the trail reaches the first saddle, old logging activity has destroyed all physical remains of trail tread. This entire area has been logged many times since the early 1900s as shown by the many

stumps of different ages and, consequently, extensive ground modification has occurred. The many old stumps from Ponderosa pine trees cut in the past also reduce the possibilities of encountering scarred trees.

Nevertheless, enough evidence exists in this section to establish an accurate location for the trail. In contrast to the previous section of trail discussed, this segment did not evolve into a wagon road but remained a foot and/or horse travel route until it fell into disuse due to technological changes in transportation systems and changing local needs.

Portions of original trail tread were found on the main ridge east of Graves Creek along with several scarred Ponderosa pine trees. The trail descends the ridge into the meadows near the confluence of Graves Creek and Lolo Creek. These meadows appear to have been an important junction along the Lolo Trail. The Thwaites map (see Figure 3) indicates a satellite trail branching to the north up Graves Creek drainage. This satellite trail probably crossed the Graves Creek Petty Creek Divide and continued north along Petty Creek, terminating near present-day Alberton, Montana. Also, one prehistoric site (24MO105) lies approximately one and one-half miles north of the Lolo Trail near the confluence of Graves Creek and the east fork of Graves Creek. Site 24MO105 lies primarily

on private land, and subsurface test excavations were not conducted. Nevertheless, a limited surface collection was performed. The artifacts consisted of retouched flakes, bifaces and a projectile point fragment. The material types consisted primarily of basalts and cherts. Overall, 24M0105 contained only a scattering of cultural material, and the soil appeared very shallow, indicating very limited subsurface deposits. The cultural material recovered appeared to date this site (24M0105) from the Late Prehistoric or Protohistoric cultural period. Finally, Graves Creek was the home of a free trapper in the early 1800s named Lou Lou who supposedly owned a cabin near Graves Creek Meadows. Lou Lou was killed by a grizzly bear and was buried in a grove of pine trees near the meadow (Space 1970:2). Graves Creek is a topographic junction and an ideal camping area along the trail as it provides fresh water, gentle terrain and ample forage. One must travel at least six miles east or eight miles west to reach a similar area with adequate resources of fresh water and ample forage for livestock.

The third section of the Lolo Trail begins at Graves Creek and extends west to an unnamed drainage known locally as Suicide Gulch (see Figure 7). From Graves Creek the trail quickly ascends the timbered slopes north of Lolo Creek and travels west along the upper reaches of

the slope but below the main ridge for approximately two miles. Generally, this is a southern exposure and the slopes are relatively free from brush and downfall. Many segments of deeply worn trail tread can be observed in this area. The trail descends again into the main Lolo Creek drainage near the confluence of Howard and Lolo Creeks. Another prehistoric/historic site (24M0120) occurs nearby. Artifacts from this site include several nineteenth century rifle cartridge cases (45./70, 45./90, etc.), as well as subsurface lithic material consisting of basalt, cherts, and a green obsidian. Also, a conical metal bead and two small bone beads indicative of the Protohistoric Period were found approximately at the 15 cm level. A scarred Ponderosa pine is present on the site as well as a discernible wagon ford across Howard Creek (possibly a part of the early stagecoach road leading to Lolo Hot Springs in 1888). This site (24M0120) does not appear to provide as ideal a camping area as Graves Creek or Woodman Meadows. Nevertheless, the area at the mouth of Howard Creek appears to have been a frequently used camp site along the Lolo Trail. From Howard Creek, the trail again quickly ascends the main ridge north of Lolo Creek. The trail is initially steep and climbs rapidly to the first saddle. From this point the trail "side hills" below the main ridge at a constant grade. The trail tread

is deeply worn into the hillside and often times two or three parallel treads may be found, separated by only a few feet. Several scarred Ponderosa pine trees are found adjacent to the trail in this section as well as a "bent tree trail marker." This section of trail, at least from Howard Creek to Suicide Gulch, remains near the top of the ridge but always on the south side and maintains an even grade from saddle to saddle. Near Martin Creek, the trail drops sharply in elevation (nearly 1,100 feet) into the main Lolo Creek drainage. The ruins of an early hotel and stagecoach station (24M0118) are located nearby at the confluence of Martin Creek and Lolo Creek.

The integrity of the third segment of the Lolo Trail is the best that we observed throughout the Lolo Trail study within Montana. Logging activities and associated road building have occurred, but the trail tread and associated features (scarred trees, etc.) can still be found in nearly an unaltered condition.

