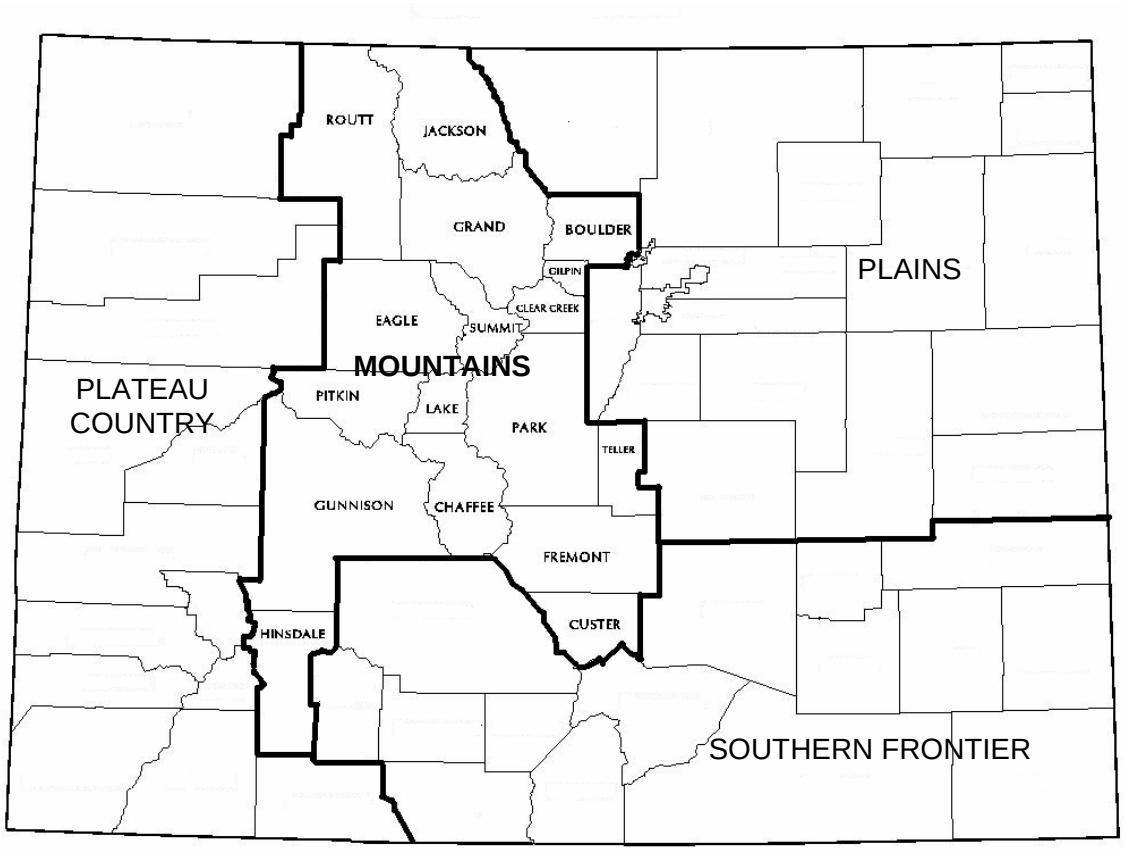
COLORADO MOUNTAINS HISTORIC CONTEXT



OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION
COLORADO HISTORICAL SOCIETY

COLORADO MOUNTAINS HISTORIC CONTEXT

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FACSIMILE EDITION 2006

OFFICE OF ARCHAEOLOGY
AND HISTORIC PRESERVATION
COLORADO HISTORICAL SOCIETY
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DENVER, CO 80203

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This is a facsimile edition of the original 1984 publication.
Text and graphics are those of the original edition.

PUBLICATIONS IN THE RESOURCE PROTECTION PLANNING PROCESS (RP3) CONTEXT SERIES

Title	Number
Colorado Plateau Country	606
Colorado Southern Frontier	607
Colorado Mountains	608
Colorado Plains	609
Colorado Engineering	610
Colorado Urbanization and Planning	611

These publications are available from the Office of Archaeology and Historic Preservation or online at:
http://www.coloradohistory-oahp.org/publications/contexts.htm

Since the completion of the RP3 context series in 1984, a number of new regional and thematic contexts have been developed that expand on this Colorado Mountains Historic Context document. These too are available from OAHP or online:

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The Architecture of Jules Jacques Benois Benedict in Colorado	647
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PREFACE

The Colorado Historical Society, Office of Archaeology and Historic Preservation, is proud to present this set of historic contexts for the State of Colorado. The set includes regional historic contexts and also topical contexts which summarize and evaluate the history of the state from the earliest historic events up through World War II.

The four regional historic contexts include the Plains, the Mountains, the Southern Frontier in southeast Colorado, and the Plateau Country along the western edge of the state. For each of these regions, themes are based on socio-economic units of development in the region. These are presented in rough chronological order, but they are not strictly chronological units. They reflect the historic themes of development in each region and the historic properties associated with them.

Four "topical" contexts were developed: Engineering, Urbanization and Planning, Historical Archaeology and Architecture. The Engineering context is oriented toward a history of engineering technology. This context is organized by topics including Water Resources, Power Resources, Transportation, Industry, Mining, Communications, and Waste Disposal. Within each topic are themes for the various specific resources types. For example, the themes within Power Resources include Petroleum and Shale Oil, Natural Gas, Uranium, Electric Power and Coal.

The Urbanization and Planning context was developed to focus attention on the significance of town planning, layout and transportation modes, the latter including the Stage/Wagon Era, Rail Era and Auto Era. The themes within this context address town form or town function and selected aspects of towns during the transportation eras. Additional themes are presented for the three major urban centers in the state including the Central Business Districts, Residential Development, and Rail/Industrial/Warehousing Districts during the transportation eras.

For all of the historic contexts, the presentation of data for each theme begins with a narrative of the history and description of the theme. A chronology, description of the location of historic properties, and a list of cultural resource types are presented. Then the quality and quantity of existing data about the theme are evaluated. This includes an assessment of the historical documentation, number and location of sites, data gaps, future needs and important resources. Research questions and a guide to evaluation standards for physical condition are presented. References and a map are included for each theme.

The Historical Archaeology context is based on ten temporal units identified as socio-politically significant periods spanning the history of the state. For each unit the quality and quantity of past historical archaeology work is presented and research recommendations and identification and dating problems are considered. In addition, the context presents a research framework for future historical archaeology work in the state.

The architectural context for the project is presented as "A Guide to Colorado Architecture." The guide standardizes the terminology used for architecture styles in Colorado and presents pictures and descriptions of these styles.

The overall purpose of these reports is to provide a framework to identify and record the historical resources in the state and to provide research direction to analyze the significance and preservation of these resources. The contexts can provide guidance for state and federally mandated cultural resource management, as well as direction for pure research. We anticipate that the recording and evaluation of historic sites will benefit by using the combined contexts.

The reports were produced by the Colorado Historical Society with the assistance of a grant from the Colorado Commission on Higher Education. The development of these reports is a direct outcome of the RP-3 (Resource Protection Planning Process) effort led by Office of Archaeology and Historic Preservation Archaeologist Judith Halasi who provided research, coordination and editing for the project.

The editorial content of this publication was supported by a grant-in-aid through the funding provisions of the National Historic Preservation Act of 1966, as amended, which is administered by the National Park Service, Department of the Interior. The content and opinions do not necessarily reflect the views or policies of the Department of the Interior nor does mention of trade names or referenced publications constitute endorsement or recommendation by the Department of the Interior.

We hope that these volumes will stimulate an awareness of and appreciation for the historical resources of Colorado.

Barbara Sudler
President
State Historic Preservation Officer

CONTENTS

MOUNTAINS

1. EARLY EXPLORATION AND THE FUR TRADE

NARRATIVE

The first Europeans came to the Colorado mountains over 200 years ago and from 1761 until 1859 the area was visited numerous times by those seeking the region's natural riches and to establish political dominace for their respective nations. During the early nineteenth century Colorado became a focal point for imperial rivalry between Spain, Great Britain and the United States. Exploration, the search for riches from the fur trade, and dominance of the region over other nations or hostile Indian tribes served to motivate those who risked the perils of a journey through the Colorado mountains.

The first recorded trip that skirted the area was Juan de Rivera's that left New Mexico in 1761. He searched for gold said to exist in the region, according to stories by Ute traders. Unsuccessful in his quest, he did pique Spanish interest in Colorado's mountains. Sporadically from 1765 until the Mexican Revolution (1821), explorers and military detachments traveled to Colorado to secure the borders of Spanish authority against interlopers, search for gold and trade or control Ute tribesmen. The furthest documented penetrations of Spanish power extended to include the Upper Arkansas Valley near Leadville. The Upper Arkansas through South Park to the front range was frequently patrolled by the Spanish army after 1800 to bar foreign traders and explorers. The situation was exacerbated by the lack of geographic knowledge concerning the western boundaries of the Louisiana Purchase (1803). The boundary question was finally resolved with the Adams-Onis Treaty of 1819.

Exploration of the Louisiana Purchase occurred between 1803 and 1819, sponsored by the American government, in order to investigate their purchase and validate their boundary claims. Once reports were made of the Lewis and Clark expedition (1803-1806) to the Pacific coast small numbers of Americans started looking to the Rocky Mountains as a source of wealth in the form of beaver pelts. By 1812 much of the region had been explored by fur trappers from the United States, the British North-West Company (English and French-Canadians) and New Mexico. Within a few years the major drainages and mountain parks were well known to these men.

Trading posts were established in the surrounding region about 1830. Antoine Robidoux established two posts, one near the present site of Delta, Colorado (Ft. Robidoux) and the other, Ft. Uinta, outside present day Colorado. These were opened to capitalize on trade with free trappers as well as the Ute. At the same time a line of trading posts also developed on the plains along the South Platte and Arkansas Rivers. Also Fort Davy Crockett in present-day Moffat County came into being. While none of these posts were within the study area their close proximiaty did encourage trappers to search the Arkansas, Grand, South Platte, Cache la Poudre and other streams for beaver. By 1840 the area's rivers were trapped out and the fur market

collapsed. Some mountain men later hired on as guides for American government and private expeditions.

Federal exploration of Colorado began soon after the return of Lewis and Clark when Zebulon Pike was dispatched in 1806 to explore the disputed southern boundary of Louisiana, the area between the Arkansas and Red Rivers. While Pike's trip was cut short by Spanish troops he nevertheless returned with much new information about the mountains of southern Colorado and almost all of the Upper Arkansas Valley. Diplomatic tensions between Spain and the United States caused a cessation of exploration until the Adams-Onis Treaty. In 1820 exploration in the mountain region began again with Major Stephen Long's trip during which he tried to locate the headwaters of the south Platte River, as well as discovering the mountain that today bears his name.

With publication of Long's pessimistic report about his western discoveries federal authorities paid little attention to the Colorado mountains until 1843 when the settlers' rush to Oregon necessitated new explorations for routes to the Pacific Northwest. Between then and 1845 John C. Fremont, "the Pathfiender," made two trips to the Pacific Coast looking for route alternatives to the Overland (Oregon) Trail. Much of his work centered in Colorado's mountains searching for usable passes. His reports provided the best geographic knowledge to date and provided a superior map of the region. He also discovered Steamboat Springs and cataloged the location of many minerals, such as coal in modern Routt County.

American victory in the Mexican War and discovery of gold in California, both in 1848, led to new federal explorations for military routes to the Pacific Coast. In that year and 1853 Fremont again led parties into the mountains of southwestern Colorado, neither of which succeeded in finding a usable route. During the later year Captain John W. Gunnison was also in that area looking for a rail route to California. Gunnison was killed by Paiutes in Utah and Lt. Beckworth, his replacement, wrote a report detailing the harsh winters and impractical grades for a railroad across the Colorado mountains. With tensions over slavery rising in Congress no new federal explorations were undertaken until after the Civil War. However, some U.S. Army parties did cross the Colorado Mountains during the Mormon War of 1857. They recorded their difficulties in crossing the passes and using the mountain trails. Topography kept central Colorado from becoming an early transcontinental route, especially with South Pass only a few days ride north.

Private explorers and sportsmen found the Rockies to be a delightful place to visit during the 1840s and 1850s. Most notable of these were Lord St. George Gore, an English sportsman and adventurer and Dr. F.A. Wislizenus, German medical practioner and scientist. Gore's hunting party included mountain men, artists, camp followers and others. They left an extensive number of paintings and drawings of the adventure. On the other hand Wislizenus was less impressed with his journey, as his diaries indicate. Expeditions to Colorado's mountains continued until 1859 when the gold rush started. The rush radically changed the nature and purpose of exploration in the high country.

CHRONOLOGY

1761-1820	Spanish exploration and influence predominant.
1761-1765	deRivera expedition to Delta.
1803-1820	Spanish domiance in region during claim disputes with U.S. government.
1807	Pike exploration ends in capture by Spanish.
1812-1820	Fur trappers/traders travel throughout Colorado mountains.
1819	Adams-Onis Treaty establishes US-Spanish border.
1820	Long expedition.
1820-1840	Era of fur trapping expands, peripheral rendezvous and trading posts established.
1821	Mexican Revolution.
1840s	Decline of beaver fur prices and trade.
1843-1845	Fremont's first two expeditions explore mountains. Land rush to Oregon.
1848	Mexican War ends, all of Colorado becomes American Territory.
	Fremont's disasterous trip through southern Colorado.
1853	Fremont's last trip to Colorado.
	Gunnison expedition for a Pacific Railroad.
1857-1858	Military activity for Mormon War.
1859	First Colorado gold rush, end of phase one of mountain exploration.

LOCATION

Presently no known cultural resources directly attributed to the fur trade or early exploration exist within the region. This is because of the transitory nature of the activities. However, on the region's periphery, along the major watercourses, trading post remains, ruins, sites and reconstructions can be found.

CULTURAL RESOURCE TYPES

Sites Include: Campsites, caches, trails.

Structures Include: Forts.

Materials Include: Firearms, trade goods, saddlery of the early nineteenth century.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

The intense professional and popular interest generated by the early explorers and mountain men has led to a vast number of publications about the era throughout the West. Original records of most Spanish official expeditions have been translated and annotated in English. As well many books about facets of Spanish Borderlands history such as Bannon's Spanish Borderlands Frontier overview have been published.

While the majority of mountain men were illiterate, records of their adventures have been written based on diaries and accounts of others as well as assisted (told to) autobiographies. LeRoy Hafen's ten volume study of the mountain men is the most inclusive of all works and serves as a sound general reference. Another source of information, containing copies of many original documents, is Rueben G. Thwaites' Early Western Travels (32 volumes).

Documentation of federally sponsored activities and explorations is extant in many forms from original notebooks and diaries to edited and published journals, both contemporary and modern. These help in the reconstruction of routes provided the researcher is familiar with the region's geography and archaic placenames. The best general sources on this period are William H. Goetzmann's Army Exploration in the American West and Exploration and Empire; The Explorer and Scientist in the Winning of the West. These works contain detailed maps and excellent bibliographies as well as providing a contextual framework for study of the period. While the written documentation of Colorado mountain exploration and fur trapping is extensive very little on-the-ground evidence remains to mark the passing of these men because of the transitory nature of their activities.

Number/Condition

The data are insufficient to determine the number and types of resources that once existed or may have existed. The exception to this is the number condition and location of trading posts which is well documented, although these resources are wholly outside the mountain region. Other resources associated with the era of trade and exploration such as campsites and trails left no permanent changes on the land. Portions of the explorers trails have been recorded in the State site files. These are generally estimations of the explorers routes based on the explorers descriptions of the routes. Presently recorded archaeological evidence, such as campfire rings, often provides little new information because most Euro-Americans adopted Native-American methods of wilderness living, making it nearly impossible to ascertain even which group (race) used a given site. Further, Indian trails often were followed by trappers and explorers and since many of these followed watercourses and other natural travel routes they were adopted by later residents for travel, obliterating evidences of earlier use.

Data Gaps

*Representative campsite of a trapping party.

*Representative campsite of an exploration party.

*Clearly discernable trail or marker along the path of a known (documented) exploration party.

*Representative cache of a trapping or exploration party.

Future Needs

Surveys conducted specifically to find on-the-ground evidences of these early Euro-Americans in Colorado should be given low priority due to the extensive documentary evidence available about the era and the low possibility of finding clearly distinguishable sites within the region. Such an undertaking would require the special skills of both the historian and historic archaeologist. However, as cultural resource surveys are conducted in the region, the investigators should be aware of the possible occurrence of such resources.

Important Resources

Because of the lack of known and probable sites any site is significant. Activities of the explorers and mountain men are important because they as well as gold discoveries stimulated American interest in the West and Colorado leading to its settlement, statehood and continued development. Also, the explorers, as representatives of their various governments during a period when the region's international ownership was in doubt, played a significant role in these diplomatic struggles. Any site that would substantiate these roles would serve to verify existing documentation and interpretations.

RESEARCH QUESTIONS

1. What resources, if any, remain that provide information on the exploration of Colorado?

2. What resources, if any, substantiate the thesis that explorers were programmed by their cultural heritage to locate certain types of things in the wilderness and how were their discoveries or interpretations of them affected by that same background?

3. Can cultural resources lead to re-interpretations of the business of fur trapping and trading, specifically day-to-day camp life and techniques of trapping, skinning, preparing and storing pelts?

PHYSICAL CONDITIONS

Cache, campsite: Any *in situ* site that shows no or minimal surface disturbance is considered important for research and interpretative purposes.

Fort: Enough of the structure should be left to understand its functions or should not have experienced surface disturbance so any possible archaeological data retains integrity.

Trail: Ability to clearly recognize the trail from physical evidence and from existing historical documentation.

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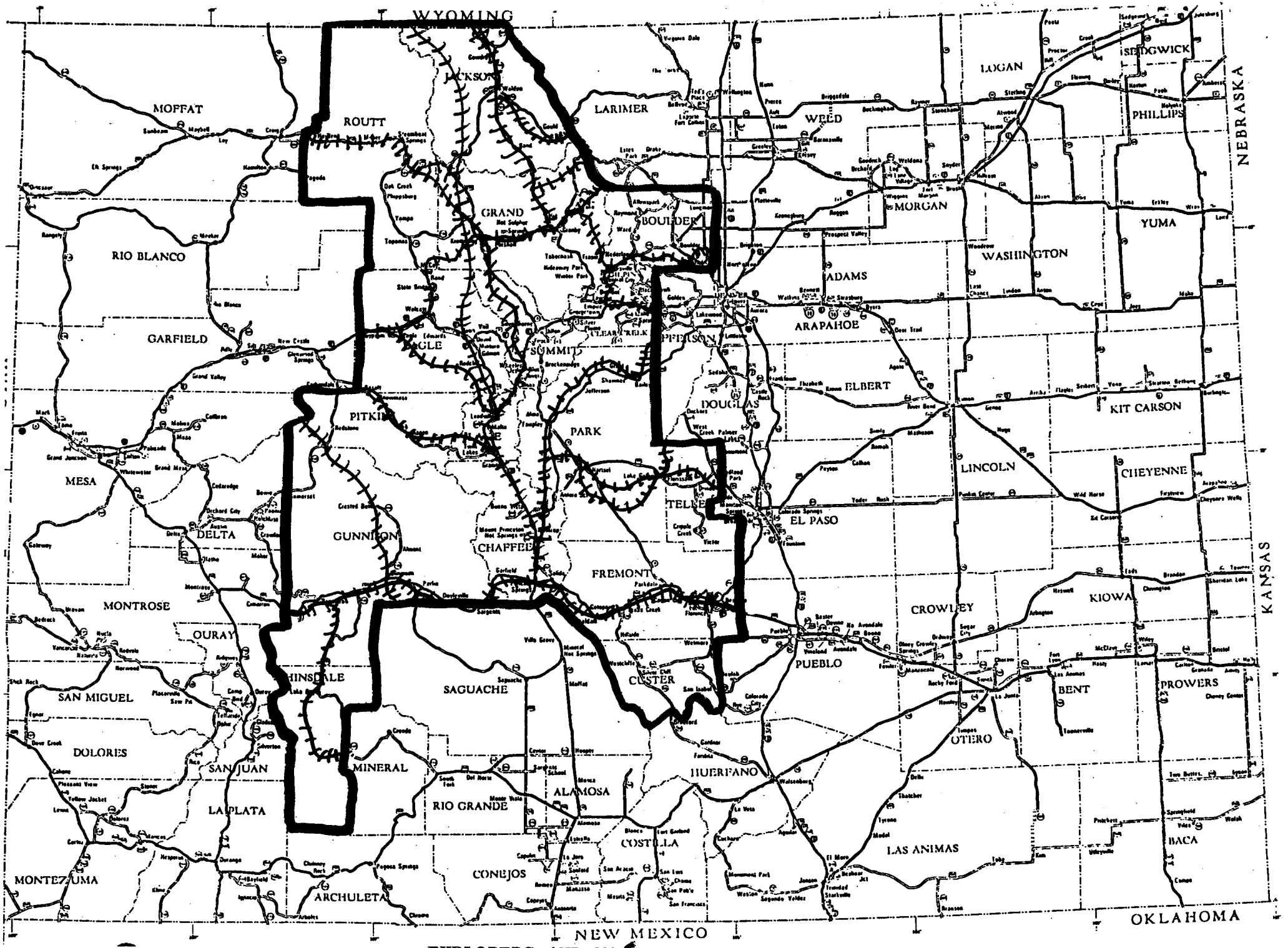

EXPLORERS AND MOUNTAIN MEN

2. POST-1859 EXPLORATION

NARRATIVE

During the period 1859 to 1925 Colorado's mountains were visited and revisited by dozens of explorers. Those that came after the Civil War were highly trained scientists that observed and cataloged great quantities of information about the region. Their work had great impacts on what uses much of the land was put to and their findings served as a blueprint for those who followed and peopled the area.

The Pacific Railroad Surveys of 1853 marked the end of early federal explorers' interest in Colorado. U. S. Army expeditions through the area to fight the Morman War and private travelers who criss-crossed the mountains replaced the government scientists and mappers. This lack of organized federal effort continued until 1865 and the Civil War's end as national attention was directed to that struggle. In the interim discoveries of gold along the front range in 1858 and 1859 led to a rush of prospectors. Many of these goldseekers arrived too late to make claims in areas such as Gilpin, Clear Creek or Boulder Counties. Not to be denied they fanned out through the mountains of Colorado in search of precious metals.

One of the most famous of these prospectors was Captain Richard Sopris. During the Summer of 1860 he led a party of fourteen adventurers across South Park thence to the Blue River. After following the Blue River Sopris's party entered the Roaring Fork Valley, discovering and naming Mt. Sopris, Colorado and then travelled west to the present site of Glenwood Springs. From there the group crossed into the White River drainage and followed that river to the future site of Meeker, Colorado. Sopris then retraced Gunnison's route of 1853 to the front range and back to Denver. The news of their return made much additional information readily available to other gold seekers who continued to search the mountains for riches throughout the decade. These people soon found others in the area looking for scientific information.

Once the Civil War was concluded the federal government turned its attention to exploration of the Rocky Mountain West once again. During the period members of the U. S. Army and the newly formed United States Geologic and Geographic Survey (USGS) spent much time in Colorado's mountains cataloging and mapping the land for future settlement. The Army's exploration focused on finding new transport routes and locations for posts.

The initial USGS survey in Colorado was conducted by John Wesley Powell in 1868 as part of his monumental effort at exploring the entire Colorado River and its tributaries. His expedition assembled in Middle Park after visiting Bergen Park and the gold mines of Central City. During 1868 Powell's party followed the Colorado (Grand) River and other Colorado rivers ending the season's work at the junction of the Grand and Green Rivers. Powell's efforts led to a greater national understanding of both the Colorado river system and environmental conditions of the arid west. While Powell was in the

field Captain Sam Adams stepped forward and claimed to have traced the Colorado River from its source to mouth. Later his statements were disproven.

The late 1860s brought three other explorers to Colorado's mountains. During the period from 1872 to 1873 Clarence King, noted California naturalist was in Colorado as part of the 40th Parallel Survey from the Pacific to the Continental Divide. King and his party were in Colorado's mountains during 1871, 1872 and 1873. His reports added much to the understanding of the region and helped forewarn future settlers of difficulties they might expect. During King's last year in Colorado John Parsons and Sylvester Richardson explored Gunnison county hoping to attract settlers there. The other explorer was J. B. Wheeler of the U. S. Army. The Wheeler expedition was interested in new routes and post sites, primarily in southwestern Colorado and the mountains of that area. His Colorado work was primarily carried out during 1873 in the San Juan and Elk Mountains. Little came of his efforts and Wheeler's survey marked the end of Army exploration in Colorado's high country.

As military interest in exploration waned, the USGS began new and more intensive efforts in Colorado's high country. These efforts were led by Ferninand Vandiveer Hayden who earlier had done some preliminary work along the front range from Denver to New Mexico. As part of the newly formed USGS, Hayden's surveys of Colorado seemed not only to lay out a plan for future economic development but also gave the USGS a great success early in its career. From 1873 until 1876 Hayden's people explored, mapped and cataloged the flora and fauna of Colorado's mountains and western plateau. They assembled and published volumes about the region as well as an early landmark book: an atlas of Colorado geology. This readily available information about thousands of new discoveries was used by many promoters and settlers of the region.

After Hayden's parties left Colorado they were followed by other professional and amateur scientists who also made many significant finds in the region including the dinosaur pits at Florissant. These discoveries have greatly increased present knowledge about the earth's past. Others who mapped Colorado's Mountains were cadastral surveyors applying the standard Township, Range, and grid system so land could be transferred to private ownership. Also after the turn of the twentieth century, as the move for conservation spread, the USGS sent more explorers into the field to determine and locate certain types of mineral-bearking lands for future withdrawal from private entry, primarily coal reserves. The final overview surveys conducted by the USGS occurred in 1925, marking the end of this exploration era.

CHRONOLOGY

1859	First Colorado Gold Rush.
1860	Prospectors, such as Richard Sopris, explore Colorado's western mountains, most find no gold.
1860's	Continued mineral prospecting with mixed success.

1868 J. S. Powell exploration of Grand (Colorado) River and its tributaries.

1871-1873 King Surveys of 40th Parallel.

1873 Wheeler Surveys of Colorado mountains, John Parsons and Sylvester Richardson explore Gunnison County.

1873-1876 Hayden Surveys of Colorado's mountains and Western Slope.

1870-1930 Private scientific survey and cadastral survey of the region.

1900-1925 USGS mineral explorations to reserve federal lands and minerals.

LOCATION

Presently no known cultural resources directly attributed to the post-Civil War exploration of Colorado are recorded within the region except the Florissant Fossil Beds, presently a National Monument. The transitory nature of most explorers' activities precluded construction of permanent structures for shelter since most of the parties were equipped with tents and other portable camping gear as well as processed food stuffs prevalent during the late nineteenth and early twentieth centuries. Hayden's party and others piled rocks into small (five to seven foot high) piles for survey and triangulation markers and photos of these exist (USGS Library, Golden). The original markers may someday be found and recorded. Other objects that may have been left include tools, mountain climbing equipment, mule packs and scientific equipment. This study discounts "brass cap" section markers placed by cadastral surveyors as required by the General Land Office.

CULTURAL RESOURCE TYPES

Sites Include: Campsites, Caches, Fossil Bed/Quarry.

Structures Include: Survey markers.

Materials Include: Camp tools, surveying equipment, saddlery of the late nineteenth century.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

The role of explorers in the mountains during the years after Colorado's first gold rush has not been investigated to the extent that many other topics have been. Nevertheless, some work has been completed and the explorers' reports have been published. Foremost of the government published reports are F. V. Hayden's Ninth and Tenth Annual Reports of the Survey of the Territories (1877 and 1878) and his Atlas of Colorado Geology and The Great West. John Wesley Powell's works, especially The Exploration of the Colorado River add to the body of literature of late nineteenth century exexploration. In addition William Goetzmann's Exploration and Empire; The Explorer and Scientist in the Winning of the West gives valuable interpreta-

tions of the period. Federal and private explorations after 1900 have yet to be adequately explained by historians, but the reports of these activities are readily available at libraries that maintain extensive collections of government documents. Norlin Library at the University of Colorado has an extensive collection of these reports. The government documents are referenced to very specific geographic locations such as the Axial Quadrangle, Snowmass Mountain area, Red Cliffe and the like. Most of these hundreds of reports were completed by 1940 and indexed in Government Printing Office indexes, usually by county and Department of Interior. The other major source of information about the post 1859 explorers is the U. S. Geologic Survey library at Golden, Colorado. This depository not only maintains copies of the reports and some of the field notes but also has an extensive photo collection dating to the 1870s. The documentary information extant should allow for easy tracing of routes and areas used by these explorers.

Number/Condition

The present data base is insufficient to determine the number and types of resources that once existed or may have existed. The only known resources associated with this theme are the sites of natural or famous discoveries such as Marshall Pass, the Mount of the Holy Cross, and the Florissant fossils in the mountain region and the Lindenmeier site and Cliff Dwelling ruins which are not in the region. The transitory nature of exploration activities meant that resources such as campsites, trails and survey markers left no permanent changes on the land. Things such as campfire rings may provide little new information because of the large number of these sites and the difficulties of accurately associating them with a specific explorer. Also, after the mountain region became more settled many of the parties used hotels as their bases of operation and left no marks on the land. The photographic record of exploration activities is extensive and should be used to help validate the recording of such sites.

The location of portions of some of the explorers trails have been recorded in the state inventory records. These present approximate routes of the explorers based on the exploration accounts.

Data Gaps

*Representative campsite of an exploring party.

*Clearly discernable trail or marker along the path of a documented exploration party, other than those of archaeological or paleontological parties.