The fourth segment of the Lolo Trail extends west from Suicide Gulch through the Lolo Hot Springs resort complex to Mud Creek (see Figure 7). The historical maps (see Figures 3, 4, etc.) indicate that the trail followed the main Lolo Creek drainage through this area. A large meadow extends southwest from Martin Creek to Spring Gulch for a distance of over one mile. The original Lolo Trail

and the early stagecoach road probably lie beneath the pavement of present U.S. Highway 12 in this section. Again, several scarred Ponderosa pine trees are visible on the hillside north of the highway in this area. Several more scarred trees have been found across the meadow to the southeast near Powell Creek as well. This indicates the area in and around the meadows was used for resource procurement activities by Indian groups at least in Protohistoric and Historic times.

Near the southern end of the meadow (near Spring Gulch), segments of trail tread are found again on the west bank of Lolo Creek approximately mid-slope on the hillside. Additional scarred trees were located near Granite Hot Springs, approximately one-quarter mile to the south. This area was an early resort community described by O.D. Wheeler in 1904. Extensive development and recreational activities have occurred in this area for many years, and undisturbed portions of the Lolo Trail cannot be found. However, a very old, well-worn trail winds from Granite Hot Springs around the ridge to the south approximately one-quarter mile to Lolo Hot Springs. Again, large scarred Ponderosa pine trees are found standing adjacent to the trail.

The private land holdings near Lolo Hot Springs have been drastically altered since the early 1900s with

construction of U.S. Highway 12 and the existing resort complex. Physical remains of an old, well-worn trail can be found on the small ridge immediately west of the modern highway. The trail extends south through an even-aged stand of lodgepole pine until it reaches Mud Creek.

The former Lolo Springs Ranger Station (24M0119) was located near Mud Creek and represented the end of the road for travellers going west from Lolo until 1925. Site 24M0119 was an impressive complex of log structures that once served as an important ranger station through the first half of the twentieth century. The ranger's dwelling and two associated structures were moved in 1979 to Lolo Pass to preserve these historical structures. They now function as a visitor's center for the Clearwater National Forest.

The final segment within the Lolo Trail study area extends from Mud Creek to Packer Meadows near Lolo Pass. Remains of visible trail tread ascended the ridge south of Mud Creek and can be found almost continuously along the top of the ridge for approximately one mile. The area was logged in the 1950s and again as recently as the late 1970s. The U.S. Forest Service implemented safeguards in the most recent timber sale to protect the Lolo Trail and its corridor in this area. Unfortunately, a one-half mile segment of the trail has been nearly obliterated where it

crosses private land immediately adjacent to federal property.

The first two miles south of Mud Creek can generally be described as traversing a low, gentle ridge with a southern exposure. Ponderosa and lodgepole pine are the primary timber species, again indicating a relatively dry environment. No sites, isolated artifacts or scarred trees were found within the first two miles south of Mud Creek, probably due to the following reasons. First, it is only a short distance farther (travelling east) to the hot springs, a frequently used stopping area on the Lolo Trail. Second, only a few isolated prehistoric or historic artifacts were found in other segments of the trail. The fact that none were found in this two-mile section does not appear inappropriate. Finally, the extensive logging activity that has taken place in the vicinity could have easily removed any scarred trees that may once have been present. Most of the large stumps (thirty inches in diameter or larger) observed near the trail in this segment were Ponderosa pine.

Approximately two miles south of Mud Creek, the trail crosses the west fork of Lolo Creek and ascends the ridge that separates the west fork of Lolo Creek and Lee Creek. This ascent traverses a northern exposure where Western Larch and Douglas fir and lodgepole pine are the dominant

timber species and undergrowth and downfall are heavy. The trail's gradient is relatively steep but constant. The trail tread crossed in and out of many small drainages in an attempt, I believe, to utilize those areas with an eastern exposure and less vegetative build-up. Much of this area has been previously logged, but impressive segments of the original trail can be located, and attempts to protect the trail have been implemented by the U.S. Forest Service as well as by a private timber company. Once the trail reaches the main ridge, it runs almost due south to Packer Meadows near Lolo Pass. The original trail in this area is currently maintained by the U.S. Forest Service as trail #300 and receives heavy use by both summer and winter recreationalists.