*Clearly discernable survey marker built by one of the survey parties.

Future Needs

In order to document the routes of post 1859 exploration parties specialized surveys would need to be conducted to find on-the-ground evidences of the late nineteenth and early twentieth century explorers of Colorado's mountains.

These efforts should be given low priority due to the extensive documentary evidence available about the era and the low possibility of finding clearly distinguishable sites, other than those famous ones such as the Mt. of the Holy Cross or Marshall Pass, within the region. Such an undertaking would require the special skills of both the historian and historic archaeologist.

Important Resources

Because of the lack of known sites and probable sites the location of any documented site associated with this theme would be significant. The identification of campsites, trails and other items associated with the exploration trips would serve to verify existing documentation and interpretations of post-1859 exploration. Activities of the post-1859 explorers are important since they laid a blueprint for future development throughout much of the area and greatly influenced the later land use patterns the Aspen silver boom of the 1880s to present day federal coal leasing and forestry.

RESEARCH QUESTIONS

1. What resources, if any, remain to provide information on the exploration of Colorado after 1859?

2. What resources, if any, substantiate the thesis that explorers were programmed by their cultural heritage to locate certain things in the wilderness and how were their discoveries or interpretations of them affected by that same background?

3. Can cultural resources aid in the understanding of the impacts post-1859 explorers had on the development of and natural resource utilization in the Colorado mountains?

4. Can comparative photographic studies be carried out using the images made by the explorers and present photos to document changes on the land? Can such a study help in future cultural resource and land use planning?

PHYSICAL CONDITION

Cache, campsite: Any in situ site that shows no or minimal surface disturbance is considered important for research and interpretative purposes.

Fossil beds: Any in situ or excavated site may be considered important if it has or will yield scientific information.

Survey markers: Any survey marker (Stone tower) that can be verified from historical documentation as a marker for one of the many post-1859 expeditions to the Colorado mountains that remains intact.

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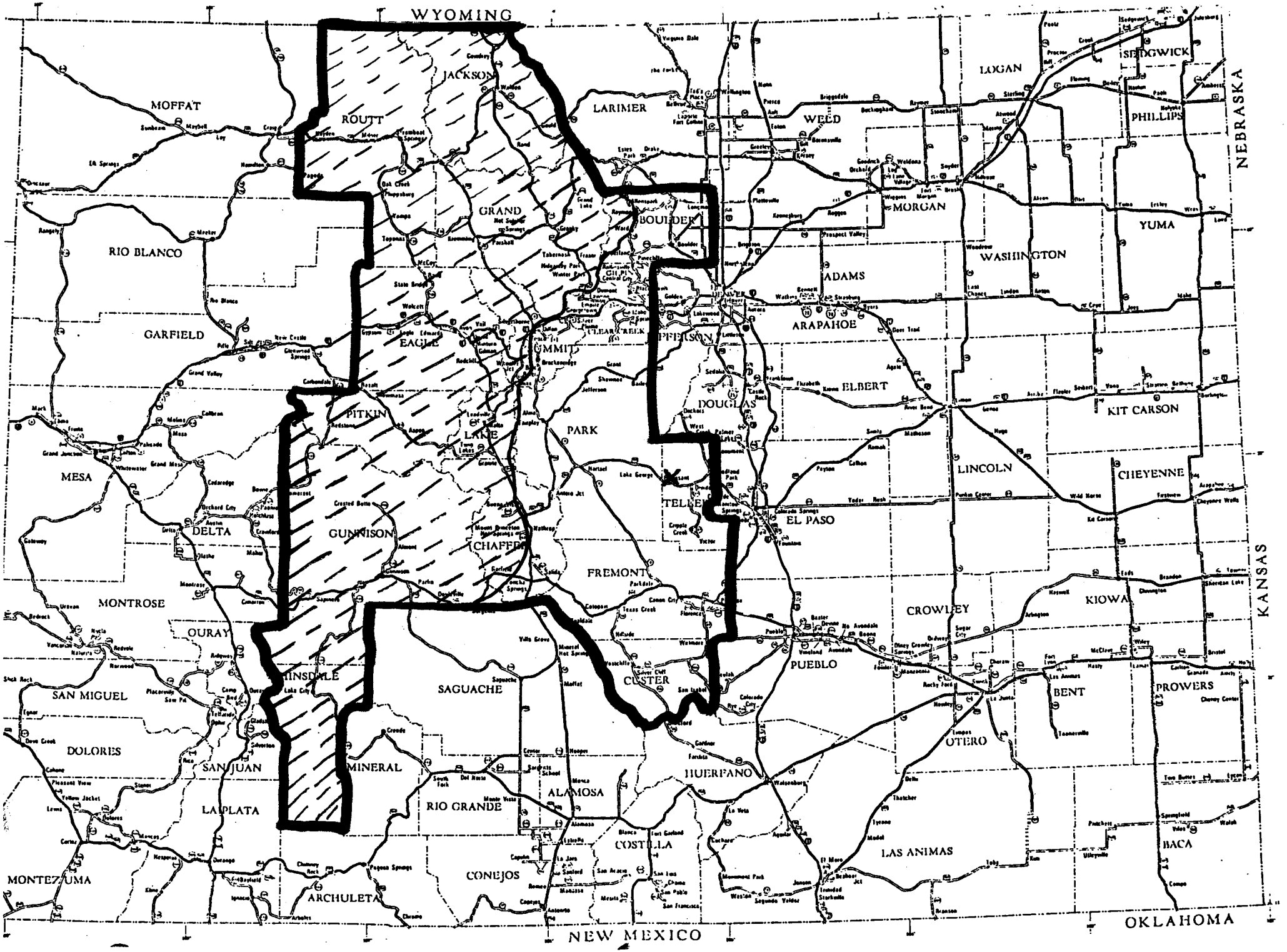

POST 1850 EXPLORATION

3. INDIAN--EURO-AMERICAN CONTACT AND CONFLICT

NARRATIVE

The Ute, Colorado's mountain natives, were affected by European presence in the Southwest by 1688, nearly a half century before Spaniards actually entered the Colorado high country. Early cultural contacts came from trade once the Europeans had made contact with traditional Ute commercial partners, particularly the Pueblos of New Mexico. The late seventeenth century witnessed a flourishing trade develop between Spaniards and Utes who captured Digger Indians in Utah for slaves and took them to Taos and other New Mexican commercial centers. The Ute exchanged slaves, deer hides and dried meat for horses and firearms, two items that radically altered Ute lifeways.

This process continued until the 1710s when Ute raiders attacked Taos. Earlier such episodes had been ignored or overlooked by Spanish authorities but by 1719 the officials decided to send an expedition into the Colorado mountains to punish the Indians. The expedition led by Don Antonio de Valverde penetrated the Colorado mountains as far north as the Upper Arkansas Valley. Although this expedition failed, within a few years the two antagonists entered into an agreement that guaranteed safe passage for Spanish traders and explorers on the Western Slope and through other Ute lands. From then until 1860 the Ute watched peacefully as Euro-Americans traveled extensively in the Colorado high country to trap, trade and explore.

On the Colorado plains Cheyenne and Arapaho peoples had secured their positions by 1820 and they made hunting trips into the mountains, Ute homelands. The Ute replied by buffalo hunting and warring on the high plains people. Much of the front range north of present-day Pueblo became a no-mans'-land and buffer zone between the groups. Pre-occuppied with these rivalries the Ute were not concerned by Anglo-Americans until 1860. Furthermore, the early whites who came into the mountains did not stay or conflict with Ute lifestyles, except by introducing new trade goods, alcohol, and horses.

After the Colorado gold rush the situation changed between Ute tribesmen and Euro-American settlers. Ute land occupancy of the Mountains region had been recognized in 1849 by the Calhoun Treaty with the U. S. Government. It assured the mountain people continued use of their "customary" lands. The next negotiations began a pattern of Ute land cessions. The first of these treaties was the Evans Treaty that established definite boundaries to their domain. Five years later in 1868, another treaty, the Hunt Treaty, established two agencies for the Ute, the Los Pinos and White River Agencies, and reduced Indian lands to roughly the western one-third of Colorado Territory. At the treaty negociations both in 1863 and 1868 Ouray was the chief Ute spokesman and became recognized by the Anglo-Americans as the tribe's leader. These treaties were a result of increased pressures on the Ute from the gold

mining frontier's expansion.

The 1860s and 1870s were trying times for the Ute as white prospectors and miners continued their search for gold and silver in Colorado's mountains. By 1871 mineral discoveries in the San Juans led to demands from Anglo-Coloradans for Ute removal. Two years later Felix Brunot and Ouray reached an agreement ceeding much of that mining area to the U. S. government. At the same time President U. S. Grant launched his "Peace Policy" to acculturate all western natives to Anglo-American lifeways by training and equipping them for farming. These pressures on Ute culture as well as new mining rushes to Leadville, the Eagle and Roaring Fork Valleys led to Ute dissatisfaction. The process culminated with the Meeker Massacre at the White River Agency and Ute removal from all Colorado mountains by the end of 1881. (See Plateau theme: Ute--Euro-American Contact)

Anglo-American reaction to the Ute presence in Colorado before 1881 was varied. Some Coloradans, usually those in secure areas such as Denver, felt help should be given to the natives. Others, especially those in frontier mining camps, feared an uprising. Reports of Ute raids on ranches in North Park triggered panics throughout the mountains. At the newly founded town of Red Cliffe rumors of Ute hostility led to the erection of Fort Arnett at the confluence of Turkey Creek and the Eagle River and it caused the near abandonment of the newly founded town of Ute City, later named Aspen. Even after Indian removal talk of possible Ute hostilities caused panic for area residents.

From 1881 until 1890 the mountain and Western Slope Anglo-American population experienced many Ute scares and raids on livestock. On one occasion, in 1887, local militia units moblized in order to stop the raids by the Ute group led by Colorow. Garfield County officials called for troops and citizens from throughout the region responded. Finally at Cedar Hill, near Rifle, the militia caught up with Colorow. After a brief skimish he and his people were escorted to their reservation in Utah. This was the last major outbreak and Western Coloradans finally relaxed with Colorow the infamous renegade on the reservation. The 1880s outbreaks marked the end of Ute influence and presence in the Colorado mountains.

CHRONOLOGY

1600-1881	Utes dominate Colorado mountains.
1650-1700	Ute trade with Spaniards led to cultural interchange.
1710s	Ute raids on Spanish New Mexican settlements lead to punitive expedition led by Valverde.
1720	Alliances reached between Spain and Utes.
1800-1820	Cheyenne and Arapaho take up homelands on plains of northeastern Colorado and begin raids/hunting trips into mountains. Inter-tribal conflict with Ute continues until 1860s.

1810-1860	Utes accept and trade with Anglo-American mountain men.
1849	Calhoun Treaty--first treaty between Utes and U. S. government.
1860s	Prospectors into mountains in search of gold and silver lead to new pressures on the Ute.
1863	Evans Treaty, Ouray emerges as Ute leader.
1868	Hunt Treaty, Ute lands given definite borders and agencies established.
1870s	San Juan mining rush.
1873	Ute cession of San Juans in Brunot Treaty.
1879	Meeker Massacre leads to calls for Ute Removal.
1881	Utes removed from mountains to Utah.
1887	Cedar Hill skirmish--last Ute outbreak to affect Colorado mountains and end of their influence in the region.

LOCATION

The entire region is known to be the traditional territory of the Utes. The mountains also experienced occasional forays by other tribes. Therefore evidence of historic Indian occupation might be expected to occur throughout the mountain region. However, few sites are known, possibly because of the semi-nomadic Ute lifestyle and the temporary nature of their shelters as well as their warmaking and hunting techniques. The sites associated with Ute occupation of the region may include trails (many trails throughout Colorado have been called the "Old Ute Trail"), habitation sites (wickiups or tipis), hot springs, burial sites, battle sites, and medicine grounds. Some early historic observers reported Ute "contact" sites (location of Anglo and Indian trade), medicine grounds, use of hot springs, and burial sites in the region. Additional sites include the reported historic skirmishes or Ango-Indian conflicts and the erection of a military fort at the confluence of Turkey Creek and the Eagle River. Location and accurate identification of historic Indian sites, other than through historical documentation, will have to rely on archaeological techniques.

CULTURAL RESOURCE TYPES

Sites Include: Battle sites, campsites, chipping stations, hunting sites, lithic scatters, Lodge/Tipi foundations, medicine/Sacred Grounds, Burial sites, trails and trade routes, hot springs.

Structures Include: Fortifications.

Districts Include: Sacred grounds and burial grounds.

Materials Include: Iron and stone implements, trade items.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

Presently a great number of sources are available about the Ute people of Colorado. Foremost for scholarship and readability are J. Donald Hughes, American Indians in Colorado, 1977 and Omer C. Stewart's "Ute Indians: Before and After White Contact," Utah Historical Quarterly, 1966. Additionally much of Stewart's research material has become available in archaeological and anthropoligical reports and a Ute bibliography. Of special fascination for writers has been the Meeker massacre and the events leading up to it. Two of the most comprehensive works are Marshall Sprague's Massacre, The Tragedy at White River and Robert Emmitt's The Last War Trail; The Utes and the Settlement of Colorado. Other sources include National Archives records of the Bureau of Indian Affairs, Reports and Minutes of the treaty commissions and other documents. For the 1860s, 1870s and 1880s Colorado's contemporary newspapers give a very good account of Anglo-American feelings and impressions about the Ute as do other writings of the times such as Josephine Meeker's account, The Ute Massacre. Articles in The Colorado Magazine, The Trail and Harpers as well as theses done by students from the University of of Colorado, Colorado State Teachers' College, Denver Universtity and other colleges present another pool of ready information about the Ute or interracial conflicts in the Colorado mountains.

Number/Condition

The present data base is insufficiently refined to determine the number and condition of resources attributable to Ute presence in Colorado's mountains. Although there are hundreds of recorded archaeological Indian sites in the region it is impossible to assign many of them a definite cutural affiliation until archaeologists do further study. Few if any of these sites have been identified as historic Ute or historic Indian.

As discussed above it is known that early historic observers reported skirmishes or contacts with Utes and Ute use of various sites such as hot springs, burial or medicine grounds. This information has not been compiled and is not available in the state site files to document the number and location of such sites.

Additionally, the sites of hot springs historically identified as having been used by the Ute Indians are known. At these sites, including Manitou Springs and Glenwood Springs, the Ute association has been advertized as a result of the tourist attraction of these springs.

Condition of the resources will generally be either disturbed or buried in an archaeological context. Identification of the sites, other than through historical doucmentation, will have to rely on archaeological techniques.

Data Gaps

*Dating of many archaeological sites to determine an accurate time-frame for Ute activity of various types.

*Early or representative example of Ute—Euro-American commercial contact site within the region.

*Representative example of Anglo-American fortifications for protection from Ute uprisings circa 1870.

*Identification and location of Ute sites from early historic observations.

Future Needs

The primary goal should be to effectively analyze the existing state site files to determine whether there are recorded Ute sites within the study area. Future needs can then be more accurately ascertained. Once this is accomplished it should be compared to documentary evidence including early accounts of Ute sites. At that time an evaluation of the kind of survey or research needed could be assessed.

Important Resources

Sites of traditional or documented historic Ute use and occupation are important. Sites related to important historic events such as sites of Indian/Anglo skirmishes or battles or with important people such as Colorow or Ouray are important. Resources that help to explain cultural adaptation are also significant, especially to document Euro-American affect on the lifeways. In addition, these sites may have significance for yielding important archaeological information about the historic tribe. All sites should therefore be also evaluated according to the archaeological research priorities established for the historic Indians in the region (refer to the archaeological historic tribes research design for the mountain region). The significance of these sites in terms of the National Register will be affected by the integrity of the site. This should be determined on a site by site basis.

RESEARCH QUESTIONS

1. Can a comprehensive understanding of Euro-Ute contact and impacts on Ute lifeways be established?

2. Can new evidence be found to further substantiate present explanations of events such as the Meeker Massacre?

3. Can a direct correlation between Ute and present or historic transportation routes be made?

4. To what degree did Ute presence influence settlement and prospecting patterns and what evidence exists to substantiate this influence.

PHYSICAL CONDITION

None of the sites associated with this theme have continued in use or have been maintained from their original use. Therefore all will be effected by deteriorated physical condition or obliteration from later use. If a site

can be located and identified from historic documentation and has significance through association with important events or people, the site may still retain its importance regardless of deteriorated condition. If a site is important for archaeological information it must retain sufficient integrity of location and deposit to be able to yield that information. Integrity for these sites will have to be determined on a site by site basis.

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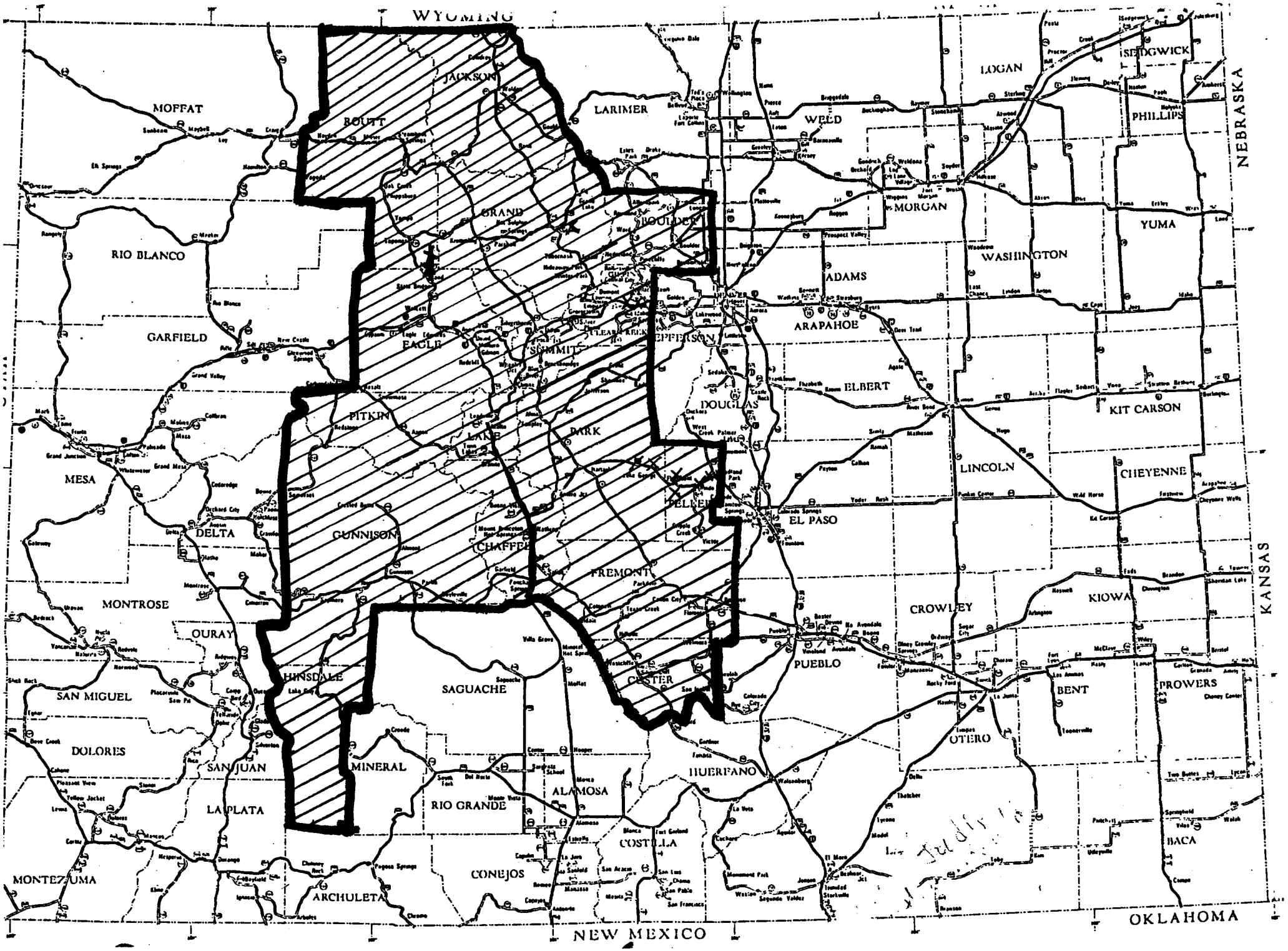

INDIAN--EURO-AMERICAN CONTACT AND CONFLICT

4. THE GOLD RUSH AND THE MINING FRONTIER, 1858-1868

NARRATIVE

The earliest report of precious metals in Colorado's mountains dates from the first decade of the 18th century when New Mexican traders reported finding gold nuggets in the area. Almost forty years later William Gilpin found traces of gold while accompanying John C. Fremont's expedition. From the early 1840s until 1858, reports about the yellow metal in Colorado high country streams became more numerous. In 1858, William Green Russell and a party from Georgia joined by Cherokee Indians in Oklahoma (Indian Territory), having found gold in 1850 on their way to California, decided to prospect in Colorado. They finally found success along Dry Creek near the South Platte River and Cherry Creek. News quickly spread and by the next spring tens of thousands of people headed west.

During the six-month time lag between Russell's discoveries and the 1859 gold rush, other early prospectors investigated Boulder, Clear and other creeks along the South Platte River. In each of these areas gold was discovered and the mining frontier expanded. The Jackson and Gregory diggings on the branches of Clear Creek added vitality to Colorado in 1859 that was badly needed as many of the early gold rushers began returning to the Midwest proclaiming Colorado to be a hoax. The Jackson, Gregory and Gold Hill successes also encouraged others to prospect deeper into the mountains. Within a few years gold had been found in South Park, Gunnison County, the San Juans, around Breckenridge at Hahn's Peak, California Gulch (Leadville), and elsewhere in the high country.

All this prospecting and the discoveries led to many changes on the land as did the mining techniques employed. The miners of this early era used traditional placer methods which were labor intensive but required little capital or skill. Gravels were dug from streambeds and glory holes near the watercourses and then washed with water. Gold, being heavier than the surrounding material, settled to the bottom of the washing vessel and could then be recovered by hand or by using quicksilver (mercury). Tools ranged from a pick, shovel and pan to complex hydraulic mining plants that needed reservoirs, water carrying lines and recovery systems. Most common were sluices, rockers, long toms and arrastras. All these were technologically primative and relatively inexpensive.

The people who constructed and operated these implements were by and large not professional miners or geologists. Rather, they came from midwestern farms and eastern cities. A few had experience in California's gold fields. These early Coloradans came to the high country for a variety of reasons. All, of course, felt they might strike it rich. Beyond that, most of the young men came looking for a new start following the Panic of 1857. Foreseeing little chance of being able to buy land, many viewed the

Pike's Peak gold fields as a route to enough riches to purchase a farm. Others sought adventure in the West, especially those who had been too young to fight in the Mexican War or go to California in 1849. As the Civil War stretched into a battle of attrition, some moved to the mountains to avoid the conflict. Some felt Colorado to be a good place to escape the law or family problems. Whatever the reason, the early mountain Anglo population was predominantly male.

The Colorado mountains in 1859 were beyond the reach of established government and to fill this void the miners experimented and improvised. They brought with them a cultural heritage of democratic government systems, knowledge of the California mining codes, and a reliance on the electoral process. This background demanded that some type of government be established to deal with problems from claim registration to murder. Most often a mining district was formed by the miners, and officials, such as a recorder, were elected. Whenever serious problems arose or new rules were deemed necessary, mass meetings of all miners in the district were called and votes taken on the issues. This procedure was also applied to criminal proceedings. These procedures varied slightly from camp to camp, and the makeshift governments worked well until Territorial, county and local administrations were in place. The informality and mass democracy suited the situation and the miners' temperment well.

The placer mining frontier in Colorado's mountains was fluid with major population shifts every time a new gold strike was made. This led to most people having very little regard for permanence of either institutions or buildings. Wood was used in construction, and if a discovery failed to prove out, the structures were either abandoned or taken down and moved on to the newest camp. This boom and bust cycle repeated itself many times. This mobile society led merchants and others to complain and seek permanence. Such drives led to attempts at copying "eastern civilization" either through sponsoring cultural events, erecting brick structures or promoting road building. This same mindset and lack of well established legal systems left the region open to the intrigues of speculators. Schemes included fraudulent sales of mine claims, land grabbing, stock sales in bogus mining companies, and many other things.

Such confidence-game activities reached their zenith between 1864 and 1868 in Clear Creek and Gilpin counties as the placer diggings were exhausted and miners were faced with having to separate the gold from the surrounding rock. Mine owners became frantic in searching for efficient methods to refine the ore. The early techniques, such as arrastras, lost as much as 70 percent of the precious metal. Such losses were no longer acceptable, and claimholders hired chemists, alchemists, and charletons to solve the problem of refining the gold sulphides. Solutions varied from complicated machinery, roasting and salting the rocks, to having incantations spoken over ore piles before milling. None of these worked. In 1867, Nathaniel P. Hill perfected a smelting process and, from that point on, Colorado's mineral industry was no longer dependent on rich placer strikes for vitality. While the placer frontier passed quickly in the high country, it did lay the foundations for future growth and eventual statehood for Colorado Territory. The mountains were dotted with ghost towns as various diggings played out, and the miners

moved on. The rapidity of its passing the vast areas it covered gave the Colorado mountain placer frontier a unique position in the state's history.

CHRONOLOGY

1806	James Purcell finds gold in Colorado Mountains.
1840s	William Gilpin finds gold while with Fremont's expeditions.
1850s	Continuing reports of gold in the region.
1858	William G. Russell party finds gold on Dry Creek--publicized by Missouri River merchants.
	Gold found by others in Boulder County.
1859	Gold Rush to Cherry Creek.
	Jackson and Gregory gold discoveries on Clear Creek.
	Early discoveries in South Park area.
1860	Gilpin, Clear Creek, and Boulder Counties firmly established as mining areas.
	Prospectors spread throughout mountains.
	Gold discovered in San Juans and Gunnison County (Tin Cup).
	South Park mines open and prosper.
1860-1870	Prospecting and mining continue throughout the mountains.
1864-1868	Process mania grips Gilpin and Clear Creek Counties.
1867	N. P. Hill's smelter at Black Hawk successful--marks end of placer frontier, placer methods continued in use.

LOCATION

Presently, cultural resources associated with the placer mining frontier exist and have been recorded in all parts of the region. These vary from abandoned prospect holes (adits), evidence of hydraulic mining and arrastras, to intact ghost towns of the era, such as St. Elmo. In areas where mining was successful, such as Central City, Idaho Springs, or Oro City, associated with the placer frontier, most, if not all, evidences of the era were obliterated by later mineral operations. Further complicating matters is the problem of accurately dating many cultural resources, such as prospecting holes because of inadequate or inaccurate records of the early period and the scattered nature of the frontier. Also, because water was of prime importance to all types of placer mining, most sites were located on or near stream banks and periodic floods have reduced the survival rate of these cultural resources.

CULTURAL RESOURCE TYPES

Sites include: Adits, Glory Hole.

Structures include: Arrastra, Hydraulic(ing) mining, Long Tom, Rocker or Sluice Box.

Districts include: Mining district.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

The Colorado gold rush and placer frontier has generated a rich and varied body of historical literature. The quantity of volumes, articles, diaries and studies of the era numbers in the hundreds and because of this just digesting the information is a monumental task. Of course, with so many sources of information available, they vary in level of detail and accuracy. The two major works on Colorado history, Ubbelohde, Benson and Smith's A Colorado History and Robert G. Athearn's The Coloradans, contain chapters on the gold rush and should be consulted first, not only for their information but also the bibliographies. The other general studies that contain extensive information on this period are Frank Hall's four volume history of Colorado and LeRoy Hafen's History of Colorado and Its People. Beyond these are numerous studies of mining districts, camps and individuals involved in the placer frontier such as Duane Smith's biography of Horace Tabor. County histories also are valuable for researching this period because of their tendencies toward being compilations of all information rather than interpretative works. Thesis and dissertations such as Lynn Perrigo's study of Central City are numerous and often prove to be very reliable sources. The placer frontier did not generate as many manuscript collections as other phases of Colorado history did, but many diaries from the era are extant either through archives or as published works. Contemporary publications such as guidebooks to the gold fields and newspapers also can provide information, but must be viewed with care because these were usually written to advocate various things. All of these available sources allow easy verification of many cultural resources that have and will be recorded in the Colorado mountains.

Number/Condition

The data are insufficient to determine the exact number of cultural resources that once existed or may have existed. Even estimates of the number of people involved in this era vary from less than 50,000 to over 100,000. Despite such problems, hundreds of sites associated with this theme have been recorded in the Colorado mountains. The condition of these sites varies greatly from prospect holes to camps and towns left intact such as St. Elmo or Independence. In some areas, such as Central City and Leadville, continued mining and the development of permanent communities led to the destruction of resources associated with the placer frontier. The transitory nature of the placer frontier caused many camps to be destroyed by their occupants when new strikes were made elsewhere, and the entire community was dismantled and then reassembled at the new diggings. All these factors combined to degrade the number and condition of cultural resources extant that are associated with this theme.

The Colorado Preservation Office history inventory files are very useful in finding sites associated with the placer mining frontier theme. The National Register of Historic Preservation nomination forms for some sites, such as Central City, have the most detailed and useful information.

Data Gaps

*Representative campsite of a prospecting party clearly discernable *in situ*.

*Clearly discernable *in situ* evidences of early mining efforts at locations that later became mining centers.

*Representative evidences of initial mineral discoveries that caused the Colorado gold rush.

Future Needs

Presently, vast quantities of historical documentation and recorded cultural resources associated with the placer mining frontier make future surveys for these resources relatively low priority. However, much work needs to be done with the present cultural resource data base to make it more usable for researchers. Also, because of the poor descriptions and locations contained in some cultural resource site forms, areas may have to be resurveyed to upgrade the information. Such undertakings would require the skills of an historian well trained in mining, western and land history.

Important Resources

Because of the large number of sites already included in or determined eligible for the National Register of Historic Places or recorded, evaluation of important resources becomes difficult. Obviously, places such as St. Elmo, Independence, and Ashcroft, currently on the National Register, are important, and other similar resources would be also. Beyond that, resources such as prospect holes, temporary diggings, townsites, and other associated cultural resources may be significant for the information they might yield and also to help clarify patterns of Anglo-American activity in Colorado's mountains. However, at this date, it is unlikely that many more cultural resources of National Register quality will be recorded in the study area that are associated only with the placer mining frontier theme. Because of the large number of sites associated with this theme, many of which have been or are likely to be placed on the National Register of Historic Places, only sites with high levels of integrity and at their original location should be considered significant. The information potential for many sites, especially adits, glory holes and hydraulic locations, is extremely low, and most should not be considered significant.

RESEARCH QUESTIONS

1. What resources remain that can establish and clarify patterns of Anglo-American prospecting activity in Colorado's mountains?

2. What cultural resources, if any, can verify historic documentation about activity and techniques of Colorado's placer frontier?

3. Can cultural resources help in forming any reinterpretations of present historic understanding and interpretations of Colorado's placer mining frontier?

4. Can cultural resources help establish a more accurate ethnic and demographic understanding of Colorado's mountain placer frontier?

PHYSICAL CONDITION

Adit: should be clearly discernable as to function and should be datable beyond a reasonable doubt.

Arrastra: should be in situ and have enough of the device left to clearly discern its function.

Glory Hole: should be clearly recognizable, not filled in, and dated to the proper era.

Hydraulic Mine: enough of the machinery, equipment, and facilities should be on the site to clearly discern its function, and it should be dated to the proper era.

Long Tom: enough of the equipment and facilities should remain to clearly discern its function, and it should be dated to the proper era.

Sluice Box/Rocker: enough of the equipment should be left to clearly discern its function, it should be intact and dated to the proper era.

Mining Camp: enough structures of all types (dwellings, commercial, social) should remain standing so a feeling for the fabric and spatial relationships within the camp can be clearly recognized.

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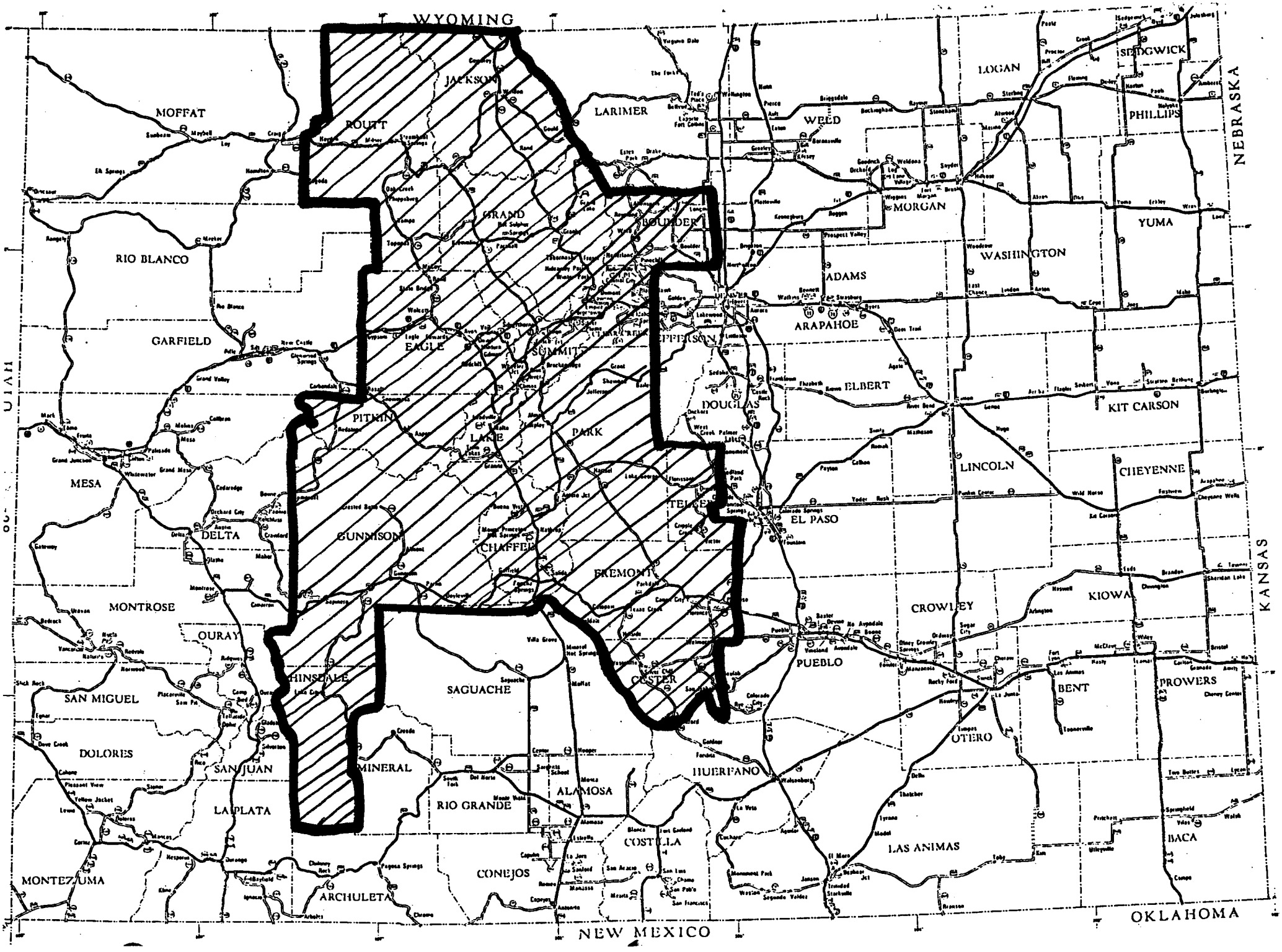

PLACER MINING FRONTIER

5. PRECIOUS METAL MINING AS AN INDUSTRY, 1860-1920

NARRATIVE

The industrial exploitation of gold and silver in the Colorado mountains which began in the early 1860s had become completely developed by 1880. This shift from the placer frontier to hard rock mining was marked by changes in mine ownership, division of labor, mining and prospecting techniques, and financing methods. The placer frontier miner often was also the claim owner but as the industrial phase developed entrepreneurs held many claims while workers were hired to labor underground. The techniques also changed as hard rock operations deep into the mountains replaced the earlier pick and pan surface miners. The expenses of hard rock mining were much greater and as a result joint stock companies and corporations formed to finance the efforts. Technology and geologic science replaced the prospector and his rather hit and miss methods. With the large number of workers and capital investments the era lost some of the fluidity of the placer frontier and permanent settlements began to replace the portable camps. This evolutionary process occurred from the 1860s until 1890s. The era declined after the Panic of 1893.

With the evolving science of the mining industry the techniques need and the development at the various mining camps or towns followed very different courses. Some of the early placer areas such as Idaho Springs or Boulder County continued in production of gold and silver and were experimental areas for new techniques. At these camps changes were gradually introduced in the techniques of mining and in the permanence of the towns. Camps where later discoveries were made applied the practices available at the time and these camps had no true frontier phase. This was exemplified at the Cripple Creek rush of the early 1890s where both the entrepreneurs and geologists were in the field as soon as Bob Womack's find was made public. The town of Cripple Creek sprang up almost overnight as an industrial district.

Boulder, Gilpin and Clear Creek Counties were the cradle of Colorado's mountain mineral industry. Those areas were the first to experience the influences of capitalists and a laboring class, typical of the late nineteenth century American business practices. Many people who became famous throughout Colorado mining circles got started in those areas including entrepreneurs such as Jerome B. Chaffee, Henry Teller and David H. Moffat and the mining engineer and geologic expert Eben Smith. Their experience started during the early 1860s and continued throughout the late nineteenth century. The ranks of capitalist swelled as the industry grew with men like Horace A. W. Tabor, Jerome B. Wheeler, David R. C. Brown and others less famous. The impacts these men had on Colorado's high country and moreover the entire state cannot be underestimated. Because of the capitalist's talents millions

of dollars from eastern and European money markets were invested in Colorado encouraging developments in many business activities from mines to transportation to land development. Stock buyers were willing to risk their money in the West because of the potentially high return on their investments. The money not only developed the state but also gave Colorado its first major industry.

The business practices of these entrepreneurs paralleled those of other businessmen during the Gilded Age. Colorado companies were formed and sold stock to any who would buy. With the increasing sale of Colorado stocks the distance between Colorado and money markets led some unscrupulous promoters to create bogus companies, false leases and other schemes. Federal land and mining law, particularly the Mining Act of 1872, allowed the owners a nearly free hand with their properties. Vague language in the law led to many suits between rival companies. Often the discoverer, unable to hold the property, sold out to a capitalist, who could afford to develop the mine. Colorado industrialists after acquiring large numbers of claims in an area often then consolidated their holdings into one operating unit. By the early 1890s consolidation of claims was typical of Colorado mining. Some of the greater entrepreneurs such as David H. Moffat furthered the practice by buying or building smelters and transportation facilities to create a vertically inegrated mineral exploitation system. This was becoming a common business practice in other industries, especially in steel manufacturing, by the close of the nineteenth century as companies controlled all phases from raw materials to marketing under one management. These practices continued into the early twentieth century.

The rise of labor organizations and management reaction to these unions occurred in Colorado mining comunities at the same time unions were developing ing elsewhere in the nation.

Miners felt the need to organize not only to secure better wages but also because of the dangers inherent in underground mining. Those included cave-ins, misfires of powder/charges, respiratory ailments and competition from non-union workers or unskilled laborers. Workingmen's associations began to form in Clear Creek and Gilpin Counties during the 1860s and eventually spread to every camp in the Colorado mountains. By 1895 most Colorado high country miners were represented by the Western Federation of Miners, a militant union with Socialistic leanings. The union(s) most frequently called strikes for better wages or shorter work days as well as for management recognition of the unions. The walk-outs were met by lock outs and hiring of scab laborers. If violence or its threat occurred mine owners were quick to call on the Governor to send in the National Guard. Leadville, Cripple Creek and many other mountain camps were at one time or another under martial law as a result of strikes. Mineowners also hired private detectives to infiltrate the unions and developed blacklistings of union orhanizers to weaken the organization.

The miners often found themselves forced to give up union affiliations to keep their jobs. Employment security was important because unlike the placer frontier, most later miners were family men and not so flexible about relocation. Many were foreign-born, predominantly from Great Britain, Ireland, or western Europe. Cornishmen were sought by mine owners because of

their experience in the deep coal mines of Cornwall. Native-born Americans, usually with previous underground training, also worked Colorado's hard rock mines. The diversity of people melded together caused typical American communities to develop in the high country.

Because industrial mining was less fluid than the placer frontier the towns were more permanent. Buildings of brick, milled lumber and iron were erected. Court houses, city halls, commercial structures and residential districts all developed. The mines and mills formed the industrial district for a town, sometimes completely surrounding the community. Socio-cultural trappings such as schools, churches, opera houses, union halls appeared as did a professional and service class including lawyers, doctors and others. Class distinctions often led to residential separations with owners and managers in one area of town while miners and workers lived in an another area. While town development varied from town to town, the basic patterns were duplicated throughout the Colorado high country.

CHRONOLOGY

1860-1870	Roots of previous mineral industry develop in Clear Creek, Gilpin and Boulder Counties.
1864	First miners' strike in Gilpin and Clear Creek Counties -- failure.
1865	Civil War ends and foreign capital begins to enter Colorado --primarily British.
1867	Hill's smelter ends process mania and industrial phase starts in earnest.
1870s	Silver discoveries at Caribou and Leadville prompt flurries of entrepreneurial activity as precious metal industry spreads across Colorado mountains.
1872	Congress passes Mining Act of 1872 that sets down rules for operations and claims, but vague language creates problems for entrepreneurs.
1873	San Juan mines legalized by Ute Cession.
1875-1880	Emergence of statewide industry leaders such as J.B. Caffee, H. A. W. Tabor, D. H. Moffat or Eben Smith.
	Growth of union movement and more stikes, especially in Leadville.
	First calls by management for state intervention to break strikes
1880-85	Rail network connects many camps with plains.
	Frontier phase passed, replaced by industry.

1891-95 Cripple Creek opened and entrepreneurs able to use vertical integration ideas to the fullest.

Rise of Western Federation of Miners.

1893 Panic and rapid fall of silver market.

1895-1905 Leadville and Cripple Creek strikes result in violence and official repression by state government.

1900-1920 Large scale industrial mining declines as mineral supplies decline in availability and productivity.

LOCATION

Cultural resources related to the precious mineral industry are located in many areas of the Colorado mountains, especially Clear Creek, Gilpin, Boulder, Hinsdale, Gunnison, Pitkin, Summit, Lake, Chaffee, Park and Teller counties. These resources range from mine claim corners as required by the 1872 Mining Act to entire towns and districts such as the Central City National Historic Landmark. Because of the random nature of mineral deposits no definite pattern can be established in relation to the location of cultural resources attributable to this theme apart from charting mineral deposits. Also, many of the mining towns suffered one or more fires that destroyed much of the community either in the conflagration or in back-fires and dynamiting used to fight the blazes. These disasters destroyed many of the early resources associated with the industry. Others have been flooded or modernized, both of which were detrimental to the cultural resources survival rate.

CULTURAL RESOURCE TYPES

Sites Include: Adit/airshaft, Mines.

Structures Include: Assay Office, Boarding House, Boiler/Boiler House, Headframe, Mill, Mine, Shaft House/Tower, Stamp Mill.

Districts Include: Mining District, Residential District, Ethnic District, Commercial District.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

The historiography of precious metal mining as an industry in Colorado's mountains is in an era of growth and reinterpretation presently. Within the past five years many new studies of the business of mining have appeared that greatly increased historical understanding of the industry. Included are Joe King's A Mine to Make a Mine, Richard Peterson's The Bonanza Kings and James Fell's Ores to Metals. Other studies such as Steven Mehls' dissertation on David Moffat, also recently completed, shed much new light on the topic as well. Duane Smith's books on Caribou and Horace Tabor illuminate the business processes of mining in Colorado's mountains. Richard Lingenfelter's Hardrock Miners and George Sugg's study of the Western Federation of Miners in Colorado

are two of the best works to date on the problems and people involved in precious metal extraction. Many of the mining towns have had biographies written about them such as Marshall Sprague's Money Mountain (Cripple Creek). Card catalogs at libraries should be consulted for possible studies of the towns and how the mining business grew around them. Manuscript collections in the Colorado Historical Society, Denver Public Library, Western History Department, and Norlin Library contain extensive information on the mining business including the papers of many individuals and companies as well as some unions and fraternal orders. These are in various stages of cataloging. Also, the federal circuit court records at the Denver Branch of the National Archives can be useful as can the incorporation records of the Secretary of State at the Colorado State Archives. Scholarly journals and local newspapers can be sources of information. Dena Markoff's All that Glitters gives a sound metholology for cultural resource studies of mines.

Number/Condition

The present data base has not been refined to the point to provide an accurate number of the sites that exist or may have existed associated with precious metal mining as a business. However, over 1,000 sites have been recorded that pertain to this theme and in the future more will be recorded. The condition of these sites varies from intact or reconstructed mines, mills, homes and business buildings built and used by the entrepreneurs to abandoned shaft holes and mining claim corners. The majority of sites have experienced degradation through weather, abandonment, vandalism and sale of assets over the years. Also, efforts to reclaim mineral lands have had adverse impacts on the cultural resources associated with this theme. Efforts in that direction in the future should be carefully monitored by the Colorado Preservation Office staff.

Data Gaps

*Examples of precious metal mining in certain areas where it was well established but the cultural remains have not been found or adequately recorded.

*Representative examples of mining stock exchanges.

*Since so many sites have been recorded that are associated with this theme the data gaps should not be considered a high priority.

Future Needs:

Further surveys to record additional cultural resources associated with this theme may not be a high priority. However, it will be necessary to first assess the present knowledge about inventoried sites before it is possible to decide if more survey is needed. Information should be compiled from state site inventory records and from the surveys conducted to date including ones that cover multiple topics and also ones such as the Main Street Program.

An addition need exists with regard to upgrading site descriptions and location for inventory records on file at the Preservation Office. In many cases where mining sites associated with the theme have been recorded the

information is inadequate. The upgrading of site information may require resurvey in selected areas within the mountain region. Such an undertaking would require the skills of an historian trained in Colorado mining and economic history.

Important Resources

The major precious metal mining camps in the mountain region which operated during this period are the focus of the important resources for the theme. To the extent that the buildings, sites, and structures retain their integrity demostrating the original condition and setting (as either an entire camp or a portion of or district in the original camp) they are important. Individual structures may also be considered important if they are associated with important people or events connected with the theme, or exemplify construction or architectual style important in conjunction with this theme.

Important resources also include representative and unique examples demonstrating the growth or development of precious metal mining as an industry. This may include examples of the form of the development of towns which grew into major camps from early placer operation beginnings, examples of camps which began during this era, examples of mining consolidation, examples of various stages of development as towns became more "permanent". Portions of the camps or towns may be important as districts exemplifying unique or representative examples of the configuration of mining facilities, residential neighborhoods (displaying social or ethnic stratification), or business blocks.

RESEARCH QUESTIONS

1. What cultural resources, if any, remain that could provide a re-interpretation of the economics of precious metal mining?

2. What cultural resources, if any, remain that could provide new information or a re-interpretation of present historic documentation about the business practices and methods used in precious metal mining?

3. How can cultural resources help clarify spatial and/or social relationships within mining towns? Can cultural resources lead to a re-interpretation of present theses about social structure and ethnicity?

4. Can cultural resources verify or identify patterns of social mobility within a mining community?

PHYSICAL CONDITIONS

Adit: Should be intact, not filled in and adequately documented.

Assay Office: Should have exterior physical and locational integrity and its function should be well documented.

Boarding House: Should have exterior physical and locational integrity

and its function should be documented.

Boiler House: Should have enough physical and locational integrity that its function is readily apparent.

Headframe: Must have location integrity and enough equipment left on the site that its function is readily apparent.

Mill: Should have physical and location integrity and enough equipment left on the site that its function is readily apparent and not be filled in.

Smelter: Plant should have physical and locational integrity and enough equipment left on the site that its function and method of operation is readily apparent.

Stamp Mill: Plant should have physical and locational integrity and enough equipment left to make the method of operation readily apparent.

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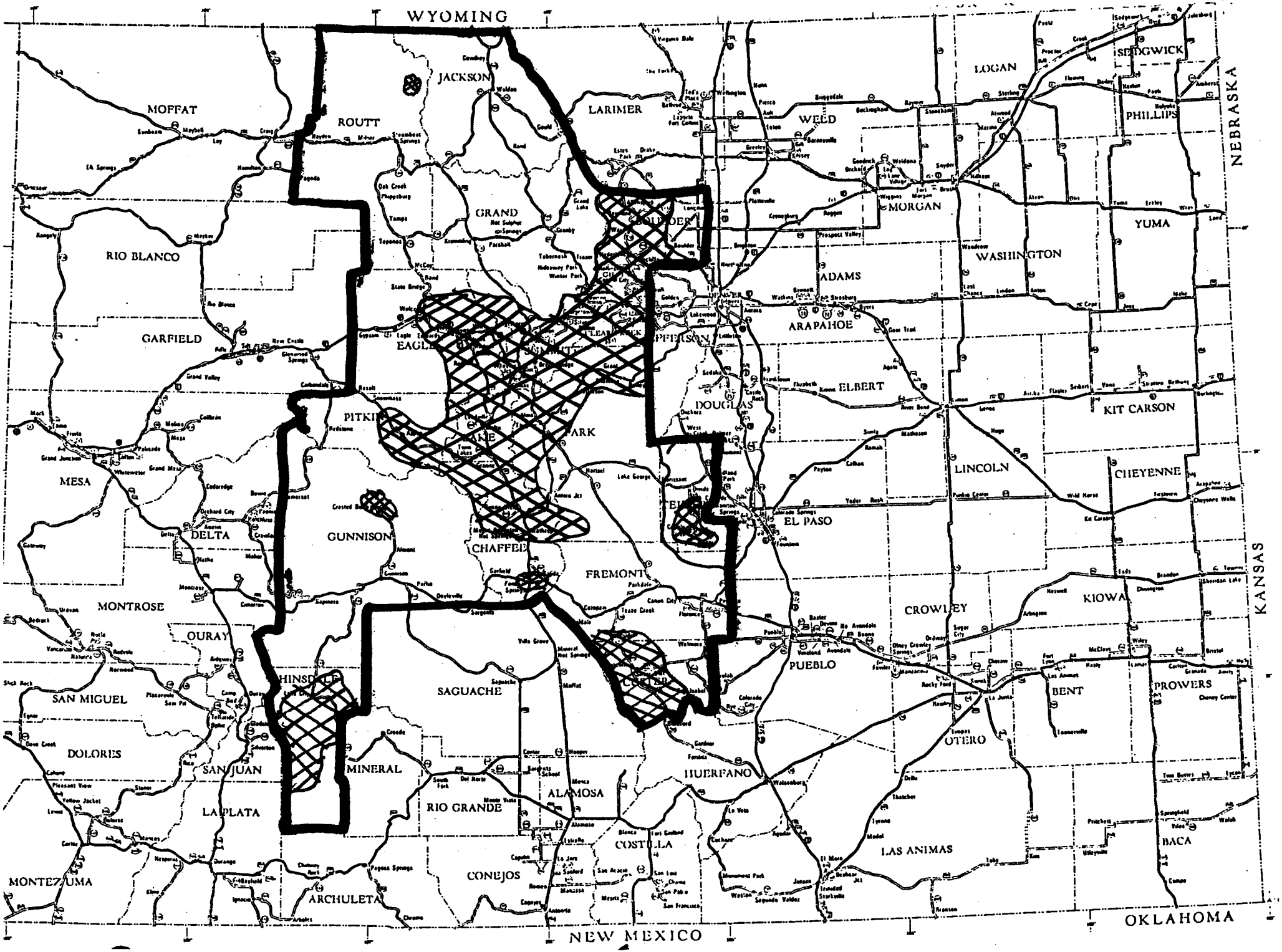

INDUSTRIAL PRECIOUS METAL MINING

6. THE TECHNOLOGY OF MINING IN COLORADO'S MOUNTAINS, 1859-1900

NARRATIVE

Colorado's reputation as a center of western mining was based as much on the ability of man to find ways to wrestle the ores from the mountains and the gold or silver from the ores as from the presence of the minerals. Unlike California and other placer mining areas of the West, the greatest proportion of Colorado gold and silver were locked in rocks as parts of exotic chemical mixes such as sulphides, phosphates, and carbonates. Only limited amounts of placer or free gold were available in the high country streams and much of that was "float gold," i.e, too small grained to be trapped by panning or sluicing. From 1860 on, miners realized that Colorado's mineral prosperity would be from hard rock mining and the application of science and technology to the problems of ore refining. This situation not only led to the early disappearance of the placer frontier, but also made Colorado the leader of western mining science.

Most of the techniques used during the placer phase, as well as some of the underground methods such as timbering and cribbing methods of constructing the framework for a mine, were brought to Colorado from California and the Comstock Lode. Placer mining, which was dependent upon constant supplies of water, varied from panning to hydraulicing. The placer methods relied on sluicing to separate gold pieces from the surrounding earth. This was based on the fact that gold's specific gravity is greater than that of most other typical components of streambed gravel. As water washed over the gravel, it carried away the unwanted parts leaving gold to be collected. The first improvement involved combining the gold and gravel mixture leftover from the washing with mercury (also referred to as quicksilver). The mercury attracted any gold in the mixture, and it was then roasted to separate the gold from the mercury.

The next improvement was the introduction of the arrastra and stamp mill to pulverize gold bearing rocks taken from shallow holes following ore veins. The arrastra, a technique originated in Mexico, utilized a mill stone set in the ground and muller stones that rotated around the base crushing the ore. Arrastras were generally small in size and capacity. Stamp mills used a "mortar and pestal" technology to pulverize the ore by dropping heavy iron capped wooden poles (stamps) onto the rocks. The stamps, usually ten or twenty in a mill, were attached to a rotating camshaft that lifted and dropped them. After being crushed either in a stamp mill or arrastra, the ore was either sluiced or treated with mercury or both. The arrastra and stamp mill served as technological bridges between the early hard rock miners and their placer predecessors.

The use of stamp mills continued until the early 1900s, while arrastras lost popularity much earlier. The reasons were primarily economic: stamp mills could process greater quantities of ores more rapidly. Also, as

smelters became popular because of their larger capacities and operating methods, the trend away from arrastras continued. Stamp mills remained because many refining processes required ores to be crushed before smelting. The use of smelters on Colorado ores dates to the early 1860s when mine owners shipped high grade ores to England for refinement. However, the high costs of transportation meant that only the richest ores could be profitably processed. Also, it was found that much of the Colorado gold could not be successfully refined by the existing English methods due to the chemical composition of the ores. These problems led Gilpin and Clear Creek County mine owners to search for a local solution. Eventually their calls for help were answered by Nathaniel P. Hill, a chemist from Brown University. In 1867, he opened a smelter at Black Hawk that successfully reduced the area's gold sulphide ores.

With this breakthrough, Colorado's future as a precious metal producer was assured. Soon, many tried to copy Hill's process, and smelters sprang up in many camps. As greater quantities of silver were mined, smelting processes changed to refine the silver ores, especially those high in lead content found around Leadville, Aspen, and the Eagle Valley. Another change at the same time was the introduction of blast furnaces to achieve the high temperatures needed for efficient melting of the ores. Hill's smelter had been a modification of the open hearth furnace, needing much horizontal space and involving a time consuming process. The blast plants were vertically oriented and were far more fuel and time efficient.

Once these two basic furnace patterns were established, additional refinements concentrated on improvements to save fuel or time as well as to raise the precious metal recovery rate. These included T. S. Austin's Pyritic process, the MacArthur-Forrest Cyanide process, and numerous others. As ores yielded less and less gold or silver, the smelters often depended on the sale of base metal waste from the processes, such as lead or copper, to make a profit. Also, mine owners sought ways to pre-refine the ores before smelting to increase profits: foremost amongst these were concentrators, roasters and the Wifley table, many of which were used world-wide after development in Colorado.

While Colorado's high country smeltermen sought process improvements and fought off competition from large plants that developed in Denver and Pueblo after rails connected the plains and mountains, mine owners and engineers worked to meet challenges as mines went deeper and deeper into the mountainsides. The first problem was how to support tunnel walls and ceilings without totally covering them with timber. This was solved by adoption of square-set timbers, a technique developed in the Comstock Lode in Nevada. Light was provided by miner's lamp's candles until electric lights were introduced. Another problem was adequate ventilation in the underground workings. Shafts, fans, and bellows were used to freshen the air. Drilling and blasting, to free the ore, depended on hand labor until the air drill was introduced. Alfred Nobel's invention of dynamite and its use by mine owners removed many of the hazards of misfires and hangfires typical of black power blasting. Miners opposed dynamite because of the gasses it gave off during explosion, and owners were forced to continue expanding ventilation systems to resolve this problem.

Movement of ore, men, supplies, and ground water seepage from the working face to mine entrance was accomplished through a variety of means. Hand or animal powered twelve inch or eighteen inch mine railroads moved the rocks along tunnels to the main shaft or ore bin. If the tunnel connected to the portal, the tram cars carried ore to the surface. If not, hoists pulling buckets brought the ore to the surface. These were usually steam powered and also were used to transport men and supplies. Many Colorado mines suffered from ground water seepage, and that too had to be removed. Methods varied from syphons and pumps to tunnels. In areas where many mines had water problems, companies were formed to build a tunnel and carry off the liquid, thereby avoiding the costly process of pumping it to the surface of the mine. Water from the mines could then be siphoned to the tunnel. Often these passages served secondary roles to transport ore from the mines.

All the inventions, modifications, and developments of the late nineteenth century made mining profitable. The techniques and machines developed in the Colorado mountains were copied and used in mines throughout the West and the world.

CHRONOLOGY

1859-1860	Arrastras and stamp mills introduced in Gilpin, Clear Creek, and Boulder Counties.
1860-1865	Underground hard rock mining begins in Clear Creek Valley.
1864-1868	Process experiments as mine owners search for refining methods.
1867	N. P. Hill's Black Hawk smelter opens and is successful.
1865-1870	Square set timbering methods adopted in Colorado as standard techniques.
1867-1880	Smelters built in mining camps to be near source of raw materials.
1880-1900	Major smelters relocate to Plains cities of Denver and Pueblo because of rail connections and space availability.
1890s	Water tunnels, electric power and air tools come into widespread use.

LOCATION

Cultural resources attributable to historic mining engineering can be found in Hinsdale, Gunnison, Lake, Pitkin, Eagle, Summit, Chaffee, Teller,

Gilpin, Park, Clear Creek, Fremont, and Boulder Counties. The resources vary in scale and scope from abandoned mine shafts and tunnels to head frames to complete mine and mill complexes. Since much of the same technology was applied to exploitation of minerals, such as tungsten in Boulder County, such mines should rightfully be included in this context for their engineering features. Because of the scattered nature of mineral deposits, many resources pertinent to this theme are widely dispersed throughout the region.

CULTURAL RESOURCE TYPES

Sites include: Adit/airshaft, Tunnel.