The map of Lewis and Clark (see Figure 3), as well as those of Mullan and Humphreys (see Figures 4 and 5), indicates that contemporary trail indicators correspond to the original location of the trail. These maps, ranging in time from 1805 to 1865, show the trail crossing the main drainage (the west fork of Lolo Creek) slightly west of the Hot Springs. The presence of a large scarred Ponderosa pine near the junction of the unmaintained trail tread and Forest Service trail #300 further substantiates this segment as being parts of the original Lolo Trail. Two historic sites (24MO122 and 24MO133) were also located

along this route. Both sites appear to date from the early twentieth century and are probably associated with the railroad surveys for the Clearwater Short Line. One site (24MO127) was apparently burned in the forest fires of 1910, and all that remains are the subtle foundation of former structures and a trash dump of cans and broken glass, which has been burned. The other site (24MO133) lies mid-slope, adjacent to the original trail and is a log structure complex that was never completed, possibly due to the abrupt termination of the railroad surveys. Two large, unfinished log structures and a trash dump occur at the site, as well as an overgrown but definitely man-made graded trail that extends from the camp (24MO133) up to the main ridge, to where it joins the Lolo Trail. The distance of the graded trail is approximately one-fourth mile.

From the point of contact of the original Lolo Trail tread with the U.S. Forest Service trail #300, the route extends south along the crest of the ridge approximately one mile. At the terminus of the ridge near Wagon Mountain, the trail crosses a small drainage and extends south along the east side of an unnamed creek to its headwaters at the crest of the Bitterroot Mountains near Packer Meadows. Packer Meadows was the terminus for the Lolo Trail study primarily because the meadows are located

in Idaho and on lands administered by the Clearwater National Forest.

Packer Meadows appears to have been a major junction and stopping point along the Lolo Trail. This is demonstrated by the fact that the Lewis and Clark Expedition took a wrong branch trail in 1805 and arrived near the present-day Powell Ranger Station on the Lochsa River. The party had to climb Wendover Ridge to again join up with the main Lolo Trail (Space 1970:9). On their return journey in 1806, the expedition followed the main trail east via Papoose Saddle and Rocky Point, crossing the Crooked Fork River and connecting with their original route approximately two miles south of Packer Meadows.

In 1831 John Work and his party camped three days at Packer Meadows, from October 9 to October 14. He described the area as providing good grasses for badly needed horse feed (Lewis and Phillips 1923:85).

No identifiable segments of original trail tread or related sites were found at Packer Meadows. This lack of evidence is due to several reasons. First, the area where the original trail enters the meadow has been impacted by the construction of Forest Service roads. Secondly, the meadows are snow-free for only a few months a year; the remainder of the time they are wet and boggy due to snow melt and the common summer thunder showers. This

condition may have provided excellent forage for livestock but greatly impeded the survey efforts of the archaeologists searching for trail remains or related sites.

Finally, Packer Meadows lies within a sub-alpine habitat type where Alpine fir, Douglas fir and lodgepole pine are the dominant timber species. Very few Ponderosa pine trees are present in the immediate area, and it is not surprising that no scarred trees are located in the area.

From Packer Meadows the Lolo Trail extends west approximately one hundred and twenty additional miles to its terminus on the Wieppe Prairie. Efforts are currently underway with the Clearwater National Forest to document and protect extant portions of the Lolo Trail in Idaho. Their study is basically an outgrowth of the one initiated in Montana by the Lolo National Forest. Once completed, the entire route of the Lolo Trail (as well as its deviations and associated satellite trails) and its associated prehistoric and historic sites should be well-documented and managed as a unique resource within the context of multiple use by the Lolo and Clearwater National Forests.

CHAPTER VI

OBSERVATIONS AND CONCLUSIONS

A. Observations

Several observations were made during the field work and analysis phases of the Lolo Trail study. Although these observations relate directly to the Lolo Trail in Montana, they may be useful to other researchers interested in identifying trail systems in western Montana or other mountainous regions.

The first observation is that the majority of trail segments 1, 2, 3 and 4 lie on the north bank of Lolo Creek and near, but not on, the crest of the ridge. This is substantiated by the nineteenth century maps (see Figures 3, 4, 5 and 6) as well as field work. Throughout this route, the terrain offered a southern exposure, which usually produces a Ponderosa pine habitat type. Overall vegetation is less dense in these areas, and a travel route would not become choked with deadfall or new growth as quickly as on more densely timbered north or west exposures. A south-facing aspect also remains snow-free longer in the fall and snow leaves much earlier in the spring in contrast to north-or west-facing slopes.