Structures include: Arrastra, Boiler/Boiler House; Concentrator, Headframe, Mill, Ore Bin, Shaft House/Tower, Smelter, Sorting House, Stamp Mill, Tram and Tram Cars, Blast Plant, Roaster, Wifley Table, Shafts, Mine Railroad.

Materials include: Tools associated with mining, such as hand tools, miner's lamps, pumps, siphons, fans, bellows, and other implements.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

Presently, the technology of mining in Colorado's mountains has not been studied as intensively as other parts of the industry, yet some significant works have been completed within the past few years that add much to historical understanding of mining technology. Two of these are James Fell's Ores to Metals and Neiber's study of the Wifley inventions. The most comprehensive works to date are Otis Young's Western Mining and Rodman Paul's Mining Frontiers of the Far West. Consulting these various studies should answer most questions about mining technology in terms that can be understood by the lay person. Other sources of information are government reports done by the United States Geological Survey and the U. S. Bureau of Mines. The best overview of these is provided by Charles Henderson's History of Colorado Mining (1926). Many of the other reports are highly technical and, while useful, often require readers to keep a dictionary at hand. The Bureau of Mines and Geological Survey are indexed by year and county in Government Printing Office indexes. Copies are available at Norlin Library at the University of Colorado and other libraries in the state. Manuscript collections at the Colorado Historical Society, Denver Public Library, and Norlin Library contain records for many of the mining, milling, assay, machinery and smelting companies, and business leaders involved in the invention and use of mining technology in Colorado's mountains. The final important source of information on this theme is the Engineering and Mining Journal that was a periodical published throughout the late nineteenth and early twentieth centuries. This magazine contains articles about "new" advancements in mining and is a valuable resource. Dena Markoff's All that Glitters propose sound techniques to be used for cultural resource managers for this theme.

Number/Condition

The data is insufficient to determine the number and types of resources that once existed or may have existed. However, because the theme encompasses all phases of mining, a safe estimate of the number of resources that once existed would be well over 1,000. Many of the resources, such as square set timbers, have deteriorated due to underground conditions in abandoned mines. Further, the hazards of recording such resources usually far outweigh the benefits to be gained. Smelters, mills, and other surface features vary in condition from excellent (Argo Mill or Lebanon Mine and Mill) to sites that have had old structures removed and new building put up on them. Other sites have suffered from dereliction, weather, vandalism, and souvenir hunters. Some sites were sold by their owners for scrap metal and did not survive into the twentieth century. Most of the inventoried sites associated with this theme have been recorded as part of surveys of towns and communities. These need to be scrutinized for site type and theme to identify the presence of mining technology resources since the technology resources were most often located within the cities.

Data Gaps

*Representative examples of each of the many ore refining techniques.

*Representative examples of unique adaptations of standard mining techniques.

Future Needs

Surveys and reevaluation of present data is needed to find and/or associate known or possible sites with this theme and parts of this theme. Again, while it would be ideal to survey the interior of all abandoned mines in order to identify the occurrence of specialized mining adaptations, the hazards of such an undertaking are so great compared to the data that would be retrieved that this option should not be considered except under conditions that guarantee surveyor safety. An additional need is for historic studies and historical archaeology (industrial) at the locations of abandoned or partially destroyed mills and smelters to recover data about the actual processes. However, before extensive on-site investigations are undertaken, all documentary evidences should be examined. This will provide a research perspective as well as to also help control costs.

Important Resources

Resources associated with this theme may have not only have state significance but also multi-state or national significance. The technological improvements developed in the Colorado mountain region are important in Colorado, because of the major role mining played in Colorado's early economic development. In addition, the innovations developed in Colorado were then used throughout the West, making Colorado the leader in western mining science. Nevertheless, because of the large number of recorded sites and extensive documentary sources, not all can be considered important. Only those that substantiate the innovative leadership role of Colorado mining the the West or help document industrial processes should be given great consideration for their interpretative and informational

value. In addition, sites associated with the important individuals or "events" of technological developments are important, such as the site of the first smelter of Blackhawk developed by Nathaniel Hill.

RESEARCH QUESTIONS

1. What resources, if any, remain that can provide information on the technologies of mining in Colorado's Mountains?

2. What resources, if any, remain that can provide information on the technologies of ore refining in Colorado's mountains?

3. Can information from any remaining cultural resources help verify present interpretations of Colorado's leadership role in western mining technology?

4. Need to identify the people involved in the development of the mining technology in the state and what were their origins, training, and subsequent careers in Colorado?

PHYSICAL CONDITION

Adit: It should remain unfilled and its functions should be readily apparent.

Arrastra: Should be in situ and enough left intact to make its function and method of operation readily apparent.

Boiler: Should have locational and exterior integrity and enough equipment should remain to make its function and method of operation readily apparent.

Concentrator: Should have locational integrity and have enough machinery remaining to make its function and method of operation readily apparent.

Headframe: Should have locational integrity and enough of its structure and machinery present to make its function and method of operation readily apparent.

Mill: Should have locational integrity and enough of its structure and machinery present to make its function and method of operation readily apparent.

Ore Bin: Should have locational integrity and enough of its structure and machinery present to make its function readily apparent.

Smelter: Should have locational integrity and enough of its structure left on the site, should be undisturbed so that its function is readily apparent or to assure the integrity of industrial archaeological materials.

Sorting House: Should have locational and physical integrity enough to make its function readily apparent.

Stamp Mill: Should have location and physical integrity enough to make its function readily apparent. This may or may not include internal machinery.

Tram: Should have enough physical integrity to make its function (mode of operation) and length readily apparent.

Tunnel: Should not be filled in and should have enough internal integrity to show timbering, tunnelling and mining functions and techniques.

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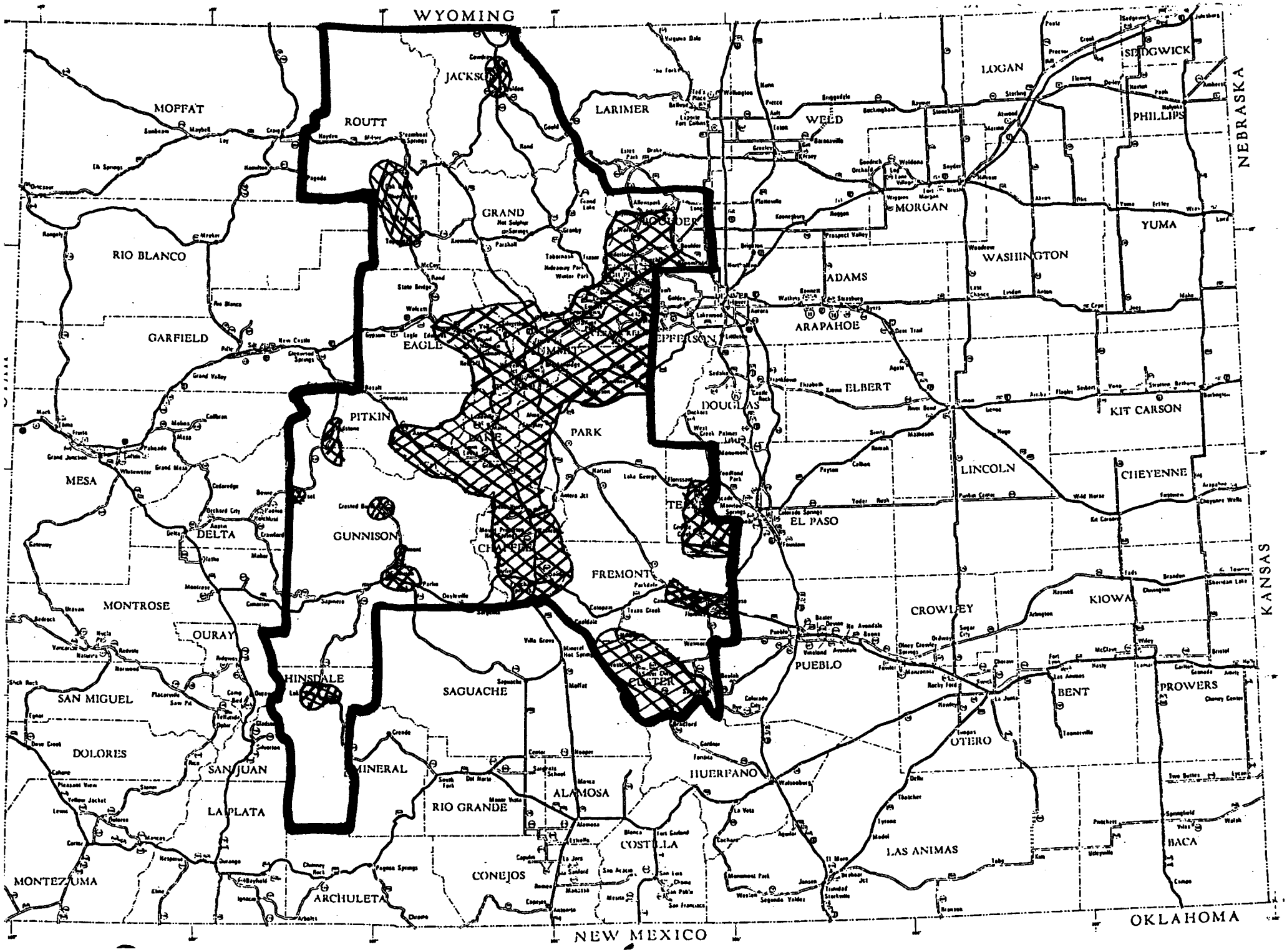

MINING TECHNOLOGY

7. COAL MINING, 1870-1930

NARRATIVE

Coal, a resource important to much of Colorado, was first noted in the mountains by John C. Fremont during his second expedition (1844) to the region. His journals record outcroppings along the Yampa River and Oak Creek in modern day Routt and Moffat Counties. Fremont's finds went forgotten for a generation. When the fifty-miners arrived and began prospecting in the Upper Arkansas Valley, in Boulder County and elsewhere they found many areas in Colorado's high country to be rich in coal deposits. Little was done with these discoveries for a decade since the attention was placed on finding gold and silver. The lack of transportation and markets kept early coal mining limited to local consumption.

This changed rapidly during the 1870s and 1880s with the advent of railroads into the region and the development of markets for coal. The beginning of large-scale coal mining at different locations in the high country can be dated to the arrival of rails to these areas. The time scale varied from 1870 for the Boulder County fields (with completion of the Denver Pacific Railroads) to 1906 for the Oak Creek coal fields with the rail connection from Routt County to Denver. The era of most rapid coal mine expansion was the 1880s as the major transmontane railroads were built and the growth of the smelting industry in precious metal mining created a ready market for coal production.

With these changes fuel production became a corporate undertaking with large companies replacing and/or buying out the small operators in many areas. Two corporations quickly came to dominate the mountain coal fields by the 1890s -- Colorado Fuel and Iron Company (CF&I) and its predecessors; and the Rocky Mountain Fuel Company. Others were also involved but their efforts appeared small in comparison. CF&I held property primarily in the central and southern mountains mining anthracite and high grade bituminous coal. Rocky Mountain Fuel was represented in most coal fields of bituminous and lignite in the northern mountains and the front range. Both companies had the capital available to fully exploit the natural resources at their command and took advantage of any new technology as it was developed.

The major coal companies (and other industries) built towns and facilities for their workers. CF&I is the most widely recognized coal company for this type of activity in the Colorado mountains. Company management took a paternalistic view of their laborers and attempted to control their lives from the size and type of housing according to family status to the entertainment available in the camps. John C. Osgood, President of CF&I, and one of the foremost believers in such ideas established Redstone, Colorado as an attempt to create the model industrial community. Although the degree of oppression fostered by the corporate communities has been criticized it nevertheless lent a uniformity to life in the company towns. This was re-

flected in both the social fabric and built enviornment of the company towns.

During the late nineteenth and early twentieth centuries the manufacture of coke was tied closely to the coal mining activity both economically and physically, especially in regions dominated by CF&I. The rapid growth of Colorado's smelting industry made a ready market for coke produced in the high country. Once coke was available wood and charcoal ceased to be important fuels for the refineries. Many types of coke ovens were experimented with but the traditional beehive design predominated in the high country because of efficiency, ease of construction, and lack of complicated operation.

Coking and coal mining as practiced during the period from 1880-1920 required large numbers of workers. The majority of these people, including some blacks, came to Colorado's mountains from eastern farms and coal fields, but some workers included Welsh miners and people from many parts of Europe. By the 1890s many foreign-born miners were at work in the high country coal mines. In some camps Slavic, Italian and Polish language newpapers were published. Companies promoted the establishment of ethnic communities, especially CF&I, by transferring workers with similar national backgrounds to the same camp. But because the company controlled the town architecture and layout the presence of diverse ethnic groups in these communities usually did not leave ethnically identifiable sites or features except evidence of headstones in the local cemetary.

Coal mining was the most dangerous of underground occupations during the late nineteenth century in Colorado's mountains. Although the coal workers shared hazards in common with their hard rock counterparts such as cave-ins and respiratory problems (especially the black lung disease) they also faced dangers from blasting coal. Moreover coal mining frequently produced methane gas as did the hard rock mines. This colorless, odorless gas was highly explosive and even early detection and ventilation methods often could not prevent its accumulation. Once pockets formed a spark could easily trigger an explosion and fire that killed or maimed many within a few seconds. Such disasters led to calls for mine safety improvement but little was done until coal mining had declined and most high country mines were closed.

The Panic of 1893 and decline of silver prices as well as a general cutback in precious metal mining led to a rapid retrenchment of coal mining in much of the high country. The CF&I mines suffered the most as smelters in Aspen, Leadville and elsewhere stopped purchasing large quantities of coke. This trend continued until 1916 when only a few CF&I mines were left open. Other companies suffered less because their markets, which were primarily concentrated on home heating, continued strong until the 1920s and 1930s. At that time the coal industry again faced a major decline as fuel oil and natural gas were quickly replacing coal for domestic consumption in Colorado's cities. Also the great depression and a chronic national oversupply of coal forced many of the remaining high country mines to close. By 1945 coal mining once important throughout the region, was virtually non-existant.

CHRONOLOGY

1844 J. C. Fremont finds coal in Routt County.

1859-65	Coal discoveries made throughout region but few mines open because there were no markets or transportation.
1870s	Coal mining limited to small operations for local consumption.
	As rail network expands interest in coal mining grows, many coal lands claimed.
1880s	Corporate coal mining begins to develop in southern and central mountains.
	Growth of smelting and domestic uses stimulate coal mining.
	Coking begins to supply smelters.
	Company towns emerge by late in decade.
1893	Panic of 1893 marks beginning of decline in coal mining.
1906	Oak Creek coal fields open - last major area to develop.
1916	CF&I closes most high country mines by that year.
1920s-30s	Use of fuel oil and natural gas increases and coal drops in importance.
	Nationwide oversupply of coal further depresses markets.
1930s	Great Depression virtually ends coal mining in Colorado mountains.

LOCATION

Cultural resources attributable to coal mining are scattered throughout the Colorado mountains from Jackson and Routt Counties south to Custer and Fremont Counties. The smaller operations, usually small companies or individually owned mines are more scattered. Larger mines and concentrations of coal mining cultural resources, such as company towns, are located along current and/or historic transportation routes, particularly railroads. Cultural resources vary in complexity and scale from simple tunnels and portals to entire communities such as Redstone, Colorado and also near ghost towns such as Walden or Coalmont, Colorado.

CULTURAL RESOURCE TYPES

Sites Include: Airshaft, Mine.

Structures Include: Boarding House, Boiler/Boiler House, Coke Ovens, Head frames, Mine, Scales, Shaft House, Tipples, Tram, Washing Plants, Wash House.

Districts Include: Company Towns

Materials Include: Tools associated with coal mining such as hand tools,

miners' lamps, pumps, siphons and other implements.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

While mining of precious metals in the Colorado high country has stimulated extensive professional interest the same cannot be said for coal mining. To date the field of historical scholarship on this topic is very thin. Foremost is Lee Scamehorn's Pioneer Steelmaker in the West that details the activities of Colorado Fuel and Iron Company. Other generalized studies of the area such as the Bureau of Land Management's Class I's (Isolated Empire, Frontier in Transition, Valley of Opportunity and Land of Many Flags) contain useful information about coal mining in the region. Charles Henderson's History of Colorado Mining also is useful, but its early publication date (1926) makes it incomplete for twentieth century activities. County and local histories vary greatly not only in their level of detail but also in accuracy. If these histories are consulted attempts to verify their information should be made. Special and annual reports by the state mine inspectors and others can provide lists of active mines and totals of production. However, to compile this data great amounts of effort are required. The U. S. Bureau of Mines and U.S. Geological Survey both published numerous reports about coal mining and resources in the state. These are indexed by county and year in indexes issued by the Government Printing Office and most are readily available at Norlin Library in Boulder and the Denver Public Library. The manuscript collections available on coal mining are more limited than for other mining activities. The records of Colorado Fuel and Iron Company, probably the most valuable of any primary source for this topic have not been made available to researchers except to Scamehorn. Other companies' records and collections of entrepreneur's papers are available at Norlin Library, the Colorado Historical Society and Denver Public Library. Guides to these collections should be consulted for specific individuals or companies. Markoff (All that Glitters) can be useful for cultural resource management with this theme.

Number/Condition

The data are insufficient to determine the number and types of resources that once existed or may have existed. The exception to this is historic documentation regarding the number and location of Colorado Fuel and Iron Company facilities that once existed. This information is contained along with many photographs, in Scamehorn's study of the corporation. Few of these resources have been recorded in the Colorado site inventory. Many of the other resources that properly are associated with this theme have either been mis-identified or destroyed by later development. The condition of sites ranges from very good to demolished. Often the coal companies removed their structures when they ceased operations and those that weren't removed have been subjected to weather, scrap dealers, souvenir hunters and vandals. All these forces tend to adversely affect the cultural resources as did early efforts at the mine reclamation.

Data Gaps

*Correlation of non-CF&I coal mining to local economic and mineral

activities.

*Complete coal processing facilities in one location.

*Identification of important people and events associated with the coal industry in Colorado.

*Identification of location activities and remains of sites associated with the small and private coal companies.

*Identification of location, activities and remains of sites associated with Rocky Mountain Fuel and with CF&I.

Future Needs

As a first step efforts should be expended to correlate, upgrade and if needed re-survey parts of the existing data base to insure proper identification and recordation of sites associated with this theme. Such an undertaking would require the special skills of a historian experienced in field work and photo interpretation. Following this, an evaluation plan to accomplish further survey can be developed. This may include thematic surveys to record specific resources or resources associated with small and private companies, with C.F. & I., or with Rocky Mountain Fuel.

Important Resources:

Presently, because of the limited amount of historical scholarship on this theme each site associated with it must be given special consideration. Important resources include: association with important people (John C. Osgood and others) and important events in the history of coal development and the major coal companies in the region; representative and unique examples of coal company towns; representative and unique examples of coal mining technology and associated coal sites and structures, representative and unique examples of coal sites and structures associated with the two major companies in the region - CF&I and Rocky Mountain Fuel Company and with the small and private companies. In addition, resources that can help identify patterns of local historic economic growth or used to verify present interpretations of the role of coal mining in Colorado's mountains would be important.

RESEARCH QUESTIONS

1. Can cultural resources help verify present historical understandings of coal mining in Colorado's mountains?

2. Can cultural resources verify or refute Scamehorn's findings vis-a-vis the role of Colorado Fuel and Iron Company in selected areas of the high country?

3. What resources, if any, remain that can clarify the role of ethnic groups, women and/or minorities in Colorado's coal industry?

4. Can cultural resources provide correlations between coal mining activity and other pursuits in the Colorado Mountains?

PHYSICAL CONDITION

Airshaft: Should be not filled in and if it had been mechanized it should have enough equipment left to readily recognize its function and method of operation.

Boarding House: Should have locational and external integrity and its use and/or any historic changes should be well documented.

Boiler House: Should have locational and exterior integrity and enough machinery intact to make its function readily apparent.

Coke Ovens: Should have enough external integrity left to readily identify their function, mode of operation and capacity.

Company Towns: Should have enough structure built by or for the company and/or its period of ownership to impart feeling of fabric and identify spatial relationship.

Headframes: Should have locational integrity and enough of the structure and machinery intact to readily identify its function and mode of operation.

Mine: Should not be filled in, its opening should be intact and enough internal components should remain to make its function, engineering and mode of operation readily apparent.

Scales: Should have locational integrity and enough of the machinery left to identify its function and if enclosed should have enough of the structure left to provide physical integrity.

Tipples: Should have location integrity and enough of the structures should remain intact to readily identify function and capacity.

Tram: Should have location integrity and enough of its physical plant intact to determine mode of operation and length.

Washing Plants: Should have physical and locational integrity and enough of its structure and internal appliances to readily determine function.

Wash House: should have physical and location integrity and enough of the interior intact to readily explain function.

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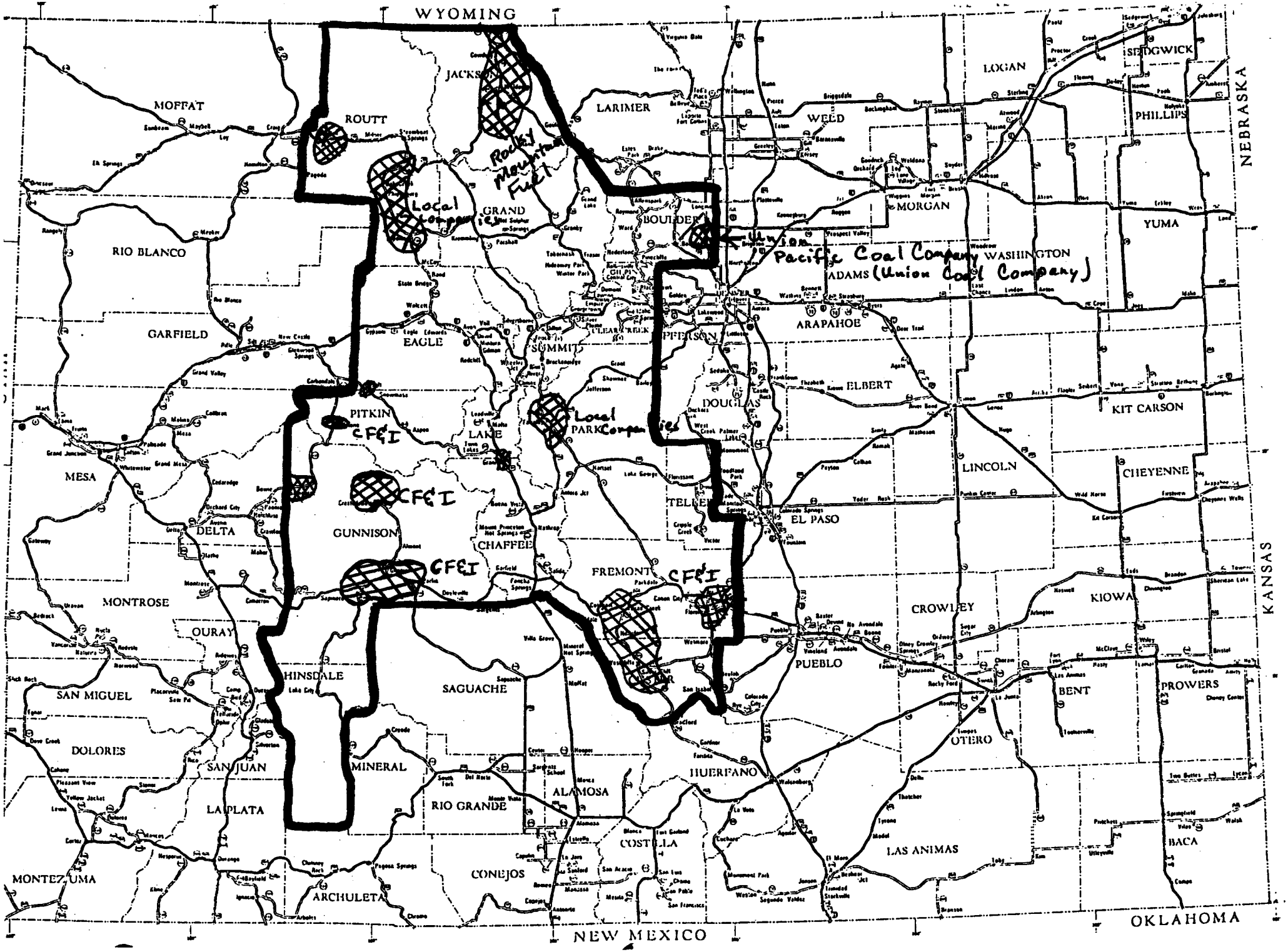
WYOMING
NEBRASKA
KANSAS
OKLAHOMA
NEW MEXICO
JACKSON
MOFFAT
ROUTT
LARIMER
WELD
LOGAN
SEDGWICK
PHILLIPS
YUMA
MORGAN
RIO BLANCO
GRAND
BOULDER
Rocky Mountain Fuel
Local Companies
Pacific Coal Company
(Union Coal Company)
WASHINGTON
ADAMS
ARAPAHOE
GARFIELD
EAGLE
SUMMIT
CLEAR CREEK
JEFFERSON
ELBERT
KIT CARSON
PITKIN
CF&I
LAKE
PARK
DOUGLAS
LINCOLN
CHEYENNE
MESA
TELLER
EL PASO
DELTA
GUNNISON
CHAFFEE
FREMONT
MONTROSE
OURAY
CROWLEY
KIOWA
PUEBLO
HINSDALE
SAGUACHE
SAN MIGUEL
PROWERS
BENT
DOLORES
SAN JUAN
MINERAL
HUERFANO
OTERO
LA PLATA
RIO GRANDE
ALAMOSA
COSTILLA
LAS ANIMAS
MONTEZUMA
CONEJOS
ARCHULETA
BACA

COAL MINING

8. LEAD, ZINC, AND OTHER MINING, 1860-1945

NARRATIVE

Gold, silver and coal were the three most sought and utilized minerals to be produced in Colorado's mountains but other commodities from the mines often overshadowed these in local areas. Further, many mines which were originally located for their precious metals continued to operate by the mining and sales of base and rare earth metals which became more important financially than gold or silver. Other mining industries included in this theme are oil and natural gas drilling and stone quarrying. All these activities added to Colorado's mineral output and helped economic growth and development of the mountains. Much of this development was closely tied to natural industrial growth during the late nineteenth and early twentieth centuries as new products were invented and their production required minerals found in Colorado. Much of the mining technology utilized for these industries was borrowed from hard rock and coal mining in the region and modified to suit local circumstances.

The base metal industry had its beginnings in the same period as the silver and gold rushes to various parts of the region: roughly 1860 to 1880. Often, when a gold or silver vein was found the ore also contained quantities of lead, zinc, tungsten or copper. During the refining process these were separated and sold. Once these metals were properly identified (in the case of tungsten this did not occur until after 1900) mineowners took commercial advantage of them. However, during the early years very few mines were opened for primary production of the base metals.

During the 1880s and 1890s this began to change with exploration for and establishment of mines for base metals independent of precious metals. At the Gilman Camp in the Eagle Valley, New Jersey Zinc and its associated companies searched for and established mines with zinc ores. Any silver the ore contained was simply seen as a side benefit. The trend was furthered when smelter owners actively began seeking lead ores to mix with certain grades of silver ores which had low lead content, a necessary element in the refining process.

With the dawning of the twentieth century the emphasis on base metals accelerated. Two notable examples were the Climax molybdenum operations in Summit County and the 1910-20 tungsten boom in Boulder County. Both minerals were necessary in steel alloy production and found ready markets. During the same time many prospectors were seeking radioactive materials in the mountain region, but had little success in finding it until after 1945. Base metal mining, except for tungsten, continued to be productive through the Second World War or until local supplies were exhausted. The tungsten industry in Boulder County failed to survive because of new discoveries in China in 1917 and elsewhere that soon drove prices too low to make Colorado mining profitable. Also, epidemics of swine flu and diptheria killed many in the tungsten camps between 1918 and 1922 and a lack of labor furthered the rapid decline of

tungsten mining.

The oil industry experienced similar market trends that tended to control the rate of production as much as available reserves did. Utes told early settlers about the crude oil that bubbled from the ground in many places. The first recorded Anglo uses of oil came about in 1859 and 1860 near Canon City. Because of a lack of markets little development took place until the 1890s when the Florence oil fields were fully developed and Florence became a refining center. The early twentieth century saw interest shift to the plains of Boulder County as new wells were sunk. Soon the excitement moved further east and north out of the region but the derricks in the mountain region continued to produce oil and natural gas. Discovery of the west Texas and California fields during the 1920s and an oversupply forced the Colorado mountain producers to either go out of business or to greatly curtail production until much later.

Stone products, including clay, gravel, stone, marble and cement, were the basic building materials for permanence during the late nineteenth century. All these materials were readily available throughout Colorado's high country but because of their bulk and weight they were not easily transportable. Only those of high value, such as fancy building stone, marble and cement, could profitably be mined at any distance from markets. This situation led to the operating of quarries and gravel pits near most towns of size for local use as building material. Most of the quarries and gravel pits were small in volume and individually owned and operated. This changed somewhat with the spread of railroads when building materials could be more easily transported.

The two stone products that did not fit this pattern were marble and portland cement, the later becoming increasingly used in building during the twentieth century. The only marble deposits found in Colorado large enough for commercial use were found near the Crystal River at Marble, Colorado. These were discovered during the 1870s but little was done to develop them until the 1890s and and early 1900s. Eventually products of these quarries found their way into many state and nationally famous buildings including the Tomb of the Unknown Soldier at Arlington National Cemetary. Competition from Vermont and Italian marble, and the exhaustion of easily mined supplies led to closure of the quarries and abandonment of the facilities by 1941. Cement, on the other hand, grew in importance and use throughout the twentieth century. In Colorado the industry was led by Charles Boettcher, founder of Ideal Cement Company, eventually to become the world's largest producer of the material. Boettcher and other early cement manufacturers found the minerals they needed (including limestone, clay, calcium, aluminum, iron and silicon) in deposits scattered throughout the high country. Production continued until local supplies of raw materials were exhausted. However, in Boulder County cement making continues today.

CHRONOLOGY

1800s	Utes use crude oil for medicines.
1859	Oil discovered near Canon City, little done because of no market.
1860-1920s	Stone quarries opened throughout the region to supply local

	building needs.
1860s-1880s	Base metals primarily mined in association with precious metals.
1880s-Present	Mines for base metals opened independent of precious metals.
1890s	Lead mining stimulated by use in smelting.
1890-1941	Marble quarry at Marble in production.
1890s-1920	Oil discoveries in Boulder County and Florence extensively developed.
1890s-Present	Cement becomes increasing important for building and pavement, production rises accordingly.
1890s-1930	Decline of stone quarries as cement replaces stone in building and pavement uses.
1910-1920	Tungsten boom in Boulder County halted by epidemics and depressed market.

LOCATION

Cultural resources related to this theme are scattered throughout the region as shown on the map. Generally, quarries and/or gravel pits are located near towns and cities in the region. Mines for zinc, lead, molydenum, and copper are found in Eagle, Pitkin, Lake, and Summit Counties primarily. Oil and natural gas activities were concentrated in Fremont and Boulder Counties. Tungsten was mined almost exclusively in Boulder County and Marble quarrying was unique to Marble, Colorado. This wide dispersal of most minerals utilized precludes generalized statements on cultural resource location as does the difficulty of recognizing base metal underground mines due to similarity with precious metal mines in the region.

CULTURAL RESOURCE TYPES

Sites include: Adit, Pit, Quarry.

Structures include: Boarding House, Boiler House, Crusher, Derrick, Headframe, Mill, Mine, Well.

Districts include: Oil Field District.

Materials include: Tools such as picks, shovels, pumps, lamps, and other implements typically associated with mining.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

Historical studies related to this theme fall into two categories: books about specific locales such as Griswold's, The Carbonate Camp Called Leadville, or Knight and Hammock's, Early Days on the Eagle, or the many books on Marble; and those studies about the mineral industry statewide such as Fell's Ores to Metals or Henderson's History of Colorado Mining. Some journal articles have recently appeared about portions of this theme. Mining of non-precious metals and quarrying in Colorado's mountains has not to date generated much historical interest. Important sources of primary information about mining and quarrying are the reports of the United States Geological Survey and United States Bureau of Mines on specific areas or kinds of minerals. These studies often provide a great deal of information that can be useful about ownership. Reports of the State of Colorado Bureau of Mining, State Geologist, and State Board of Mine Inspection are also helpful for such things as statistics on production and method of operation. The Colorado Historical Society, state archives, Denver Public Library, and Norlin Library at the University of Colorado, all maintain manuscript collections that have material pertinent to this theme. Land records and tax records at the Bureau of Land Management and County Clerk and Recorders offices also might prove useful. Of interest to this theme is Markoff's All that Glitters.

Number/Condition

The data are insufficient to determine the number, type, and condition of resources that once existed or may have existed. The data base may never be refined to the point that any exact estimates will be possible because, for example, many lead mines also produced silver, zinc or other minerals and have been identified with those minerals. Also, many stone quarries were so small or used so infrequently that their operations were never documented. Also, many exploratory and/or oil wells and coring sites were never recorded adequately. The condition of sites that still exist varies from intact to completely destroyed and reclaimed. Many sites have had their machinery and facilities sold for scrap or modernized, destroying many of the pertinent historical appliances.

Data Gaps

*Representative wells and refinery of the early oil industry.

*Correlations and totals of mines that produced one or more base metals.

*Accurate locations of all stone quarries.

Future Needs

Future surveys should include recordation of mines, quarries, and oil/petroleum facilities and further research to separate and catalog multi-mineral mines into the various categories. These projects should be given

mid-level priority and possibly be carried out in conjunction with surveys of coal mines or other projects. Documentary searches are needed to verify various products of mines, oil drilling areas, and stone quarrying activities. Such work would require the special skills of an historian trained or experienced with methods of field work.

Important Resources

Because of the wide variety of resources associated with this theme and the disparity between the condition of the resources, it is difficult to assign importance to these resources. However, those resources that substantiate the role of non-precious mineral mining in the region's development are important. Further, stone quarries and marble quarries may be important because their products were used in significant structures or by important architects. Also, resources that substantiate the impact and uses of Colorado mountain products outside the region are important. Resources which can be associated with important people (such as Charles Boettcher or others) or events connected with this theme are also important.

RESEARCH QUESTIONS

1. What resources remain that can provide information on the development of the non-precious mining in Colorado's mountains?

2. What resources remain that can provide information about the evolution of Colorado's early petroleum industry?

3. Can cultural resources contribute to the present understanding of Colorado's mountain mineral industry evolution?

4. What resources, if any, remain that can further present an understanding of the relationship between precious metal and non-precious metal mining?

PHYSICAL CONDITION

Adit: should not be filled in, and its functions should be readily apparent.

Boiler House: should have locational integrity and enough interior machinery intact to make function and method of operation readily apparent.

Crusher: should have locational integrity and enough machinery remaining to make function and method of operation readily apparent.

Derrick: should have enough machinery and superstructure remaining to make function readily apparent.

Headframe: should have locational integrity and enough of its structure and machinery left to make its function and method of operation readily apparent.

Mill: should have locational integrity and enough of its machinery left to make its function and method of operation readily apparent.

Mine: should have enough of its machinery and internal fittings to make its method of operation and type of mineral removed readily apparent.

Pit: should not be filled in and have enough of its appliances intact to make its method of operation readily apparent.

Quarry: should not be filled in (reclaimed) and have enough of its appliances intact to make its method of operation readily apparent.

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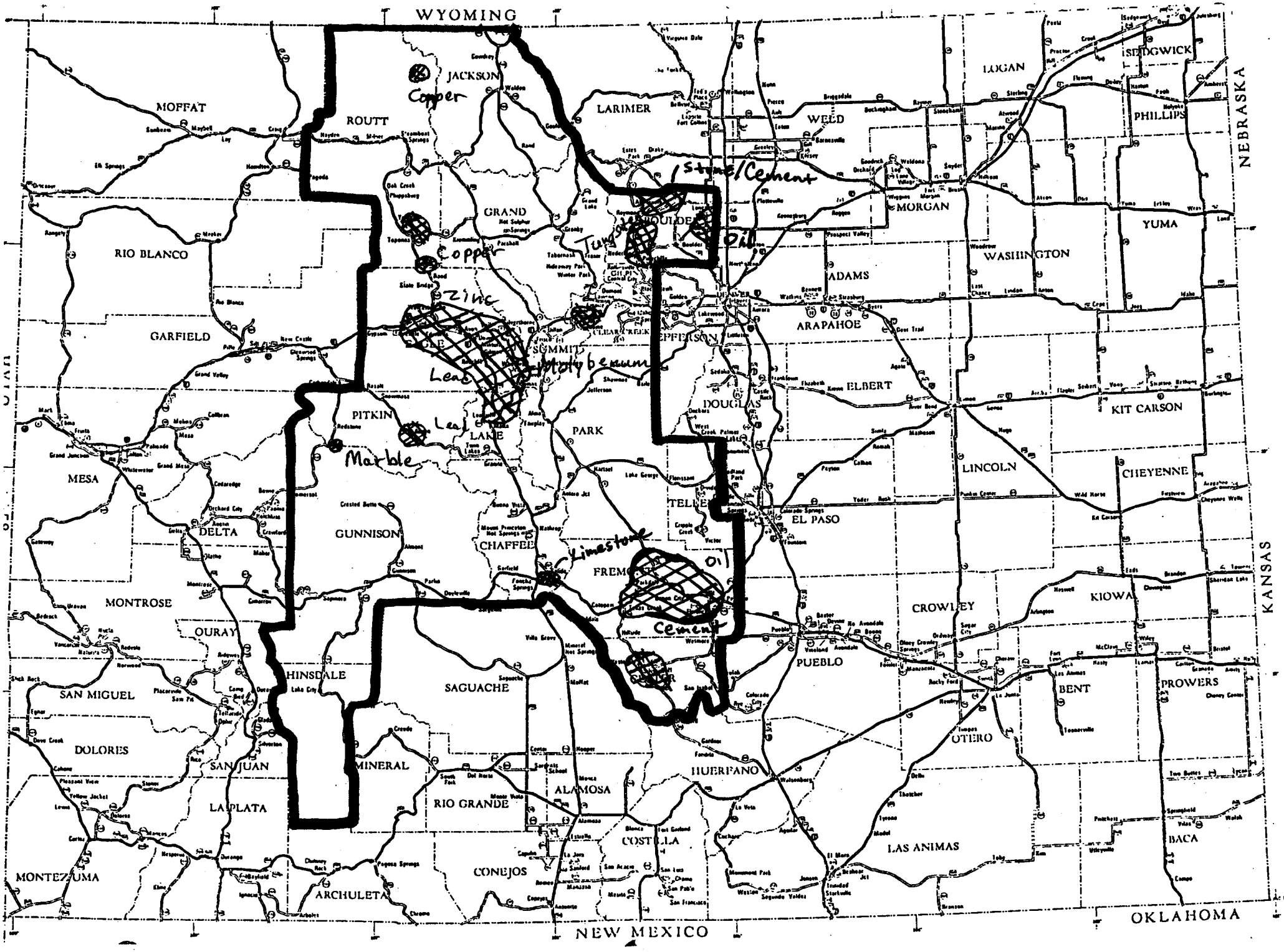

LEAD, ZINC, AND OTHER MINING

9. EARLY TRANSPORTATION (1859-1913)

NARRATIVE

The economic development of Colorado's high country was almost completely dependent upon the spread and availability of transportation. The earliest European explorers, traders, and settlers followed natural routes such as valleys and canyons, many of which had been used for centuries by Utes and other Amerindians. Once the gold rush occurred and the mining frontier spread across the mountains, miners and others evaluted their need for adequate transportation and began calling for roads to be built. Many of these early pathways were built by individuals or small companies as toll or private roads for use by freight wagons, stage coaches or mule trains. The topography of the mountains dictated routes, travel seasons, and load limits on these early routes and would continue to do so well into the twentieth century. From 1860 to 1900, much effort was expended searching for and developing paths across mountain passes such as Hoosier, Independence, or Rollins. Most travel routes were oriented east to west to connect the plains with mining camps and the Western Slope. However, some ran north and south, connecting the mountains with Wyoming or with the San Luis Valley as well as across the major parks. After the introduction of rail service, wagon roads were built as feeders for the steam pikes.

Colorado's mountains interested road builders only after mineral discoveries were made and the birth of mining camps creating a need for regular and adequate transportation in and out of the mountains. Road building in the mountains required expensive rock work to go over, around, and through the mountains. In some cases, shelves were blasted on mountainsides and cliff faces to carry the roads. Because of these high costs and a lack of taxing power coupled with the need for the roads, local and county governments were willing to grant charters and exclusive franchises to individuals who would undertake road building. These roads eventually became county or state property or were abandoned when the toll companies found it impossible to keep the pathways open because of high maintenance costs and fixed charges from mortgages or loans taken out during construction. If the potential business was not great enough to attract entrepreneurs, counties and municipalities occasionally voted bond issues to help entice capitalists. Despite the apparent potential for large profits, very few private toll road operators even became wealthy or famous. The two individuals best known in the frontier phase of mountain transport were David Wood and Otto Mears, who were both primarily involved in the San Juan, Gunnison County trade.

Travel on these early roads was precarious at best. If the trip was of any length, passengers were assured of an overnight stay at some point, usually with dirty sleeping quarters, crowded coaches and meals notoriously heavy on beans, hardtack and salt pork. To further complicate matters and worry patrons, many of the mountain roads were narrow and often the coaches seemed to be on the verge of plunging over the edge. When not terrified, travelers were jostled, shaken, and covered with dust. Muleskinners, teamsters, and drivers all shared the same discomforts as well as having to coax tired teams up and down hills. Despite these drawbacks, the stages and

wagons were lifelines to the high country mining camps and settlements until railroads arrived.

Another problem these early transporters faced was river crossings. The fast flow and rocky bottoms, typical of most mountain streams, made usable fords scarce. Instead, bridges had to be built or ferries maintained to cross the waters. Ferry operators, hired by the road companies or working independently, provided the earliest means of getting from one side of a river to the other. However, their operations were susceptible to many problems such as high water or cable breakage that could strand a boat or send it tumbling downstream. Realizing these faults, city, county, and state governments began a program of publicly-financed bridge construction in the mountains during the 1880s. By the end of the nineteenth century, there were dozens of bridges in existence crossing every major and minor waterway of the region as "state bridges" became a mark of permanence and stability for many mountain communities.

Contemporaneous with the state's road or bridge building program, rail transportation became available along the major travel routes of the region. Once these corridors were in place, road builders re-oriented their efforts to connect with the steam trains. Throughout the period from 1880 to 1908, towns in isolated areas such as Steamboat Springs, depended on wagon roads to the rails for their commerce.

While the railroads seemed to replace wagons for hauling goods and forced the animal-powered vehicles to lesser roles, the drayage industry remained strong well into the twentieth century when internal combustion replaced horses. Even with that change, many of the routes remained the same. For example, the Taylor State Road of the 1890s became U. S. Highway 6 and is presently becoming Interstate 70.

CHRONOLOGY

1800-1860	Ute and explorer trails well established.
1859	First wagon roads opened in Boulder and other counties.
1860-1870	Roads built into mountain areas to connect plains and mining camps.
1873	Otto Mears begins building toll roads in Lake City area from Saguache.
1870-1880	Road system expands throughout region as mining frontier and settlement spreads.
1880-1890	Railroads spread across mountains and wagon roads shift to feeders for the railroads.
1885-1900	State bridge building crews very active, ferries are replaced.

1892-1910 State begins major road building program to unify the state.

1913 Last railroad completed and road network finalized until auto age.

LOCATION

The early transportation roads were located to provide transportation between the major mountain towns and to the plains and later to provide access to railways. The locations of known cultural resources related to this theme is reflected by current travel routes, primarily U. S., state, and county highways that connect population centers today as they did historically. In addition, other historic travel routes in the mountains can be found today as recreation roads, hiking trails, and off-road vehicle paths. Others not in present use can and have been located by researching historic maps and through aerial photography. At one time or another, nearly every major river drainage and valley as well as pass was used or attempted as a travel route. Additionally, along the roadways, cultural resources such as stage stations, stables, and other facilities can be found.

CULTURAL RESOURCE TYPES

Sites include: Road, Trails.

Structures include: Barn, Bridge, Corral, Livery Stable/Stable, Roadhouse, Tollgate/House, Way Station, Ferry.

Materials include: Harness, carts, wagons, saddlery, stage coaches, and other implements associated with animal-powered transport.

QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

The level of professional interest in early transportation to Colorado's mountains has been great over the years leading to a large number of studies, either directly about transportation or about parts of the region that include sections on movement of people and goods. One of the first goals of local town boosters was to secure a wagon, toll, or other road to their locale. Foremost studies include Oscar Winther's The Transportation Frontier, H. P. Walker's The Wagonmasters, and the volumes done about Wells, Fargo & Company. While these generally cover areas much larger than the Colorado mountains, they provide a great deal of information pertinent to this theme. Two works that deal very specifically with the mountains are Michael Kaplan's dissertation on Otto Mears and Carla Neuhaus, "Transportation to Colorado, 1858-1869," a Masters thesis at the University of Colorado. Also useful as sources of information are Hafen's Colorado and Its People and Frank Hall's History of Colorado. Dairies, journals, and contemporary periodical articles offer good first-hand accounts of travel by wagons and stages and should be consulted when researching this theme, as should map collections and county tax records. One of the unfortunate factors is that most histories and

contemporary accounts place heavy emphasis on railroads and make it appear as if wagons ceased to operate once the iron horse came. This not only makes research on this theme difficult, but also tends to give a slanted picture of history. Manuscript collections at the University of Colorado, Colorado Historical Society, and Denver Public Library contain material useful for research on this theme, and should be consulted.

Number/Condition

The data are insufficient to determine the number and types of resources that once existed or may have existed. Some roads are well documented, such as Otto Mear's toll roads or the wagon road over Rollins Pass. The routes of other roads that were later abandoned such as the road from Central City to Nederland have been lost, but might be traceable from aerial photographs. In additional cases, the location of the original wagon roads were obliterated by reuse of the route by railroads and later by highways. Facilities, such as stage stations, may or may not still exist since many were nothing more than large residences. Livery stables and animal-tending facilities also may or may not still exist, usually being adaptively used by later generations. The condition of most present resources, except wagon roads, is deteriorated. Wagon roads vary from readily distinguishable to paved or grown over.

Data Gaps

*Comparative studies of wagon road routes before and after the arrival of a railroad at a given locale.

*Representative toll gate structures for toll roads.

*Early example of stage station and/or livery facilities.

Future Needs

While the routes of many of the toll/wagon roads are known in a general way, such as what points were connected, a comprehensive aerial and/or pedestrian survey should be conducted at some future date to locate, if possible, the exact routes taken by these early roads. Field time and aircraft costs should be minimized by extensive documentary research prior to commencing outdoor work. The results of such an effort would greatly aid historical understanding and allow associations between this theme and others.

Important Resources

The predominant role transportation played in the development of the Colorado mountains makes documentation of this role significant for explanatory or interpretive purposes. Also, because most of the resources that once existed are generally deteriorated or destroyed, resources in good condition or even in an identifiable condition are important.

Because few are known to exist, any building or structure with integrity which is associated with the development, growth, or operation of the early roadways of Colorado's mountains is important. Those early transportation

resources including roads or structures associated with important people (such as Otto Mears, David Wood, or others) or with important events in the history of early transportation are important. Roads displaying significant technological innovation or techniques are important. Representative and unique examples of transportation roads and associated structures as sites or districts would be important. A road or road corridor district may be of local significance if it influenced the location and growth of the town.

RESEARCH QUESTIONS

1. What resources, if any, can substantiate the role and impacts of transportation on the early socio-economic development of Colorado's mountains?

2. What resources, if any, can substantiate the thesis that traditional transport routes were used by many different modes of transportation?

3. What resources, if any, can help explain or clarify the interrelationships between roads and railroads?

4. What resources, if any, can help in the development of a comprehensive understanding of the early mountain transport network?

5. What resources, if any, can help substantiate the role of toll roads and/or bridges in the early development of the region?

PHYSICAL CONDITION

Barn: should have enough physical integrity remaining to make its function readily apparent and be on its original site.

Bridge: should have physical integrity to make function and method/material readily apparent. Should be on original or historic use site.

Corral: should have physical integrity and be associated locationally with other structures such as barns, stables, or stage stations.

Ferry: should have enough of its machinery, towers, and/or appliances, if not vessel, intact to make function readily apparent and be in historic use location.

Livery Stable: should have enough physical integrity remaining to make its function readily apparent and be on its original site.

Road: should have enough physical integrity remaining to make use apparent, dimensions and method of construction readily apparent.

Roadhouse: should retain enough physical integrity to make function

readily apparent, be in historic use location, and on or near verifiable historic roadway.

Tollgate: should retain enough physical integrity to make function readily apparent, be in historic use location, and on or near a verifiable historic toll roadway.

Trail: should be readily recognizable and its dimensions and use readily apparent.

Way Station: should have enough physical integrity to make function readily apparent and be associated with other pertinent structures such as corrals or barns.

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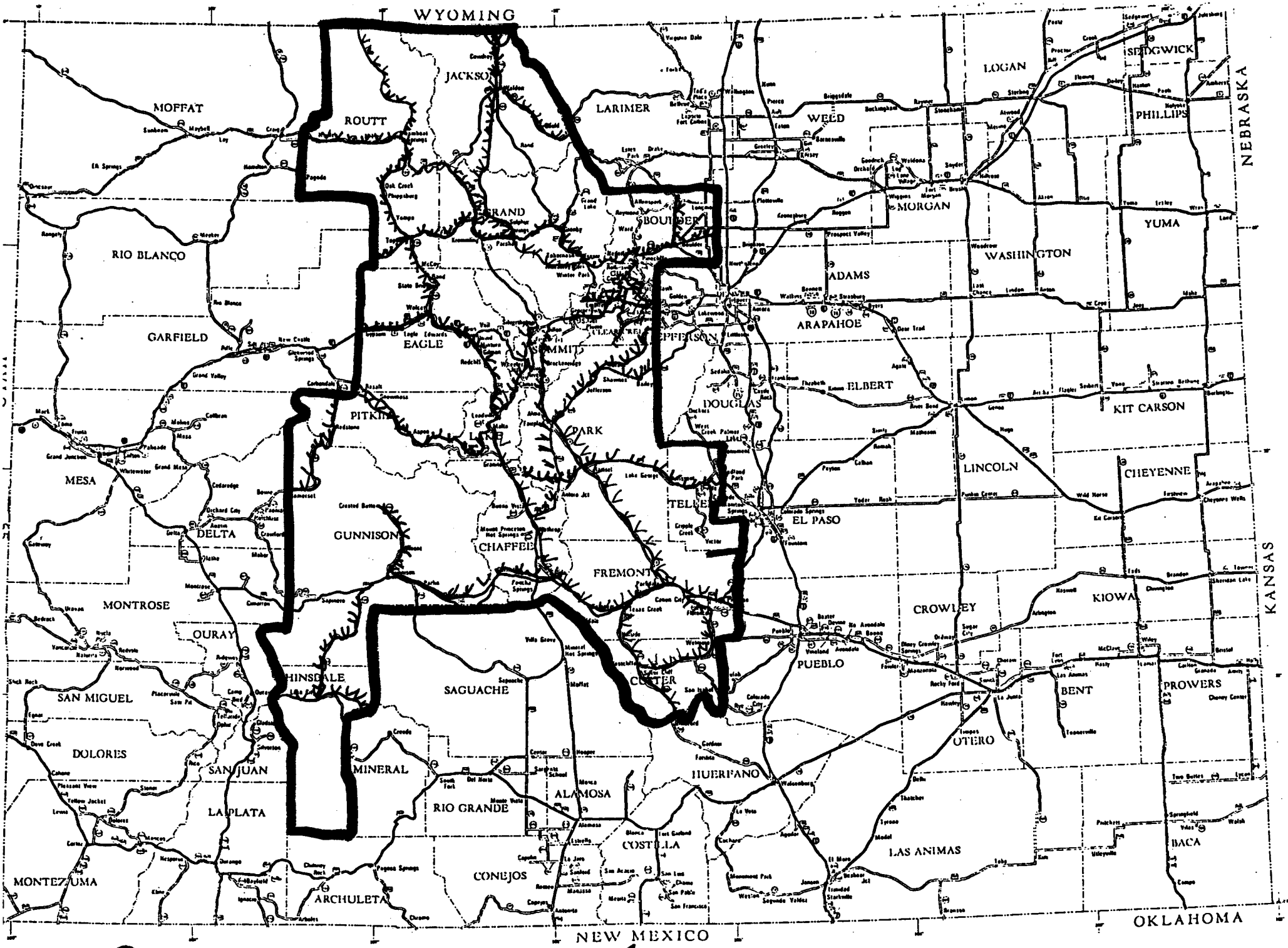


EARLY TRANSPORTATION

10. RAILROADS IN THE HIGH COUNTRY

NARRATIVE

No other single theme had greater influence on or was more influenced by the economic development of the Colorado mountains than the area's railroad network. Rail connections were the outstanding symbol of modernity for town builders and promoters during the late nineteenth century. Towns and regions rose and fell depending on whether or not the iron horse blessed them with its presence. Despite all the promoting and booming early Coloradans did, chances are that rails would not have been laid, especially not to the extent they were, without the lure of the rich mining traffic. The mineral trade encouraged rail builders to face the obstacles inherent in mountain railroading. Attempts to capture those rich cargoes led more than one individual to spend his millions trying to conquer the hills.

The first problem would-be rail magnates faced was to find practical routes. As early as 1853 with the results of Gunnison's survey, Colorado's Rockies were seen as unusable for railroads. These discouraging findings continued during the 1860s, as Governor John Evans, William N. Byers and others hired engineers to find rail routes. By 1870, despite all their promotion work, Coloradans began to realize that conquest of the mountains would require extraordinary financial and engineering efforts. Denver became a center of the drive to build a mainline railroad across the mountains. This goal was not accomplished to that city's satisfaction until 1934 with completion of the Moffat Tunnel route.

Others with less lofty goals did form companies to penetrate the mountains during the first fifteen years after the gold rush. These corporations sought to connect the mountain mining camps with the front range. During the late nineteenth century, the rails reached out further and further west as new discoveries of precious minerals occurred. Among companies organized to tap the mining trade were the Colorado Central and its followers; the Denver, South Park and Pacific and its predecessors; the Denver, Boulder and Western and its predecessors; the Crystal River and San Juan and its predecessors; the Colorado Midland; and the Florence and Cripple Creek. Foremost and most famous of the prospecting railroads was the Denver and Rio Grande Western. It was once said that if a farmer in the next valley over from a Rio Grande line had a load of pumpkins, the company would build a branch line to pick up the produce. This may have been something an exaggeration, but the mountains attracted the attention of many builders, such as William Jackson Palmer of the Denver and Rio Grande.

Palmer was once of the few railroad builders who accomplished what he hoped to do. Once the rail building competition to preempt the route through the Royal Gorge (giving access to the Colorado mountains through the Arkansas River Valley) was settled in Palmer's favor, he pressed ahead with railroad construction from Canon City to Salt Lake City providing connections to

mountain mineral markets such as Leadville. Beyond Palmer's work on creating a transmontane mainline for the region, he also pioneered the use of the narrow gauge in Colorado. By 1865, most American railroads were being constructed to standard gauge with 4 feet 8½ inches between railheads. Palmer and his associates felt they could lower construction costs and more easily build into the mountains using the narrow gauge of 3 feet between the railheads. Eventually the 3 foot guage became predominant for mountain railroads. Only three lines into the area were built originally in standard gauge.

Additional engineering techniques and innovations were required to construct railroads in the mountain regions. One problem the railroaders faced in Colorado's high country was the lack of usable passes and the requirement to build tunnels to avoid operating railroads in the severe winters on the few usable high elevation passes. The state's mountains became famous for the snow that winters could dump on the rails. Snowsheds and tunnels became a necessity in order to avoid this problem. Many railroads built or tried to build tunnels including the Denver and Rio Grande; the Colorado Midland; the Denver, South Park and Pacific; the Atlantic-Pacific tunnel near Silver Plume; and later, the Denver and Salt Lake Railway built the Moffat Tunnel, the longest and most famous. Each road not only tried to build a major tunnel through the Continental Divide, but also bored hundreds of shorter tunnels to penetrate barriers and to avoid too many curves or bridges. In some areas, shelves had to be blasted out of mountainsides in order to build the railroad bed. In other cases, the engineers created circuitous paths in order to conquer the terrain, such as at the Georgetown Loop complex. Many companies failed because of the topography, yet such setbacks did not stop others from trying to build into the region. The creation of rail companies became a craze for many entrepreneurs. At one time or another, one or more rail companies had plans to build on nearly every usable pass and valley in the region.

By the close of the nineteenth century, most of the practical routes west had been utilized; and, yet, Denver still lacked a direct railroad to the west. The final great rail project of the state was undertaken in 1902 to rectify this situation by the Denver, Northwestern and Pacific, founded by David H. Moffat, Jr. Moffat, like many others who attempted to conquer the mountains with rails, lost his fortune in the endeavor to construct the railroad. Eventually, with state and federal aid, the dream was completed. The Moffat Tunnel and Dotsero Cut-off connected Moffat's road with the Denver and Rio Grande at Dotsero, Colorado, completing the last major transcontinental route in the United States in 1934 and fulfilling Denver's wishes for a direct western outlet.

The railroads were built in Colorado's mountains with millions of dollars provided by financiers and the sweat of many workers. Many different ethnic groups were employed by the rail companies. Americans and Irish were most commonly hired. They were followed in number by other Europeans, especially Scandanavians, Italians and Greeks. Only a few Chinese crews were ever hired because the rail companies sought not to antagonize the local population. When orientals were hired, they were sent to isolated areas for construction work. By the same reasoning, it was not until the twentieth century that Mexican-Americans were hired to work on

the railroads in any number.

The impact the railroads had on the region cannot be underestimated. Civilization rode into the mountains on the steamcars, keeping the area up to date on news and trends as well as making nationally-marketed goods readily available. Rail transportation allowed lower grades of ore to be profitably mined by lowering shipping costs to smelters. No major coal mine was located away from rails. Without the railroads, much of the region would not have developed as quickly and extensively as it did. They made towns more readily available to outsiders, and towns often relocated their business districts to take advantage of the transportation system. The iron horse further served as the major transportation corridor with a network of wagon roads extending their impact far beyond the locales the steel bands touched. Eventually, these same roads became highways, and the competition from trucks as well as decreased mine traffic caused many rail lines to be abandoned.

CHRONOLOGY

1853-1865	Surveys for railroads across mountains.
1865-1870	Initial plans and preliminary construction of railroads into mountains.
1870-1895	Narrow gauge rails used in Colorado.
	Majority of roads built.
	Many attempts at tunnel building.
1870	First railroads rach Denver and the city becomes a rail hub of the West.
	Denver & Rio Grande starts construction.
1900-1945	End of mining leads to abandonment of many rail lines to the camps.
1902-1934	Denver, Northwestern and Pacific (Moffat Road) built, completing last major transcontinental route in the U.S.