Secondly, the Lolo Trail is not located along the crest of major ridge systems (except in segment 5).

Generally, the trail runs high on the south-facing slopes but below the ridge crest and travels essentially from saddle to saddle at a constant grade between 3 - 5 percent. This route avoids the constant rise and fall in elevation of a ridge trail as well as the rugged terrain and dense vegetation encountered in the riparian zones along the major stream channel. Furthermore, this route avoids the additional distance of travelling in and out of the tributary drainages that flow into Lolo Creek, a practice that would have unnecessarily increased the actual distance covered. Basically, the route of the Lolo Trail is the most direct and the easiest in terms of topography and vegetation.

The third observation made during the study was that in many areas more than one trail was encountered. Oftentimes (particularly in section 3), several trail treads existed side by side or as much as fifty to one hundred feet apart. The trails observed appear to date from the same time period based upon amounts of compaction and vegetative regeneration in the trail tread. Furthermore, the trails follow the same general route and arrive at the same destination. The word "trail" in conjunction with the Lolo Trail may actually be a misnomer. More accurately, the Lolo Trail in sections (2, 3 and 5) should be viewed as a travel route consisting

of a series of trails that criss-crossed and intertwined and essentially formed a trail network. This phenomena is probably due to the fact that very little maintenance was performed when the trail received its heaviest use in the nineteenth century. Blowdown and deadfall were probably not removed but simply avoided. This practice would force travellers to "create" a new trail a short distance on either side of the obstructed pathway.

Finally, once it leaves the valley bottom near Woodman Meadows, the Lolo Trail traverses relatively steep, rugged timbered country. However, the trail returns to broad, natural meadow openings located within the main Lolo Creek drainage at approximately five-mile intervals. From east to west these meadows are located at Woodman Gulch, Graves Creek, Howard Creek, Martin Creek and Lolo Hot Springs and finally Packer Meadows (see Figure 7). These areas provided an abundance of forage, fresh water and gentle topography and were key areas to early travellers utilizing the Lolo Trail.

B. Conclusions

The objectives for my research on the Lolo Trail were twofold. The first objective was to research, through the use of historical documents and early maps, the general route and location of the Lolo Trail. This research

should indicate the types of prehistoric sites and related features one would expect to find associated with the trail. The second objective was to locate extant portions of the trail as well as to document those prehistoric and historic sites or features directly or indirectly associated with the use of the Lolo Trail.

The early nineteenth century maps indicated the Lolo Trail remained basically unchanged from 1805 until 1881 (see Figures 3, 4, 5 and 6). This observation was confirmed during field work. Although sometimes two or more distinct trail treads were encountered, their route and ultimate destination remained the same. No prehistoric or historic evidence of extensive use or of a travel route was located in other likely topographic areas such as the main Lolo Creek drainage or along the major interconnecting ridge systems. This evidence indicates to me that the currently documented route has been used since at least the late Protohistoric Period.

Intensive field work which supplemented information from the archival record substantiated the existence of a large portion of the twenty-eight miles of the Lolo Trail in Montana. Also, prehistoric and historic sites described generally (Graves Creek Meadows and Packer Meadows) and specifically (scarred trees and bent tree trail markers) can still be located. Additionally, pre-

historic and historic camp sites such as 24M0120, 24M0122 and 24M0133 are located in key areas when their placement is viewed in context to use of the Lolo Trail.