LOCATION

Cultural resources associated with the spread of railroads in Colorado's mountains can be found in every county of the region. The number and concentration of such resources, however, varies from county to county. Also, most towns in the region probably currently contain or at one time contained cultural resources pertinent to this theme. The operation of railroads in the mountains required fuel and water facilities at shorter intervals than on flatlands. The interval was usually about five to seven miles. Often the facilities were at isolated locations along the rail line.

CULTURAL RESOURCE TYPES

Sites include: Ash Pits, Railroad Bed, Tunnels, Bridges.

Structures include: Car Shops, Coal Chute, Depot, Engine House, Freight House, Loading Dock, Section House, Signals/ Signal Tower, Tunnels, Water Tower/Standpipe.

Districts include: Yards, Sections of the Rail line with associated structures

Materials include: Ramps, Switch Stands and Tools used to operate and maintain a railroad as well as the Vehicles and Locomotive used on the rails to move people and goods.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

The history of Colorado's mountain railroads is very extensive. Over the past 110 years, only mining has had more written about it than the railroads, and this situation may change within the foreseeable future. With so many studies, one should expect the quality to vary widely; and it does. The five most reliable studies are Robert G. Athearn's Rebel of the Rockies (D&RGW) and Union Pacific Country; Richard Overton's Gulf to Rockies (C&S); M. C. Poor's Denver, South Park and Pacific; and Morris Cafky's Colorado Midland. Another very useful work is Tivis Wilkin's Colorado Railroads. In addition to these works, nearly all the other companies that ran trains in the high country have been written about as have many of the rail builders, particularly Palmer, Hagerman and Moffat. Also, engineering feats such as tunnels have been treated by writers. The Alpine Tunnel of the South Park line has been studied, but no tunnel has been studied in more detail than the Moffat Tunnel, particularly in Edgar McMechen's massive two-volume work. The large number of articles in The Colorado Magazine, the Trail and in other journals further contribute to the available data base. Manuscript collections at the Colorado Historical Society, Denver Public Library, Colorado College, and Norlin Library at the University of Colorado all provide information or collections pertinent to this theme. Interstate Commerce Commission hearings and rulings, federal railroad retirement board publications and archives of the State Archivist all contain readily accessible information for researchers. Probably no other phase of the early development of Colorado's mountains is as well documented as the construction and operation of the region's railroads.

Number/Condition

The data are insufficient to determine the number, type and condition of the resources that once existed or may have existed for this theme. However, if each depot, water tank, switch building, and other structures along the rail lines are included, the number undoubtedly goes into the hundreds if not thousands. Part of the confusion about the total possible number of resources comes from the multiplicity of resources on reroutings, short cuts, or tunnels, as well as inaccuracies in interpretation of data. Also, many

companies that were chartered were never built or put into operation, often leaving partially completed roadbeds that were later used by wagons or highways. In the case of the Colorado Midland through part of Pitkin County, its abandoned roadbed became a highway in 1920, and improvements to that road have obliterated almost all evidences of the railroad. The condition of existing resources varies from intact and still operating to completely destroyed. Weather, highway and recreational use, vandals and souvenir hunters have been the greatest threats to cultural resources associated with this theme.

Two railroad lines which lie in the mountain region have been recorded in the Colorado Inventory Files for their entire length, including the railbeds, spurs and associated structures. These are the Denver, Boulder and Western Railway Historic District (the Switzerland Trail); and the Denver, Northwestern and Pacific Railway Historic District (the Moffat Road). Both of these are on the National Register of Historic Places. Portions of other railways have been recorded such as the Denver and Rio Grande; Midland; and the Denver, South Park and Pacific railways. In addition, isolated railroad structures such as depots or roundhouses in towns and cities have been recorded.

Data Gaps

*The diversity of types of sites and their wide array of conditions make identification of significant data gaps virtually impossible.

*Representative camps and resources associated with minorities who worked for the railroads.

*Identification of all routes and proposed routes for railroads in the mountains.

*Identification of all facilities, sidings and the like that could or have been misidentified.

Future Needs

Comprehensive surveys to properly identify and classify all railroad resources in the mountains region should be conducted at some future date. These should include extensive research of the documentary records, aerial photography and field work and would require the special skills of historians, historic archaeologists and aerial interpretators. Also, surveys to verify minority/ethnic group employment with railroad companies would be useful.

Important Resources

Because of the large number of sites associated with this theme and the relative importance of railroads to the region's development, the number of resources that substantiate this role is very large. However, since many are deteriorated, only the ones in good condition or of undisputable significance should be given extra consideration. Also, these sites that have

unique engineering features that represent the role Colorado rail designing played in national rail evolution should be considered as important.

RESEARCH QUESTIONS

1. What resources, if any, remain that provide information about the role of railroads in the socio-economic development of Colorado's mountains?

2. What resources, if any, remain that provide information about engineering and technological developments on Colorado mountain railroads?

3. What resources, if any, remain to clarify the relationship of railroads and development of a regional transportation network?

4. What resources, if any, remain to clarify/verify the role of ethnic groups and minorities in the building and operation of Colorado mountain railroads?

5. What resources, if any, remain to clarify the role of entrepreneural talent and competition in the growth and operation of Colorado mountain railroads?

PHYSICAL CONDITION

Ash Pits: should not be totally reclaimed and be associated with other extant sites/resources such as rail yards.

Car Shops: should have enough integrity to make its function readily apparent.

Coal Chute: should have locational and physical integrity enough to make function and method of operation readily apparent.

Depot: should have physical integrity to make historic function and dimensions readily apparent.

Engine House: should have physical and locational integrity to make historic functions and dimensions readily apparent.

Freight House: should have enough physical integrity to make historic function and dimensions readily apparent.

Loading Dock: should have enough physical and locational integrity to make function and dimension readily apparent.

Railroad Bed: should have enough physical integrity to make historic function, dimension and use readily apparent.

Section House: should have enough physical integrity remaining to make historic function and dimensions readily apparent.

Signals/Signal Tower: should have physical and locational integrity to make function readily apparent.

Tunnels: should have enough physical integrity to make dimensions and method of construction readily apparent.

REFERENCES

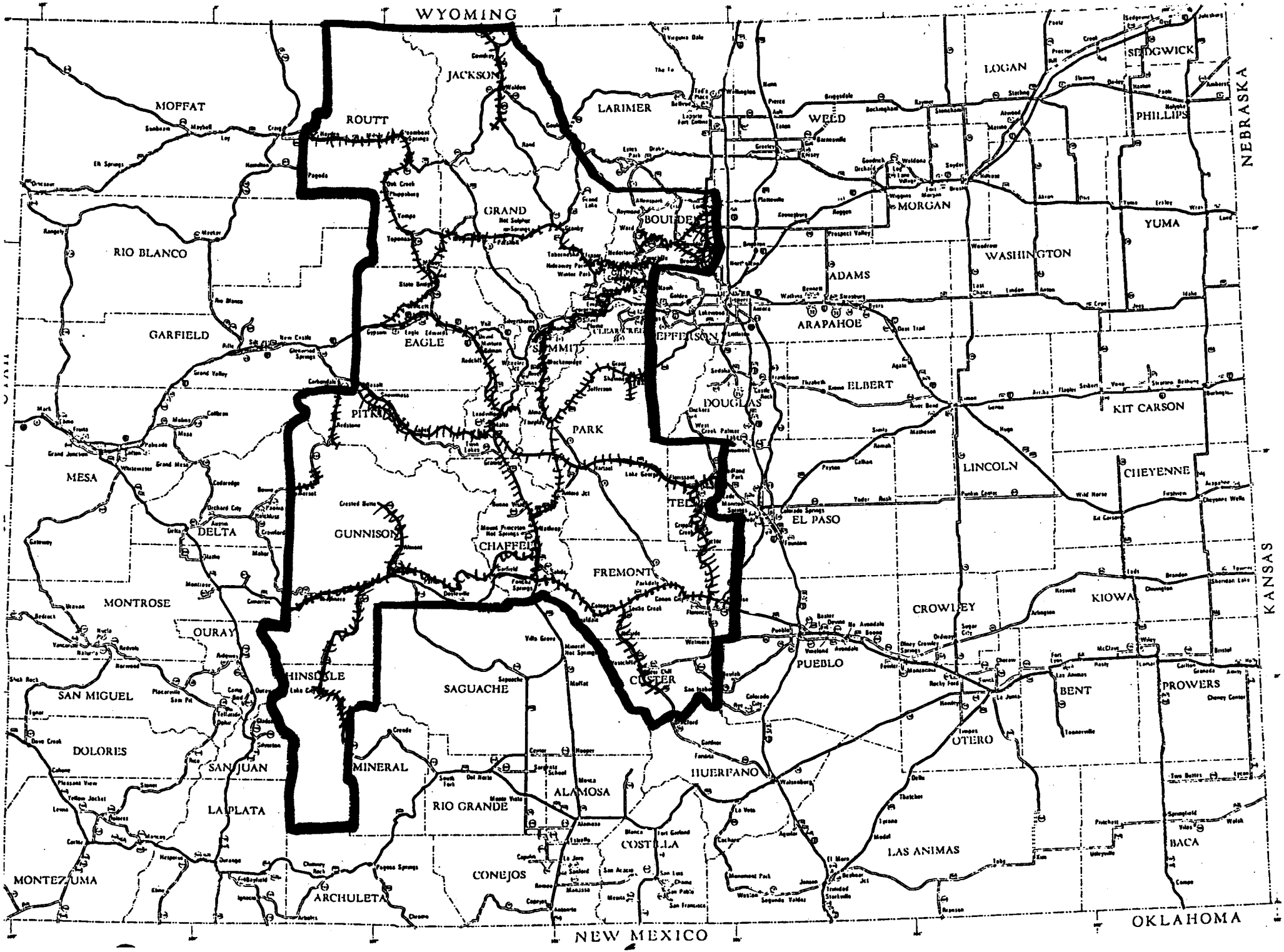
Robert Reigel. The Story of Western Railroads. Lincoln: University of Nebraska Press, various dates.*

Glen Quiett. They Built the West, An Epic of Rails and Cities. New York: Appleton-Century, 1934.

Oscar O. Winther. The Transportation Frontier. Albuquerque: University of New Mexico Press, 1974.*

In addition, consult the card catalog under specific railroad names for more information.

*Available in Paperback.



MOUNTAIN RAILROADS

11. HIGH COUNTRY LOGGING, 1859-1945

NARRATIVE

Two developments in the Colorado mountains and surrounding areas led to the creation of a lumbering industry in the high country. These were mining and the growth of a railroad network. Both were large consumers of logs and finished wood. The lumber industry dates to the gold rush of 1859 when enterprising men brought small sawmills with them, thinking that any new settlement would require wood for buildings, sidewalks and fuel. From these beginnings, lumbermen spread throughout the high country to take advantage of the natural timber stands. Their activities were unregulated until the end of the nineteenth century when federal timber reserves were created, and lumbering operations on public lands could only be conducted by permit. However, by that time, many of Colorado's mountains had been denuded of timber and badly eroded.

Mining activity demanded great amounts of timber for many uses from bracing tunnels to housing to making charcoal, a fuel used for refining in the mining industry until coal had become readily available. The loggers who operated at and near mining camps often clear cut the hillsides and, in some cases, the camp leadership and newspapers bemoaned the disappearance of the easily harvested wood. Where timber was available, however, much was converted into charcoal for use by boilers and refineries. Charcoal being less bulky than its raw material could be produced at distances from consumers. Charcoal making was generally carried on by small companies or individuals. Even though the mining frontier consumed millions of board feet of wood, their usage was small compared to the railroads.

As early as 1867, when the Union Pacific Railroad first reached Cheyenne, Wyoming, tie suppliers for the road began working the forests of Colorado's northern mountains. These timbermen used much more complicated and costly techniques than their mining camp associates. Crews of 25 to 100 people manned the lumber camps to cut, trim, and prepare the logs as well as saw them into ties. Popularly referred to as tie-hackers, they based their operations along the tributaries of streams and later along rail lines so the forest products could be transported to consumers. The typical riverside operation involved construction of temporary dams to back up the water. The logs were then floated in the pond until enough water and wood had accumulated. Then the lumber men breached the dam and sent the logs tumbling downstream to sawmills and other consumers. Usually this operation took place in spring or early summer to take advantage of high water. The high country loggers often had to pay for damages the log movements did to headgates and other irrigation facilities. Eventually, some county governments required lumber companies to post bonds to cover such damages.

Within the lumbering areas, roads were built, shacks and other buildings put up, and sawmills and flumes created to facilitate the production and movement of logs from forest to mill. The machinery was typically hand, water- or steam-powered until into the twentieth century when limited amounts

of gasoline fueled equipment appeared. Most of the high country logging operations were not meant to be permanent, and operations were relocated as available supplies were exhausted. By and large, the companies did not do finishing work on lumber such as planing or drying. These were carried on elsewhere, such as at Hermosa (Tie Siding), Wyoming, or simply not done. The relatively small size of most Colorado high country logging operations precluded the construction of entire towns or the evolution of communities depending solely on the wood industry for their livelihood as happened outside the mountain region around Pagosa Springs and in northern New Mexico. Despite this, many towns in areas where trees were available had sawmills during the height of logging operations during the 1880s.

The 1880s marked a rapid decline in high country forest product activities. This came about for two reasons. First, many of the easily harvested stands were depleted and had not regrown. Secondly, there was a growing concern by people throughout the nation and in Colorado (especially by people on the eastern slope) about the rapid degradation of natural resources. As a result, a conservation movement took place. At the same time, a change in federal land laws during 1891 allowed the President to withdraw large tracts of timber from private entry and proclaim them to be national timber reserves (National Forests) (see the Federal Activity theme). Within these areas, lumbermen were initially prohibited and later closely regulated in their cutting activities. This forced many small timber companies out of business, and those that remained had to greatly cut back operations.

In the twentieth century, logging continued in various parts of the mountains as tracts of private land were cut and federal timber was harvested by permit. This continued throughout the early years of the twentieth century. By 1930, and the advent of the Great Depression, only a few lumber companies remained active in Colorado's mountains.

CHRONOLOGY

1860-1880	Lumbermen followed miners through the mountains to supply the wood needs of the underground workings.
1867	Railroad reaches Cheyenne, Wyoming, and tie-cutting begins in northern Colorado mountains.
1870s-1885	Tie/wood floating in streams and rivers most used transport method.
1891	Forest Reserve laws pass Congress and many reserves set aside in Colorado mountains over the following 25 years. This marks end of free hand for lumbermen.
1910-1930	Reduced number of small operators continue logging parts of the Colorado high country.

LOCATION

Cultural resources associated with early lumbering operations can

be found scattered throughout Colorado's mountains. Presently, most identified sites are in Jackson, Routt, Grand, Hinsdale, Lake, and Summit Counties. Because of the portable and self-destructive nature of many of the resources associated with this theme, large numbers of cultural items were not always left to mark the industry's presence in Colorado's mountains.

CULTURAL RESOURCE TYPES

Sites include: Chip Pile, Cutting Site, Skid Road.

Structures include: Chip Incinerator, Dam, Flume, Log Pond, Planing Mill, Saw Mill, Charcoal Oven.

Materials include: hand, animal or mechanically-powered tools used in the cutting and conversion of logs into usable lumber such as one- and two-man saws, gaffing tools, log sleds, skidders, and large circular or band saws.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

Presently, the Colorado mountain logging industry has not inspired large numbers of historical studies. Rather, researchers must consult county or local histories to piece together what information is available. Also, some studies and records of the local conservation movement in Colorado can be useful, such as McCarthy's Hour of Trial. These efforts usually catalog the uses and abuses of the forest resource before the federal forest reserves were created. Much of their information is based on records of the Colorado State Forester and federal authorities, primarily those of the state forest office and the federal government (Department of the Interior). Other reliable sources include county tax and land records. Because much of the lumber was used by mining and railroad companies, their records often prove helpful as are some railroad history books that specify where ties and other wood products were shipped from or used. The manuscript collections in Norlin Library at the University of Colorado, the Colorado Historical Society, the Denver Public Library, as well as the state archives, all have documents that might prove helpful. Also, records and early histories done by the United States Forest Service have some useful insights into the nineteenth and twentieth century utilization of the region's forests. To a lesser degree, Bureau of Land Management foresty documents and records also have some information. Possibly of the most utility in the study of this topic is William Wroten's 1956 dissertation at the University of Colorado, "The Railroad Tie Industry in the Central Rocky Mountains."

Number/Condition

The present data base is inadequate to determine the number of resources that once existed or may have existed in association with this theme. Over one hundred resources have been recorded in cultural resource surveys of the region. However, the majority of these are roads and other more permanent type resources such as charcoal ovens, not the portable machinery and camps associated with the industry. Further, many of these areas have

been used for grazing and recreation that has led to degradation of the resources. The condition varies from some lumber mills still in use to completely destroyed and burned over areas. The majority of the resources associated with this theme in the state inventory files were recorded in Forest Service surveys dating to 1976 and 1977.

Data Gaps

* Representative tie cutting camp.

* Representative logging dam and flume system.

* Cumulative totals and accurate maps of commercial logging activity in the high country.

*Representative examples of early vegetation manipulation.

Future Needs

Surveys specifically to find on-the-ground evidences of early logging in Colorado high country should be undertaken at some future date. However, a special effort for this purpose only should not be undertaken. Rather, such surveys should be conducted in conjunction with ones for other themes, such as conservation, to help increase the benefits of such an undertaking. Such surveys would require the special skills of the historian and historic archaeologist to minimize field costs and have sound research of documentary evidence.

Important Resources

Because of the small number of early lumbering complexes presently recorded and likely to be adequately recorded and identified through documentary research, each complex should be considered significant. Because of the lack of logging sites from the late nineteenth century, those that still retain buildings or other facilities should be considered important. The roads and other changes on the landscape are important if they can help document or indicate the size of logging operations. Other resources associated with this theme may be important for their archaeological potential to document or explain early logging activity in Colorado's high country.

RESEARCH QUESTIONS

1. What resources, if any, can document or explain the technology of logging as practiced in Colorado's high country?

2. What resources, if any, can document the extent of logging in Colorado's high country?

3. What resources, if any, can offer further evidence of the condition of high country forests at the time of the 1890s forest reserve controversy?

4. What resources, if any, can offer any modifications or re-interpretations of the idea that by 1890 Colorado's mountain forests were severely depleted and/or almost ruined by over-logging?

PHYSICAL CONDITIONS

Chip Pile: should be in situ and have experienced no or minimal surface disturbance so that any historic archaeological evidence will retain integrity.

Chip Incinerator: should retain enough physical integrity to make function, method of operation, and materials/methods of construction readily apparent.

Cutting Site: enough slash and stumps to remain, even in new growth, to make borders and sizes of trees removed readily apparent.

Dam: same evaluation standards as chip incinerator.

Flume: same evaluation standards as chip incinerator.

Log Pond: may or may not contain water but enough evidence of historic use and man-made features should remain to make function and dimensions readily apparent.

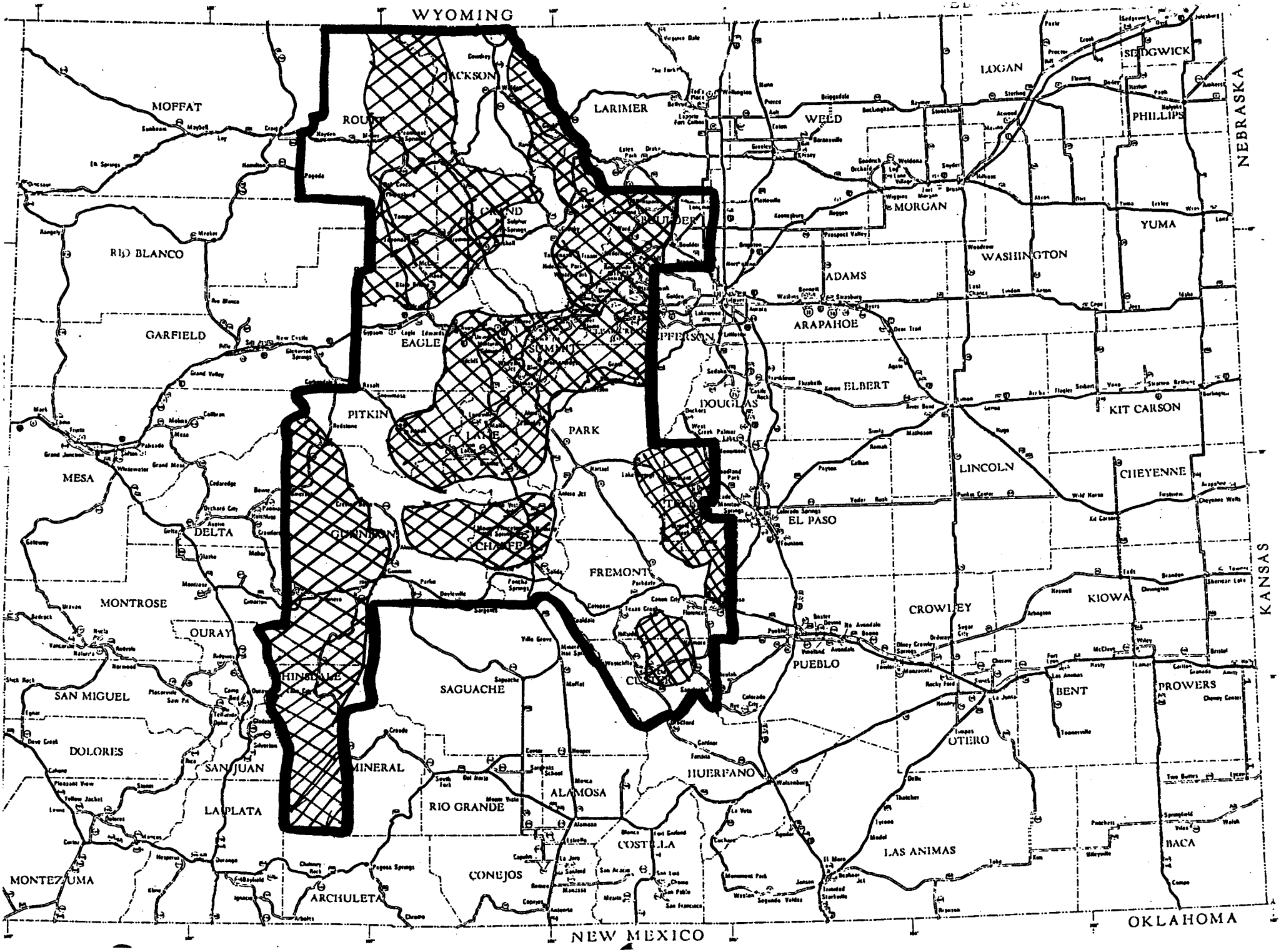
Planing Mill: same evaluation standards as chip incinerator.

Saw Mill: same evaluation standards as chip incinerator.

Skid Road: should retain enough physical integrity and/or use marks to make function, dimensions, and method/materials of construction readily apparent.

REFERENCES

Ann Johnson's reports on areas of national forests in northern Colorado and William Wroten, "The Railroad Tie Industry in the Central Rocky Mountains," Ph.D Dissertaion, University of Colorado, 1956, are the best sources presently available.


WYOMING
NEBRASKA
KANSAS
OKLAHOMA
NEW MEXICO
JACKSON
MOFFAT
ROUTT
LARIMER
WELD
LOGAN
SEDGWICK
PHILLIPS
MORGAN
YUMA
RIO BLANCO
GRAND
BOULDER
WASHINGTON
ADAMS
GARFIELD
EAGLE
SUMMIT
JEFFERSON
ARAPAHOE
ELBERT
KIT CARSON
PITKIN
PARK
DOUGLAS
LAKE
LINCOLN
CHEYENNE
MESA
DELTA
GUNNISON
CHAFFEE
EL PASO
FREMONT
MONTROSE
OURAY
CROWLEY
KIOWA
HINSDALE
SAGUACHE
CUSTER
PUEBLO
SAN MIGUEL
BENT
PROWERS
DOLORES
SAN JUAN
MINERAL
HUERFANO
OTERO
LA PLATA
RIO GRANDE
ALAMOSA
COSTILLA
LAS ANIMAS
BACA
MONTEZUMA
CONEJOS
ARCHULETA

LOGGING

12. HIGH COUNTRY FARMING AND RANCHING

NARRATIVE

Colorado has been a leader in western agriculture since the 1860s but farming in the state is generally considered in association with the Great Plains or Western Slope with little thought given to the high country. Despite this many have tried and succeeded at growing crops and livestock in the region. One factor that has controlled agricultural pursuits in the region more than any other is the natural environment. The area has a short growing season, greatly varying precipitation rates and limited quantities of tillable land. Even these have not deterred man from attempting to convert the area into an agrarian paradise.

The first farmers of the region usually were disgruntled miners and prospectors. Not finding gold or silver, many of these people fell back on their previous training from midwestern or southern farms and reasoned, quite correctly, that miners were a ready group of consumers for anything that could be grown. Later, as some farmers and ranchers found they could not support themselves by agriculture alone, many worked part of the year in the region's mines to supplement their income. Hand-in-hand with crop raising the early agrarians found that livestock, primarily cattle, sheep, and horses, could be raised in the area. Records of domestic herds in South Park date as early as 1859 and 1860, and as the mineral frontier spread so did farming during the 1860s and 1870s.

By the 1870s people were moving into the region to take up land and supply crops and meat to mining camps if they were close by. In other "isolated" areas such as Steamboat Springs or Jackson County, homesteads were established which practiced a modified subsistence agriculture in order to fulfill their own needs. Any surplus production was bartered or sold to raise cash. Many of these people became both farmers and ranchers, growing crops and hay and keeping herds much larger than those typical of a farm operation. This mixed business continued throughout the period until 1945. Often one part or another of the activity depended on market and weather conditions.

Ranching became important in the major mountain parks (North, Middle, South) and Upper Arkansas Valley by 1872. These operations raised cattle, sheep, horses, mules and goats. Livestock and ranchers came into the region from the east, north, and south. Following practices typical of the 1870s and 1880s, these early ranchers allowed their animals to roam free in the parks and valleys. To keep forage available many started the practice of using alpine meadows during the summertime and moving herds along stock trails to lower elevations for the winter. The forage problem and demands for feed led to the early use of hay made from the abundant natural grass supply not only to support ranch stock but also for sale in

mining camps to feed mules and horses used there. Eventually cultivation of hay (domestic) became a major part of the high country's farm economy.

After the establishment of National Forests, starting in 1891, open range ranching was replaced with more centralized and controlled operations to increase output. This was furthered when regulations for grazing on federal lands were established, requiring premittees to own proportionate amounts of land in relation to the number of animals they sought to keep on the forests.

Ranching, traditionally synonymous with cattle raising, also included sheep tending in the high country. Much of the environment was well suited to lamb growing, but as the number of cattle and sheep both increased during the late nineteenth century, competition for forage also rose. This led to open conflicts and violence between cattlemen and sheep owners. The tensions were increased because most stockmen took advantage of racial prejudices on occasion to kill, injure or run off th shepards. Even in face of such opposition sheep raising continued throughout the period in Colorado's mountains.

Farmers faced some of the same opposition from ranchers who sought to control the land, but because many individuals were involved in both occupations, farming came to share in the area's economic pursuits. The major problem many mountain agrarians faced was finding crops that could be cultivated successfully given the region's short growing season and precipitation patterns. To counter a lack of water in given areas, irrigation systems were built, but high country farmers were never as dependent upon artificially supplied water as their plains brethren. Rather, the high country became the water source for the rest of the state. Finally, after experimenting with traditional crops such as corn, the farmers found they could most profitably raise hay, barley, and some orchard fruits and small vegetables. As farming technology and plant breeding improved, other crops were introduced during the early twentieth century. However, at the same time other areas of the West were being successfully cultivated and market gluts combined with high transportation costs limited the spread of agriculture and the introduction of new plants in the region. Rather, hay and some small cereal grains continued to be popular so that by the 1920s and 1930s almost every farmer devoted some if not all his land to hay raising. During the 1920s and 1930s when farming nation-wide was a depressed industry, the Colorado mountain agrarians shared those woes, because by 1920 the entire region had adequate transportation and had become part of national markets. Their problems were furthered because mining towns, the farmer's traditional consumers, declined and the regional agricultural markets shrank until World War II when there was a resurgence in market demands.

CHRONOLOGY

1859-1870	Farming and ranching develop as auxillaries to mining activities in the region.
1860	Livestock raising starts in South Park-- soon spreads to other mountain areas.

1870s	Farmers start to settle areas away from mining camps and practice subsistence agriculture.
	First large irrigation ditches built in the area.
	Stockmen from Wyoming and Southern Colorado use mountain valleys for summer range.
	Sheep, introduced earlier, came to the region in large numbers.
1880s-90s	Battles between stockmen and sheep growers over available land.
	Hay becomes primary cash crop for farmers.
1891	Federal land law changes remove use of forest reserve ranges from stockmen.
1893	Grazing quota and permit system established for federal forest reserves, later upheld by Supreme Court.
1900-1920	High country farming and ranching reaches a peak by about 1910, then starts slow decline that was temporarily halted by demands of World War I.
1920-1940	National and regional agricultural depression.
1940-1945	World War II food demands cause boom for area farmers and ranchers.

LOCATION

Cultural resources associated with pre-1945 farming and ranching can be found throughout the mountains. Generally, they are concentrated in the larger valleys and parks of the region and are scarce in the more rugged mountain areas. Nevertheless, man's inherent desire for land and attempts at farming or ranching led to a wide dispersal of cultural resources associated with this theme. Also, the mobility of open range ranching and sheep raising furthered the dispersal of temporary use cultural resources such as line shacks, pens, or aspen art.

CULTURAL RESOURCE TYPES

Sites include: Aspen art, feedlot, stock pond, stock trail.

Structures include: Barn, corral, farmstead, feedlot, hay stacker, line shack, ranch, stockpond, stocktrail, stockyard, windmills.

Districts include: Farmstead, irrigation system.

Materials include: Tools and saddlery and machines commonly associated

with farming or livestock raising such as plows, combines, dipping tanks, shearing stands, shepards wagons, and other objects.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

Statewide studies of Colorado agriculture are presently the best sources of information about farming and ranching in the high country and this will probably continue through the foreseeable future. Among these are Alvin Stienel's History of Agriculture in Colorado, Ora Peake's Colorado Range Cattle Industry and an edited study, A Hundred Years of Irrigation in Colorado. Also useful are all five of the Bureau of Land Management's class I histories for the region. Further information about agriculture in given areas can be gleaned from studies such as Bayou Saludo or Early McCoy. In addition, articles and reminiscences published in journals such as The Colorado Magazine provide data about many problems and are good sources for researchers interested in reconstructing farm/ranch life in the region. Studies such as Goff and McCaffree's Century in the Saddle about the Colorado Cattlemen's Association help understand farm and ranch problems and should be consulted for information of that type. Extensive manuscript collections, such as the western cattle industry collection at the Colorado Historical Society and others there and at the Denver Public Library, Norlin Library at the University of Colorado, and at the library of Colorado State University all are useful. Also, because of its heritage as the state's agricultural school, CSU's archives should be reviewed and researched to gain further data about farming and stock raising in the high country.

Number/Condition

The present data base is insufficiently refined to allow for an accurate determination of the number, type, and condition of resources associated with this theme that once existed or may have existed. However, the number is likely to be in the thousands if present survey trends continue and since nearly all areas, except at the highest altitudes above timberline, were used at one time or another for ranching, grazing, or farming. Many of these lands, after becoming part of National Forests or Bureau of Land Management (Grazing Service) tracts were used and improved for grazing, creating even more cultural resources for this theme. However, these same federal agencies often destroyed older resources associated with this theme. Condition of resources varies from intact operating farms and ranches to sites identifiable only by fallen fences and rotting cabin foundations.

Data Gaps

* Clarification of Colorado Preservation Office "cabin" site type as to ranching, farming, or recreation.

* Clarification of site type "homestead" as to function of ranching, farming, or mixed activity. (Homestead is a legal term referring to 160 acres of land claimed under a law passed in 1862 and later amended, not a structure.)

* Adequate representations of the various farming and ranching technologies and mutations/improvements on methods adopted for use in the mountains.

* Representative examples of early Forest Service range improvements.

Future Needs

Present surveys and survey techniques adequately find and record resources associated with this theme, However, future work needs to be done with the current data base to clarify and properly identify sites, such as cabins, as to their historic use and purpose. Also, in conjunction with the engineering technology context for the state, further work must be done to clarify recorded sites such as "irrigation system," as to type, function, builder, users, and so on. Much of this will come about if projects aimed at improvement of site forms, data categories, and electronic data manipulation are completed. If future re-surveys are needed, a historian trained in Western history and field techniques should be employed to carry out the work.

Important Resources

Because of the large number of resources recorded that are associated with this theme, only those in good condition or that provide data not available elsewhere should be considered important. Sites that substantiate the thesis that high country agriculture required special adaptions of methodology and technology are important as are those that reveal information about settlement and land use patterns in the region. Resources associated with minority groups and with important people and events in connection with farming and ranching in the region are also important.

RESEARCH QUESTIONS

1. What resources, if any, remain to explain technological or methodological adaptations of farming to the high country environment?

2. What resources, if any, remain to explain technological or methodological adaptations of ranching to the high country environment?

3. What resources, if any, can help establish and/or interpret land use and settlement patterns in the high country?

4. What resources, if any, can verify the roles of minorities and women in high country agriculture?

5. What resources, if any, remain to verify or explain early federal involvement in grazing, irrigation, and conservation?

PHYSICAL CONDITIONS

Aspen Art: Should be clearly dateable to historic period and be extensive enough to be clearly identifiable.

Barn: Should be in original location and have physical integrity enough to make function and dimensions readily apparent.

Corral: Should be in historic use location and intact enough to make dimensions and function (historic) readily apparent.

Farmstead: Should be in original location and enough of the dwellings and associated buildings should remain to make number of structures, spatial relationships, and functions readily apparent.

Feedlot: Should be in original location and enough of the borders and facilities intact to make function and dimensions readily apparent.

Hay Stacker: Should be operable or at least have enough of the machinery intact to make function and method of operation readily apparent.

Irrigation System: See engineering report for standards.

Line Shack: Should be in original location and have enough physical integrity to make function and dimensions readily apparent.

Ranch: Should be in original location and enough of the dwellings and associated buildings should remain to make number of structures, spatial relationships, and functions readily apparent.

Shepard's Wagon: Should have enough physical integrity to identify method of operation, number of occupants, and any ethnic association readily apparent.

Stock Pond: Should have enough physical integrity to allow capacity, method of filling and dates, methods of construction to be readily apparent.

Stock Trail: Should be able to clearly recognize trail from physical evidence and from existing historical documentation.

Stock Yard: Should be in original location and have enough physical integrity to readily recognize function, method of operation, and dimensions.

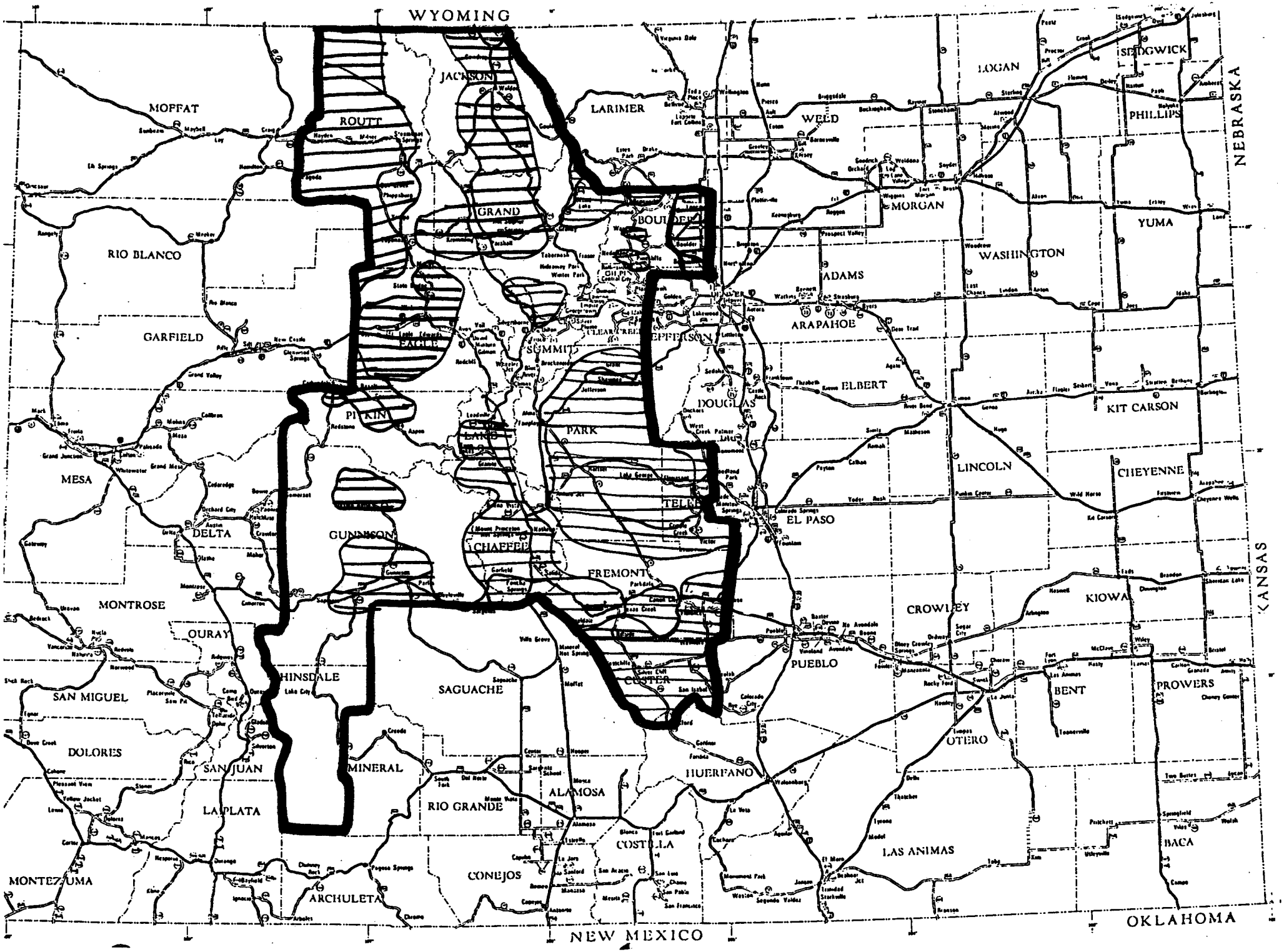
REFERENCES

Ora B. Peake. The Colorado Range Cattle Industry. Glendale: The Arthur H. Clarke Co., 1937.

Alvin Steinel. A History of Agriculture in Colorado. Ft. Collins: State Board of Agriculture, 1926.

Goff and McCaffree. Century in the Saddle. Denver: Colorado Cattlemen's Centennial Commission, 1967.

For additional sources, consult county histories for the region.



FARMING AND RANCHING

13. MOUNTAIN COLONY SETTLEMENTS

NARRATIVE

The history of Colorado is highlighted by the group efforts and attemps at communal living made by early settlers to the region. Almost all of these were based on farming.

The first effort undertaken by Anglos in the state to settle as a group came in 1869 in the Wet Mountain Valley not far from Silver Cliff. Officially known as the German Colonization Company, the effort was organized by Carl Wulsten. He was a veteran of the Civil War who had found work with a bi-lingual publishing company in Chicago after the conflict ended. Wulsten and two companions came to Colorado in 1869 looking for an area to settle. They found the Wet Mountain Valley appealing because of the availability of water and land as well as the fact that previous farmers had successfully grown crops there.

Wulsten and his associates returned to Illinois and began perfecting their plans for a colony. The company was to hold title to all the land and sell memberships to individuals. The fee of $250 per family covered land, transportation, and the necessary equipment and seeds to get a farm started. Wulsten attracted 300 German-Americans to his colony and during the Spring of 1870 they set out from Chicago enroute to their promised land. The effort was to be communal but problems began to arise even before the group left Chicago. Wulsten had been unable to get government land grants for the desired 40,000 acres and when the colonists arrived they were no more than squatters. Their communistic plans led to tensions with other area residents. They arrived in Colorado during March, 1870, and founded the town of Colfax, named in honor of the then Vice-President of the United States, Schuyler Colfax, who helped arrange land transfers to the colony. The colonists planted crops and began homebuilding while Wulsten rushed to Washington, D.C. to get title to the land. The uncertainty of ownership among the colonists as well as crop failures led to the disintegration of the effort by December of 1870. Colonists drifted away and soon only a handful were left at Colfax.

The problems of Wet Mountain colonists were typical of many of the other groups in Colorado during that period. No other major colonization efforts were undertaken deep in the Colorado mountains for eight years as attention was focused on the plains.

In 1878 a second major ethnic colony effort was undertaken in the Colorado mountains. This was Cotopaxi, located along the Arkansas River between Canon City and Salida. Interest in settling the area was stimulated by silver and zinc discoveries as well as persecution of Jews in eastern American cities. Emanuel H. Saltiel, a prominent Jew, had bought the mines at Cotopaxi from their discoverer and sought labor to develop them. At the

same time, the Hebrew Immigrant Aid Society was looking for a place to relocate Jews to. In 1878, Saltier offered land at Cotopaxi for a colony of Jews. By 1881, plans were finalized as Saltiel sent in glowing reports to New York about the Colorado lands. As a land speculator, he hoped to bilk the Aid Society. In May, 1882, after getting $10,000 from the Society, Saltiel received his first twenty families for settlement at Cotopaxi.

What they found upon arrival was 2,000 acres of barren, arid land with the promised houses only small shacks. Saltiel explained the delays in shipments of equipment and buildings, blaming others and then disappeared on a business trip. From 1882 until 1884, as courage, supplies and money dwindled and problems accumulated, the colonists held on. In June, 1884, the Cotopaxi colony officially disbanded and with it the last major colony in the Colorado mountains.

Another phenomenon that occurred simultaneously and continued afterward was the arrival of groups from common previous locations that decided to relocate to Colorado together. These were not formally organized as colonies nor did they practice communal living, but the shared background, and family or friendship ties did serve to support the group during the trying times of initial settlement. They came primarily from the midwest and south, were Angle and spoke English. The most notable exception to this was a number of Germans who settled near McCoy in a group. The influences these people had on the region were most often felt in things such as celebration of their old home's statehood day or the transplanting of certain agricultural techniques and tools to Colorado's high country. The last burst of this type of settlement in the mountains came during the years after the Panic of 1893 until about 1910.

The colonies and group settlements in Colorado's mountains between 1870 and 1910 helped stimulate agriculture and people the area. Because most of these individuals were interested in permanent residences, much of the fluidity so typical of the mining frontier was lost as families began to stay on for generations.

CHRONOLOGY

1869	Carl Wulsten visits Colorado, lays out plans for Wet Mountain Valley colony.
1870	Wet Mountain German-American colonists arrive, leave and/or disband the colony by year's end.
1870s-1910	Group settlements, not officially colonies, popular.
1878-1884	Cotopaxi colony attempts by Jews under the direction of Emanuel Saltiel.

LOCATION

Cultural resources attributable to this theme are most likely to be found in Fremont, Custer, and Routt Counties. However, evidences of group

settlements are also spread out in and around the agricultural communities of the mountain region. The ethnic groups involved did not build particularly unique structures, and little has survived to mark their presence. Walsten's grave at Colfax is a notable exception.

CULTURAL RESOURCE TYPES

Sites include: Communal Lands, Farmstead.

Structures include: Community Center, Barn, Corral, Ranch.

Districts include: Farmstead, Irrigation System, Ranch, Colony.

Materials include: Tools, implements and equipment commonly associated with late nineteenth century agriculture.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

Mountain colony settlements have sparked little historical interest, especially compared to sites such as Greeley. One master's thesis at the University of Colorado on Cotopaxi by Flora J. Satt is the primary source of information along with James F. Willard and Colin B. Goodykoontz's Experiments in Colorado Colonization, 1869-1872. Aside from these, one must rely on the general histories of the state: Athearn's The Coloradans, Hafen's Colorado and Its People, and Ubbelohde, Benson and Smith, A Colorado History, for information. Little historical documentation exists beyond these sources except in accounts published by newspapers in the local areas and the Rocky Mountain News which is readily available on microfilm.

Number/Condition

All of the mountain colony settlements failed and with them most traces of their existence also disappeared. Because of this, it is impossible to ascertain how many and what types of resources may once have existed.

Data Gaps

*Representative communal living quarters.

*Representative communal gardens/fields.

*Representative communal structures.

*Representative historical/ethnically unique German or Jewish structures at or near Wet Mountain Valley and Cotopaxi.

Future Needs

Since the Colfax and Cotopaxi experiments were failures, future needs

for this theme are limited to making surveyors aware of group settlements and/or colonies in the mountains. No special efforts should be made to survey for this theme.

Important Resources

Because of the lack of known and probable sites associated with this resource, any verified site should be considered important. While the mountain colonies generally were not successful, they did have important associations with ethnic groups (Cotopaxi and Wet Mountain Valley) and would help clarify the role of ethnic groups in the region's settlement. Also, the failures of Cotopaxi and Wet Mountain provided valuable lessons for later colonization efforts in Colorado and the West, so cultural resources that would substantiate this role are important. Of lesser importance are those resources associated with non-ethnic settlement by groups in the mountains.

RESEARCH QUESTIONS

1. Can cultural resources offer new explanations for the success or failure of mountain colony settlements?

2. Can cultural resources offer new explanations of group settlement in parts of the Colorado mountains?

3. Can cultural resources substantiate the role of ethnic groups, minorities and/or women in the settlement of colonies or groups in the Colorado mountains?

PHYSICAL CONDITION

Barn: should be in original location and have physical integrity enough to make function and dimensions readily apparent.

Community Center: should be in or near original location and have enough physical integrity to make its size and physical layout readily apparent.

Communal Lands: should be readily identifiable as farm or grazing lands and, if possible, retain some of the original boundary markers.

Corral: should be in historic-use location and intact enough to make dimensions and historic function readily apparent.

Farmstead: should be in original location and enough of the dwellings and associated buildings should remain to make the number of structures, spatial relationships and functions readily apparent.

Irrigation System: see engineering report for standards.

Ranch: should be in original location and enough of the dwellings and associated structures should remain to make number of structures, spatial arrangement and functions readily apparent.

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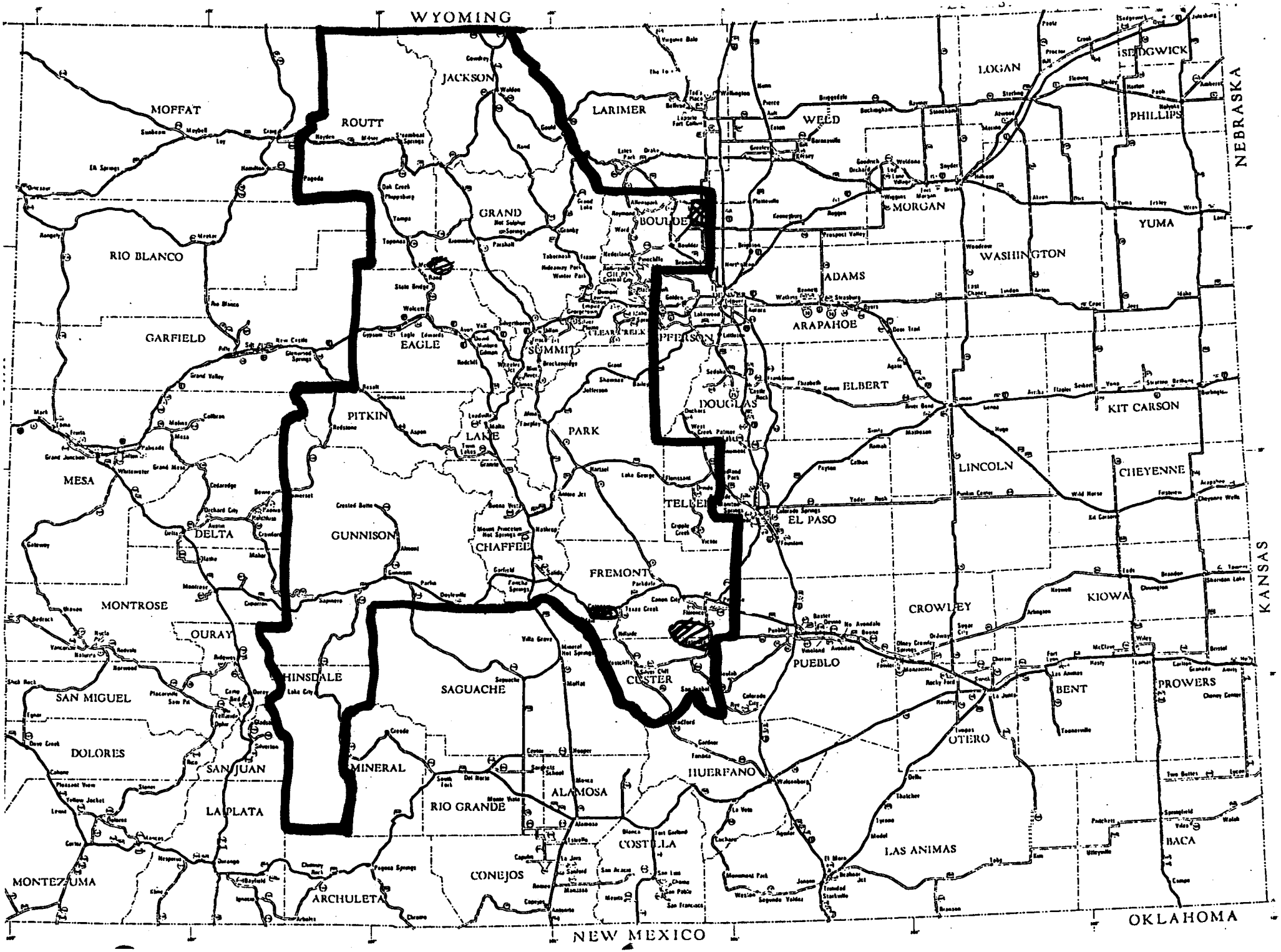
Robert G. Athearn. The Coloradans. Albuquerque: University of New Mexico Press, 1976.*

F. J. Athearn. Land of Many Flags. Denver: Bureau of Land Management, 1982, DRAFT.*

Chicago-Colorado Colony Mss. Collection, University of Colorado, Boulder.

C.W.A. Interviews, Boulder County, Colorado Historical Society.

*Available (or will be) in Paperback.



COLONY SETTLEMENTS

14. RECREATION, TOURISM, ROOTS AND DEVELOPMENT 1865 to 1945

NARRATIVE

Soon after the reports of trappers and explorers were published and at least a decade before any permanent settlements were established in the region, the Colorado mountains generated interest in the eastern United States and Europe as a place to visit and vacation. The number of visitors sharply increased immediately after the gold rush, and, by the early 1870s, a distinguishable industry based on vacationeers was thriving in parts of the region. The tourist frontier expanded in the high country in conjunction with the spread of mining and railroads. The climate, scenery, recreation possibilities and a chance to see the "Old West" or "Wild West" all drew visitors to the region. Those same features gave promoters the raw material for their publications. The natural environment and "sell Colorado" efforts went hand in hand to create the high country's tourist industry.

The tourist potential of the region was advertised and promoted from the earliest historic period. The first visitors to Colorado after the gold rush were greeted by an enthusiasm in the local populace far greater than the facilities for tourist comfort. Distinguished visitors such as Horace Greeley or the Frenchman Louis Simonin came to Colorado. Both were writers and found many complimentary things to say about Colorado's mountains. Colorado newspapers also did what they could to spread the word about the region's recreation and sporting possibilities. Foremost in this group of newspaper men was William N. Byers who eventually went so far as to help found a town, Hot Sulphur Springs, as a resort for vacationeers. Beyond the activity of journalists, local boards of trade and chambers of commerce had tracts written for distribution elsewhere in the nation. Eventually, even the state government got caught up on the promotional fever. An additional major source of promotional literature on Colorado was from the rail companies. As early as 1870, the Kansas Pacific Railroad hired agents to write booklets extolling the virtues of a Colorado mountain vacation, travelling on the KP, of course. Transportation company interest in the vacation trade grew, and as competition increased so did the efforts to attract passengers with bargain fares, family plans, and transport-hotel packages. Early photographers and their Colorado scenics aided the promoters. Probably the most famous was William Jackson and his image of the Mount of the Holy Cross.

The people who vacationed in Colorado's mountains from 1870 to 1945 came to take advantage of the many different recreation and resort possibilities available. One of the major groups was the healthseeker. They included people with respiratory problems, arthritis, rhuematism, consumption, cancer, gout, and many other ailments. They were attracted by the well-advertised "champagne air" and numerous hot springs available. Entrepreneurs built facilities, especially at mineral springs, to facilitate these sufferers. The most famous spas, Glenwood and Manitou Springs, were outside the

mountain region, but many others such as Eldorado Springs, Indian Springs, Hot Sulphur Springs and Penny Hot Springs were developed and promoted as health resorts. Another group specifically catered to by mountain businessmen were the outdoorsmen who came to hunt, fish, hike and horse pack in the region. Lodges, fishing reserves and other facilities were built for them. Individuals of higher financial standing bought their own cabins and homes in the mountains. Both these trends continued throughout the period, and at one time Congress debated creation of a Vacation Homestead Act to give cabin builders the opportunity to get land. This bill was introduced by Representative Edward T. Taylor, who represented the Colorado mountains and Western Slope from 1908-1941.

The influx of tourists, no matter why them came, was quickly appreciated by high country merchants, especially in towns where the mines were closing. These entrepreneurs found it much easier to extract wealth from people's pockets than the earth. Because of the eastern fascination with the "Wild West," engendered by newspapers, popular literature, and later by the cinema, the mountain chambers of commerce and promotional groups found it very easy to attract visitors. This led to a shift in economics based on tourism, and in some cases whole towns were built or rebuilt as resorts. Also, it caused the spread and growth in popularity of visitor's ranches or Dude Ranches where tourists could partake in folk activities connected with the "Old West."

While Colorado's high country had the natural and man-made attractions for visitors, the tourist industry would never have developed without adequate transportation to the area from the more populous part of the U.S. Americans were not alone in taking advantage of the vacation possibilities. Europeans were also attracted to the state, who, after docking in New York City, could be in the heart of Colorado's Rockies within a fortnight or less on the railroads of the 1880s. Not only did the rail companies promote train vacations but in some cases they became tourist attractions themselves. The Georgetown Loop of the Colorado Central, the Denver & Rio Grande's Hanging Bridge in Royal Gorge, the Switzerland Trail, and the Moffat are good examples. All of the rail companies serving the mountains provided open-topped observation cars and scheduled trains to be in the most scenic part of their run during daylight: both efforts to maximize tourist enjoyment.

Within a few decades, the rail companies found their position challenged by automobiles and improved highways. High country businessmen recognized this new market and began making facilities available for windshield tourists. These included auto camping parks, motor hotels and courts, roadside parks and picnic grounds. The 1920s were the zenith of tourism in Colorado's high country both by rail and auto until after World War II. The Great Depression and world war each curtailed pleasure travel. This was due at first because of economic problems and later by government wartime restrictions.

CHRONOLOGY

1840-1860 Mountains visited by government explorers and private travellers who write much that

attracts attention to the area.

1860-1870 Journalists and writers visit Colorado's mountains and return east writing glowing reports about the beauty of the area.

1870 Denver, as gateway to the mountains, is connected to the east by two railroads making travel to the mountains much easier for visitors.

1870-1880 Rail network spreads in mountains.

Promotional groups hire writers to popularize Colorado mountain vacations, a trend that has continued.

Sportsmen travelling through much of high country.

1881 Ute removal from region. Promoters can tell people they no longer need fear Indian attack.

1880s Development of high country health resorts.

Promoters begin selling "visit the Wild West" ideas.

1890s Panic of 1893 slows tourism, but soon recovers.

1910-1930 Automobile tourism increases rapidly with development of better highways and facilities.

1920-1930 Pre-World War II tourism at an all-time high for both railroads and autos.

1930-1945 Great Depression and World War II sharply curtail high country tourist trade.

LOCATION

Cultural resources associated with the tourist industry can be found throughout the Colorado mountains. They are primarily located along or in the proximity of major historic travel routes. Transportation availability greatly impacted the success and survival rate of these resorts. If travellers could not easily reach them, such as early Hot Sulphur Springs, the resorts usually failed to develop to the extent of others on travel lines. More modest tourist facilities such as hunting cabins or fishing lodges are scattered throughout the region, usually but not always in more remote areas. Many of these structures have experienced multiple uses and functions.

CULTURAL RESOURCE TYPES

Sites include: Campground, Picnic Grounds.

Structures include: Hotel, Lodge, Motor Hotel/Motor Court, Resort, Spa.

Districts include: Resort, Spa, Visitors' Ranch.

Materials include: Tents and other camping equipment, implements for hunting and fishing, photography and artist's tools, as well as auxiliary facilities such as service stations or passenger depots.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

The wide variety of topics from recreation to camping to tourist vacations and sightseers means the first step a researcher must take is to make the decision about which part of the theme is most germaine to his needs. Unfortunately, no single study covers all the topics in great detail. Background information can be gleaned from Athearn's The Coloradans, Ubbelohde, Benson and Smith, A Colorado History and Hafen's Colorado and Its People. Beyond these, books such as Samuel Bowles, Across the Continent, 1866, or Eugene Parson's Guidebook to Colorado, 1911, and many others have been written and should be consulted for specific reports or areas at definite times. Most of these do not contain much information about the history of tourism. Hafen's version of William H. Jackson's diaries are very informative about the photographic frontier. Articles in The Trail and The Colorado Magazine relate shorter diaries and impressions of early visits to the Colorado Mountains. Jack Benson's article on early skiing in the Western Historical Quarterly is the only significant study of this tourist industry's early roots. The manuscript collections at Denver Public Library, Norlin Library at the University of Colorado, and the Colorado Historical Society contain much information usable for study of this theme, especially the railroad collections that contain copies of brochures, pamphlets, and guidebooks the companies had written to promote their lines as vacation routes. State reports from the Board of Immigration are also useful.

Number/Condition

The data are insufficient to adequately address the number, type, and condition of resources that exist or may once have existed for this theme. While every or nearly every town had at least one hotel or boarding house, many were destroyed or extensively modified before they were recorded. Also, many of the later resources such as motels, campgrounds, and other facilities have not been recorded. Further, some resources such as the Georgetown Loop or Central City were tourist attractions well before 1945 but have historically been associated with other themes.

Data Gaps

*Presently, because of the large number of sites already

recorded for the pre-1920 tourist era, few gaps for that period remain except for the totals of resources that once existed.

*Representative examples of early hunting lodges and fishing camps.

*Representative examples of motor courts, campgrounds, and other facilities for early auto tourists.

*Further historic investigation of the tourist industry in the state.