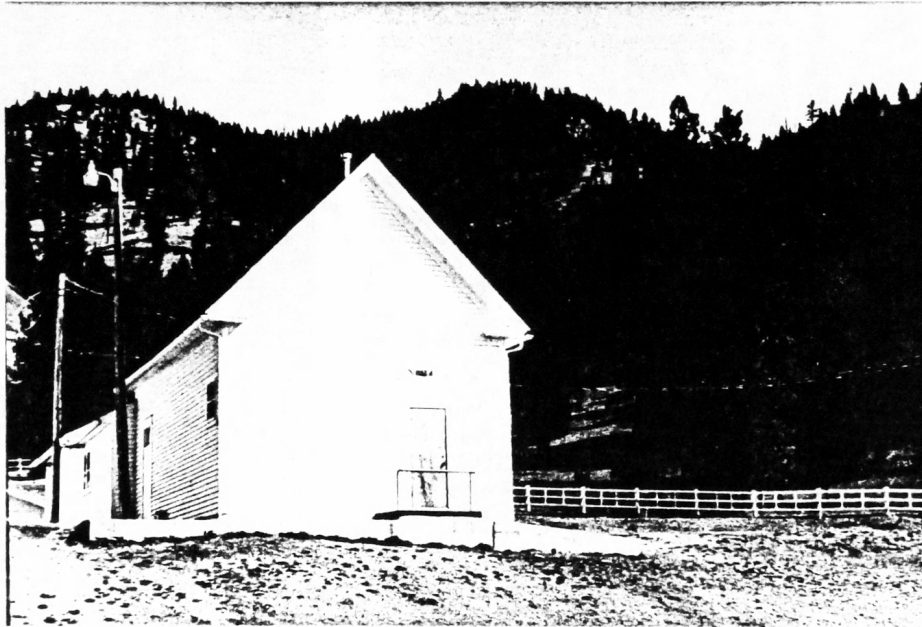
Finally, the general location for the trail and uses for the route appeared to have not changed drastically until the late nineteenth century. However, in the late 1800s, increased Euro-American settlement, coupled with shifting land use patterns and changing technologies, eventually ended the importance of the Lolo Trail as a critical travel route.



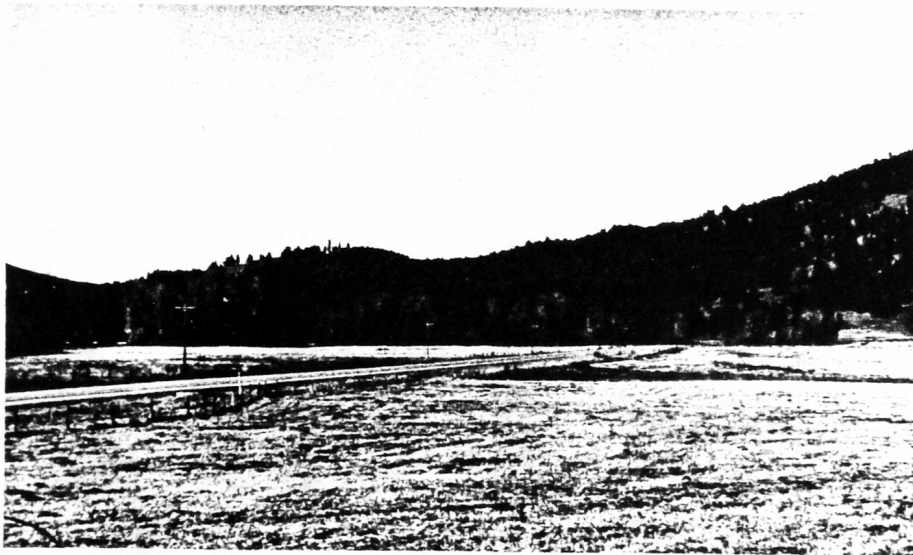
Photograph No. 1. Chickamin Mine (24M057) located within Section 1 of the Lolo Trail study area. The Lolo Trail early wagon road lies in the foreground to the right of the cabin.



Photograph No. 2. View to the east from Woodman Meadows, Section 1 of the Lolo Trail study area. Woodman School in Background.



Photograph No. 3. Woodman School (24MO126) viewed to the north. An early twentieth century school house still used by local residents. The Lolo Trail probably was directly behind the building.



Photograph No. 4. View looking west from Woodman Meadows, Section 1 of the Lolo Trail study area. Original trail tread can be found ascending the ridge and as it passes through the saddle in the center of the photograph.



Photograph No. 5.
Scarred Ponderosa
pine tree located
adjacent to Lolo
Trail in Section 2
of the study area.
Kirby Matthew in
photograph.



Photograph No. 6.
Scarred Ponderosa
pine tree (dead
snag), also located
in Section 2.
C.M. McLeod in
photograph.



Photograph No. 7.
Bent tree trail
marker located
adjacent to Lolo
Trail in Section 3
of the study area.
C.M. McLeod in
photograph.



Photograph No. 8.
Another scarred
Ponderosa pine tree
(dead snag), also
located in Section 3.
McLeod is standing
on existing trail
tread.



Photograph No. 9. Lolo Springs Ranger Station during the early 1930s, commonly known as Mud Creek Cabin (24M0119). The farthest structure in background is now located at Lolo Pass.



Photograph No. 10. Pack string leaving from Mud Creek to Powell Ranger Station in the late 1920s - early 1930s.

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