Future Needs

Surveys oriented to the location and recordation of tourist facilities of the period 1915-1945 are needed to find resources that may be eligible for the National Register of Historic Places, especially since tourism became a major industry for the Colorado mountains during that era. This type of survey should be given increasing priority as these resources approach the fifty year old date.

Important Resources

Important resources for the recreation and tourism theme in the state should include those famous resorts, spas, railroad lines, or other facilities that attracted significant national and international attention and have made a great contribution to the economics and promotion of the state. Also important are representative and unique tourist and recreational facilities and consideration of the changing standards for these through time to include all aspects of the industry: spas, resorts, lodges, motor courts, visitor's ranches, and other facilities. Association with important people or events connected with this theme will also be important. This may include use of the facility by important individuals as well as ownership or establishment of facilities by prominent Coloradoans or other individuals. Resources dating from 1915 to 1945 and any earlier resources that substantiate the role of tourism in regional economic development should be considered important. Those resources that date to the period 1915-1945 that substantiate and explain the growth and evolution of the tourist industry should be considered important.

RESEARCH QUESTIONS

1. What resources, if any, can help explain the growth of early tourism in Colorado's mountains?

2. What resources, if any, can help explain the growth of Colorado as a "healthgiving" area?

3. What resources, if any, can help explain the role of railroads and other promotional agencies in the growth of mountain tourism?

4. What resources, if any, can help explain the shifts and changes to the tourist industry caused by the automobile?

5. What resources, if any, can help substantiate the thesis that man modified the landscape to make viewing the scenery easier or more attractive?

PHYSICAL CONDITION

Campground: should have enough of the pertinent facilities and border indicators remaining in place to make function and dimensions readily apparent.

Hotel: should have locational and external physical integrity to make historic use readily apparent.

Lodge: should have enough physical integrity and, if possible, be in original location to make historic use and type of recreation apparent.

Motor Hotel: should have locational and enough physical integrity to make historic use and method of operation readily apparent.

Picnic Grounds: should have enough of its historic appliances and materials on the site to make its function and dimensions readily apparent.

Resort: should have enough physical integrity to make historic uses and dimensions readily apparent.

Spa: should have enough physical integrity and locational association with a hot springs to make historic use readily apparent. If it is a complex, enough of the buildings and facilities should remain to provide explanation of uses and/or services available.

Visitors' Ranch: should have enough physical integrity and/or buildings and facilities intact to make its historic use and dimensions readily apparent.

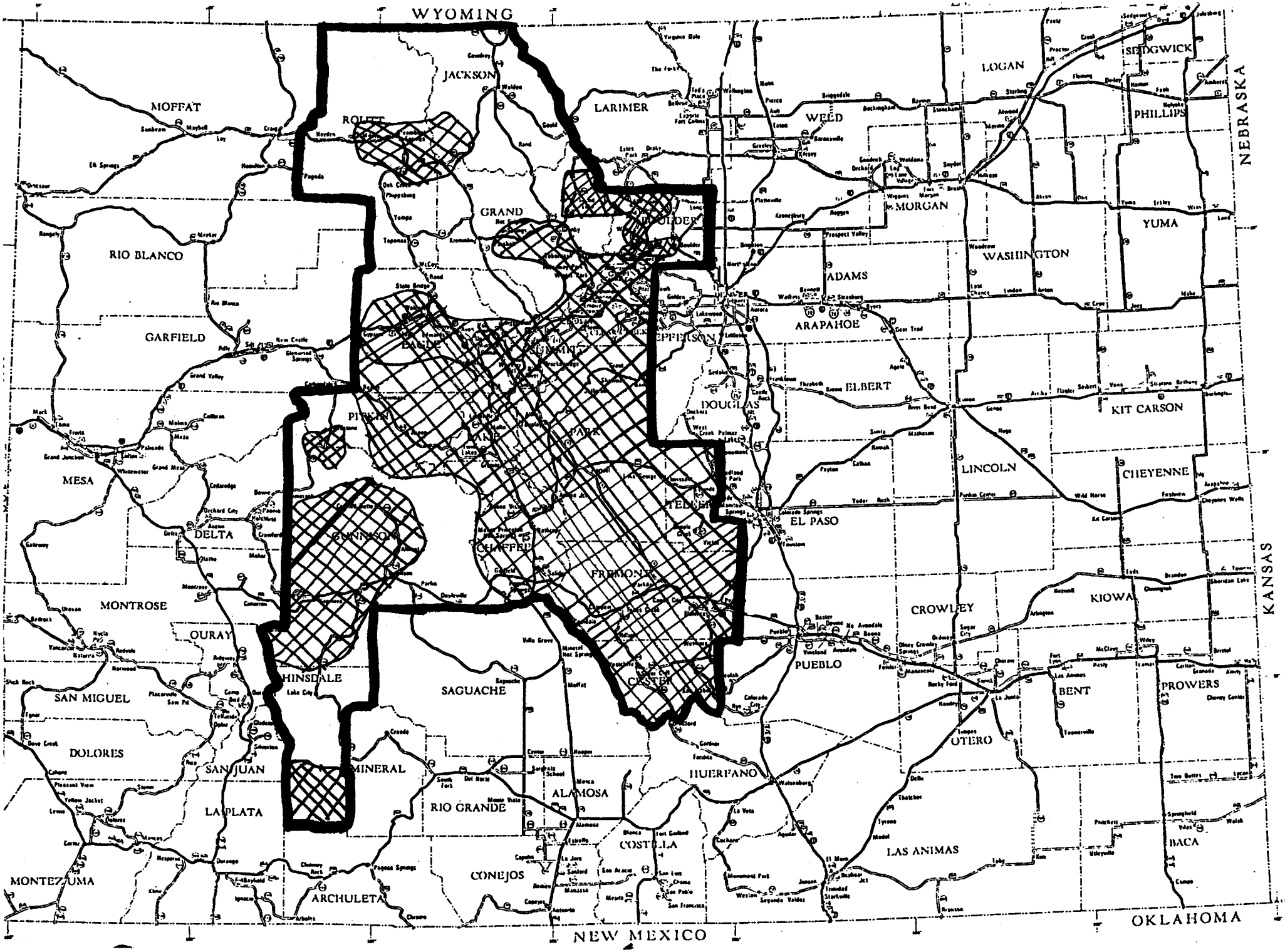
REFERENCES

Robert G. Athearn. The Coloradans. Albuquerque: University of New Mexico Press, 1976.*

Lyle Dorsett. The Queen City. Boulder: Pruett Press, 1977.*

Also, investigate local towns and specific resorts, many of which have had histories written. Further collections, such as the Union Pacific Collection, Colorado Historical Society, contain usable information.

*Available in Paperback.



RECREATION AND TOURISM

15. AUTOMOBILES AND THEIR IMPACTS, 1890-1945

NARRATIVE

Automobile ownership was becoming widespread enough in Colorado and the United States by the first decade of the twentieth century that local promoters had to start giving consideration to providing improved roads and highways for the new vehicles. The new mobility made possible by the automobile eventually had large impacts on the mountain region including construction of service stations and automobile dealerships, to provide auto services and motor courts and motels to serve the car tourists. Towns now sought to have highways routed through them rather than rail lines. In addition, the isolation of many areas previously dependent on comparatively slow animal conveyances was broken. Probably no other single change since the 1859 gold rush has had greater consequences on the high country. However, the extent of the change did not become apparent until after World War II.

The spread of auto ownership coincided with another phenomenon that helped further the improvement of the state's highways. That was the Good Roads Movement. Started in the East during the 1890s, it had spread west by 1900. Initiated by bicyclists nationally and locally, the movement attracted ardent supporters among the pioneer motorists. Together they lobbied county governments and the state legislature for funding to build and repair roads. Promoters outside the mountains, especially those in Denver, already well aware of the mountain lure to tourists, saw the potential growth of trade if better roads could attract more motor visitors to Colorado. These groups joined their high country counterparts in lobbying efforts. Unable to resist these efforts, the state began a program to upgrade the region's highways. Much of the actual work was carried out by convict labor from the State Penitentiary. The second decade of the present century witnessed pressures on Congress and the commencement of a federal highway program. The Colorado mountains were one of the first areas to receive U.S. roads when, in 1913, the Transcontinental Highway was designated roughly along the route of Interstate 70. From these early beginnings, the mountain highway system evolved rapidly, so that by 1945, nearly every town in all parts of the region had an improved highway in or near the towns.

The demands of global conflict from 1914 to 1919 accelerated the building of roads. This caused a much wider acceptance of the automobile and also great strides in truck technology. The availability of dependable trucks led to a replacement of animal-powered freight haulers. Eventually, the advantages of the automobile would supercede the use of railroads as well. By 1945, many previously profitable branch lines were being replaced by motor carriers.

The changes wrought by automobiles were not limited to transportation but also affected regional towns. In many locations, the downtown commercial district, once centered on the railroad or major industry, realigned itself

along the highway. These spatial shifts were not so pronounced in the high country as they were elsewhere in the state because of space limitations imposed by topography. But, nevertheless, community commercial planning and development was reoriented to accommodate the new mobility.

The conversion to an auto culture led to modifications of the built environment to serve the motorist's specific needs. Among these were the appearance of service and gasoline stations. Many of these were originally independently owned, but soon were taken over by or became affiliated with major oil companies. Automobile dealerships and garages also began to appear replacing earlier livery stables and harness shops. The formative years of the auto age, especially the 1920s, were an era of increased advertising and consumer awareness. Brand recognition became important, and many auto-age structures encouraged this by adopting a uniformity from outlet to outlet. The spread of auto ownership was stimulated by another phenomenon of the decade--time payments. These consumer loans made the luxury of an auto available to many not only in the region, but also those outside who would take advantage of the roads to visit and conduct trade with high country residents.

The Great Depression of the 1930s, while slowing auto sales, furthered the development and improvement of Colorado mountain highways. Public work sponsored by the federal government to lower unemployment included road work, bridge improvements, and construction of tunnels. World War II halted these projects, but by then Americans were toally acculturated to the auto, and wartime denial helped spur on post war travel booms and new road building.

CHRONOLOGY

1890-1900	Bicyclists start Good Roads Movement in East demanding state improvement of highways.
1900-1910	Good Roads Movement reaches Colorado and pressures put on state legislature for road building.
	Auto ownership, while restricted, begins a steady growth in the high country.
1900-1920	State convict labor used to build roads.
1910-1920	Federal government becomes involved in road building and designation of U. S. Highways. Some of the earliest highways pass through Colorado mountains.
	Auto ownership becomes accepted, no longer are they viewed as curiosities.
	Truck usage increased for freight hauling.
1920-1930	Manifestations of auto culture begin to appear in large numbers in mountain communities, especially service

stations and auto dealerships.

1930-1945 Great Depression and World War II slow consumer purchases of autos and accessories. 1933-1941 New Deal public works programs improve roads.

LOCATION

Cultural resources clearly attributable to the early automobile age are randomly located along the major federal, state, and county highways throughout the region (except for the Interstates that weren't built until the 1950s). The aforementioned highways also constitute resources of this era. In some areas, buildings with earlier uses were adapted and refitted for use by auto service facilities. Further evidences of the auto age can be found in the highway-facing orientation of commercial districts where auto service facilities were integrated into the districts.

CULTURAL RESOURCE TYPES

Sites include: Highways, Truck Runaway Ramps.

Structures include: Garages, Gasoline Storage Facilities, Highways Oil Racks, Service Stations, Truck Loading Docks, Bridges.

Materials include: Autos, Trucks and other vehicles built before 1945. Also, Tools and other devices designed to maintain those vehicles as well as roadside litter dating to the era are rightfully part of this theme. For associated types, also see recreation/tourism thematic analysis for the mountains.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

Presently, little historical study and effort has been devoted to the growth and development of auto transport in the Colorado mountains. As of 1982, only one study has been completed, that by Mark Foster, which covers the entire West. Undoubtedly, this will stimulate further inquiry, and the near future should see the completion of many studies. However, until that comes to pass, researchers must rely on the general studies of the state's history, Athearn's, The Coloradans, Ubbelohde, Benson and Smith, A Colorado History, and Hafen's Colorado and Its People, to find syntheses of the auto age in the mountains. Bean's study of Charles Boettcher is useful for a study of the early cement industry. Another good source is tourist guidebooks and promotional literature published by Denver and other Chambers of Commerce. These detail available route and facilities at the time they were written. Articles in magazines such as The Trail and The Colorado Magazine also serve as good sources of information such as stories of "my drive" and the like. Most notable is Hafen's 1931 Colorado Magazine article on Colorado's early highways. Records of County governments and the Colorado Highway Department are probably the most reliable sources available on the actual dates, methods, and costs of construction of highways. Local

newspapers and history studies often include information about the first or early garages, auto ownership, and car dealers.

Number/Condition

The present data base is insufficient to determine the number, type or condition of resources. This situation exists because many of the resources have not been adequately recorded. Although many of the resources may still be in use, others have been modified or razed for new construction. The condition of resources varies from good and in use, to destroyed or badly deteriorated. As for those resources that still exist, they should be adequately recorded and/or preserved.

Data Gaps

*Early or representative examples of garages and early auto service facilities.

*Early or representative examples of early auto age tourist facilities.

*Early or representative examples of early auto age highways and highway maintenance facilities.

*Early or representative examples of "chain" gasoline distribution centers.

Future Needs

Presently, surveyors are not or have not adequately addressed resources that are just over fifty or almost fifty years old. Since many resources associated with these fall in the time period 1915 to 1945, surveys in the future should include the auto age cultural resources. Also, inventories of and along present and historic highways should be undertaken. Continuance of the mainstreet surveys should be given priority because they provide valuable information about the identification and placement of auto facilities within the commercial districts.

Important Resources

Resources associated with this theme are important if they contribute to an understanding of the role of the automobile in the twentieth century development including their effect on modification of lifestyles and physical layout of towns in the Colorado mountains. Important resources would include those that substantiate the spread of commercial "chain" operations and franchises, such as gasoline distribution facilities, motels, and eating establishments. Resources that exemplify the reorientation of towns or commercial districts in towns to highways should be considered important. Additional important resources are representative or unique examples of automobile facilities during this period.

RESEARCH QUESTIONS

1. What resources, if any, can substantiate the role of automobiles in a socio-economic revolution in lifestyles of residents of the Colorado mountains?

2. What resources, if any, can substantiate the role of automobiles in the spatial rearrangements of mountain towns?

3. What resources, if any, substantiate the role of automobiles in the growth of mountain tourism?

PHYSICAL CONDITION

Garage: should have enough physical integrity to make function and methods/techniques of operation readily apparent.

Gasoline Storage Facilities: should have enough physical and locational integrity and enough of the associated appliances intact to make function and method of operation readily apparent.

Highways: should be readily recognizable and have enough physical integrity intact to make dimensions and method of construction readily apparent.

Oil Racks: should be readily recognizable as to function and method of operation.

Service Stations: should have locational and enough physical integrity intact to make function readily apparent.

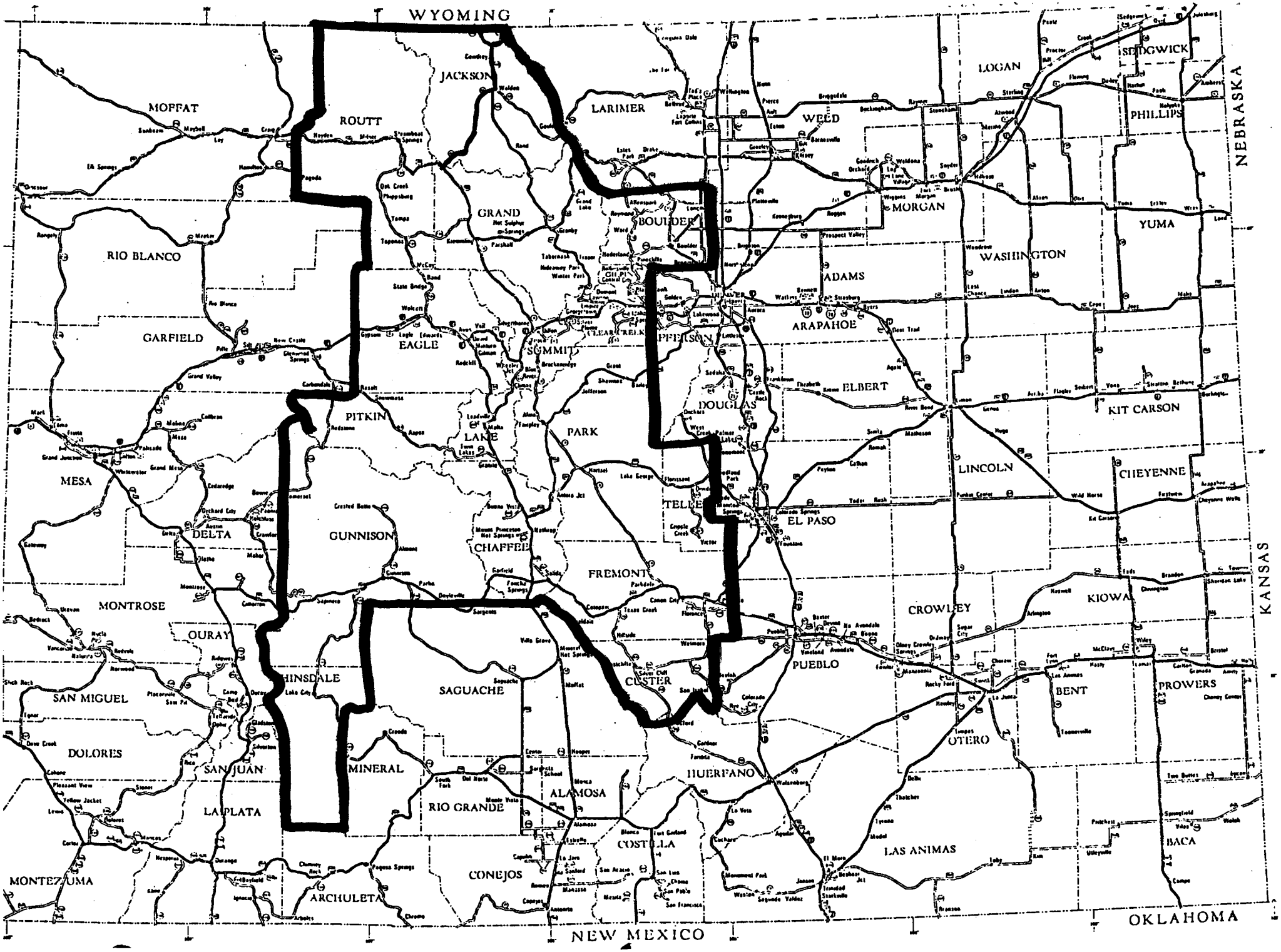
Truck Loading Docks: should have locational and enough physical integrity to make function, dimensions, and method of construction readily apparent.

REFERENCES

LeRoy R. Hafen. "The Coming of the Automobile and Improved Roads to Colorado," The Colorado Magazine 8 (January 1931).

_____. "Pioneer Struggles for a Colorado Road Across the Rockies," The Colorado Magazine 3 (March 1926).

In addition, some collections of pamphlets and manuscripts as well as early travel magazines have some useful information.



HIGHWAYS AND AUTOMOBILES

16. FEDERAL ACTIVITY AND CONSERVATION 1890-1945

NARRATIVE

The impact of federal presence in the Colorado mountains since 1900 has been one of the major forces in shaping the region's recent history because of the amount of land managed by the federal agencies. A conflict has existed since the assumption of this role between the preservation and government influence versus local control and use of the region.

The role of the national government in Colorado's mountains was small until the 1890s. Prior to that time, federal laws regulated certain activities such as land disposal. These laws were fairly lax and had been oriented toward transferring public lands to private ownership as easily and quickly as possible. In many ways, the region's prosperity had been based on the unregulated and seemingly unlimited exploitation of the natural wealth such as timber, land, water, grass and minerals. However, by the nineteenth century's last decade, the apparently endless wealth was nearing exhaustion. Many mountain residents either failed to see or ignored the resources depletion. Further, Colorado's mountain people felt it was their god-given right to use the wealth.

Some individuals on the Eastern Slope of Colorado and in the East could foresee a day when the land had no more to give. These tensions between exploiters and protectors began during the 1880s and have continued to the present. Once the General Revision Act was passed, the federal government found itself caught between these two groups when it tried to enforce protectionist laws that were vehemently opposed by residents of Colorado's high country where the new rules had great impact.

The General Revision Act was passed in 1891. It was only a matter of months before this law began to alter life in Colorado's high country. During March of 1891, agents of the General Land Office, working out of the Glenwood Springs office, surveyed timberlands. By October, their work finished, President Benjamin Harrison set aside 1.2 million acres as the White River Timber Land Reserve. From then until 1917, additional lands throughout the mountains were withdrawn and boundaries adjusted. These lands in Colorado included Medicine Bow National Forest, Pike-San Isabel National Forest, and Roosevelt-Arapaho National Forest. Closing these millions of acres led to great public outcry in the Colorado mountains. After 1905, many blamed Gifford Pinchot, Chief Forester of the U. S., when the reserves were transferred from the Department of the Interior to the Department of Agriculture. Pinchot was seen as a carpetbagger who did not appreciate or understand the region's needs.

High country stock raisers were the most vocal in opposing the reserves and later in opposing a fee and permit system for grazing on the forests,

something cattlemen and sheepmen had done for years on the same land for free. Stockgrowers associations protested the creation of the reserves to little avail. By 1905, most range users had decided to simply ignore the federal forest rangers as they utilized the forest lands illegally for grazing. In a test case of both the fee and reserve system, Fred Light, a rancher of Snowmass, Colorado, was arrested for trespassing on the Holy Cross National Forest in 1907. Light was found guilty and appealed his conviction through the courts to the U. S. Supreme Court. On May 1, 1911, the high tribunal announced its verdict confirming Light's conviction and proclaimed the National Forests, timber and grazing permit system to be constitutional. This took away area ranchers' last legal argument. From then on, the U.S. Forest Service worked to improve range lands and timber stands on the forests, often showing ranchers how they could improve their own lands as well.

The 1890-1920 push for conservation and preservation of America's natural resources led to other new agencies becoming active in Colorado's high country. Among these were the Bureau of Reclamation and National Park Service. The Bureau of Reclamation, created in 1902 by the Newlands Act, was designed to build irrigation projects for domestic and agricultural use since many of those left to be built were too large and expensive to be financed by private companies or state government. The Bureau's three major projects in Colorado's mountains were the Gunnison Tunnel, Colorado-Big Thompson and Frying Pan-Arkansas. All three were conceived of before 1945, but only the Gunnison Tunnel was completed prior to 1945. They also assisted in maintenance and upgrading of other systems.

The National Park Service also had only a small number of facilities in the Colorado high country. Their works, while limited, had great impacts on the region's economy and the growth of tourism. The parks and monuments in the high country that became big tourist attractions were Rocky Mountain National Park (1915), Holy Cross National Monument (1929), and Florrisant Fossil Beds National Monument (1923). All three were heavily promoted by local interests to convince the federal government to grant park status to these properties. The monument status of Holy Cross National Monument was revoked after World War II and the lands returned to White River National Forest. Having a monument's status revoked was a unique occurrence in American history.

The third federal agency that became a land managing agency in the region was the U. S. Grazing Service, presently known as the Bureau of Land Management. Organized by the Taylor Grazing Act of 1934, the purpose of the Service was to control most unreserved federal land and to regulate grazing and other uses of the land. One of the first grazing districts formed under this act, District Number One, included western parts of Colorado's high country.

The United States Army was the last federal agency to have a large influence in the Colorado mountains. Prior to the twentieth century, army involvement in the region included only brief periods of exploration or military involvement in Indian skirmishes and the Mexican War.

During the late 1930s, as Europe prepared for war, U. S. Army planners selected Colorado as a site to train American troops for mountain combat. In 1938, the Army began acquiring land and four years later, after America entered the war, constructed Camp Hale near Pando, Colorado. This facility was home of the 10th Mountain Division that specialized in mountain and skiing combat techniques. The base remained active as a branch of Fort Carson until 1957. In 1966, Camp Hale was declared surplus and the land turned over to White River National Forest.

Other lesser federal agencies also were at work within the Colorado mountains before 1945. Among these which continue today were the Weather Bureau and the Soil Conservation Service. Additional agencies were outgrowths of President Franklin Roosevelt's New Deal of the 1930s. (See the Great Depression and World War II theme.)

CHRONOLOGY

1891	General Revision Act passed marking the end of unregulated exploitation of the public domain.
	White River National Forest created--second such reserve in U.S.
1891-1917	All present National Forests established--some have been renamed and boundaries adjusted since then.
1898	Grazing permit system on national forests announced.
1900	Timber reserves allow sheep grazing, previously excluded.
1902	Bureau of Reclamation created by Newlands Act.
1905	Grazing fee system announced for National Forests, starts 1906.
	National Forests transferred from Department of the Interior to Department of Agriculture.
1905-1909	Gunnison Tunnel under construction.
1907-1911	Fred Light case about timber reserves in federal court system.
1915	Rocky Mountain National Park established.
1916	National Park Service created.
1923	Florrisant Fossil Beds National Monument established.
1929	Holy Cross National Monument established.

1934 Taylor Grazing Act passed.

1942 Camp Hale opened.

LOCATION

Cultural resources attributable to federal activity in the Colorado mountains are located throughout the region. They are located primarily in or near the federally-managed lands in the area. These include National Forests, Public Domain and National Resource lands, National Parks and Monuments, Bureau of Reclamation tracts, and others. No pattern for the occurrence of these lands can be established except that most of the present federally-controlled lands were those that, for one reason or another, did not attract people who would file claims on them.

CULTURAL RESOURCE TYPES

Sites include: Range Improvement Projects

Structures include: Forest Headquarters (USFS), Park Superintendant's Office (NPS), District or Resource Area Offices (BLM), Project Director's/Manager's Office (USBR), Fire Cache, Fire Watch Tower, Ranger Station, Visitor's Center/Facilities.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

Historians in Colorado have been somewhat slow to recognize the role of the federal government in the high country despite the fact that the vast majority of land there is under government management. However, three studies have been completed that are very useful to researchers on this topic. Elmo Richardson's The Politics of Conservation, and McCarthy's Hour of Trial are very good in describing the political tug-of-war caused by the early forest reserves and federal attempts to protect natural resources. Shoemaker's Saga of a Forest Ranger is interesting and informative about the difficulties "tree agents" had in the early years of the Forest Service in Colorado. Further, information can be gained from the five Bureau of Land Management Class I histories of the area. Also useful are histories of National Forests that have been completed, especially those that date to the 1920s and 1930s, available at the Colorado Historical Society or from the Regional Office of the Forest Service. Two manuscript collections at the University of Colorado, The Taylor Papers and the Frank Delaney Papers, are extremely useful because the two individuals were deeply involved in federal legislative efforts for conservation during the twentieth century, Taylor being the father of the Taylor Grazing Act. The Colorado Historical Society and Denver Public Library's conservation department also have useful documents. Other federal programs can be detailed from government documents and agency records available in the Denver area, such as the Geological Survey library in Golden. Local newspapers also are useful because often they openly debated the pros and cons of the land use and federal involvement issues.

Number/Condition

The present data base is inadequate to determine the number, type, and condition of resources associated with this theme that existed or once may have existed. However, some sites, such as the Horsetooth Ranger Station, have been recorded, and this process will no doubt continue as federal authorities become more aware of their place in regional history. Some resources will probably never be recorded because offices and facilities were leased in commercial buildings and the federal authorities did not build their own structures for administrative purposes. Thorough research of documentary evidence may reveal the location of all federally-used facilities in the study area at some future date.

Data Gaps

*Representative early examples of federal administrative centers.

*Representative early examples of soil, water and other resource conservation efforts.

*Representative early example of vegetative manipulation efforts.

*Representative examples of early efforts at range control or improvements.

Future Needs

At some future date, a survey to find resources associated with this theme should be undertaken, but to control costs, it should be done in conjunction with further work on the Main Street Program (for administrative facilities) or with general resource utilization surveys such as logging. These efforts should be conducted in close cooperation with the federal agencies involved and would be facilitated by development of administrative and/or resource histories. The surveys would require the special skills of the historian and historic archaeologist.

Important Resources

Important resources include representative and unique examples of resources associated with the theme or pioneering architectural styles of federal facilities in the region or nation. Resources that document or explain the importance and/or impacts of the federal government on the region's economy and lifeways during the twentieth century should be considered important. Those that explain or document the changes, technologies and methods of natural resource protection, enhancement or controlled utilization should be considered important also. Such evaluations and identifications should be done by both members of the agency involved and the resource users to account for all points of view.

RESEARCH QUESTIONS

1. What cultural resources, if any, can provide information on

the impacts of the federal government on the economy and/or lifeways of Colorado mountain residents?

2. What cultural resources, if any, can provide information to explain the role of the federal government in resource protection in the Colorado mountains?

3. What cultural resources, if any, provide information on the condition of natural resources before and after federal conservation efforts?

4. What cultural resources, if any, can document or explain early federal efforts at natural resource enhancement?

5. What cultural resources, if any, can document or explain the early federal efforts at controlled utilization of natural resources?

PHYSICAL CONDITION

Administrative Centers: should be in original or historic locations and should retain enough physical integrity to make function, dimensions, methods, and materials of construction readily apparent.

Fire Cache: should be in historic location and retain enough physical integrity and equipment to make function and methods of use readily apparent.

Fire Watch Tower: same evaluation standards as administrative centers.

Range Improvements: should retain enough physical integrity to make methods and technologies involved, purposes, and sizes readily apparent. If man-made features are included, they should retain enough physical integrity to make functions, dimensions, methods and materials of construction readily apparent.

Ranger Station: same evaluation standards as administrative centers.

Visitors' Center: same evaluation standards as administrative centers.

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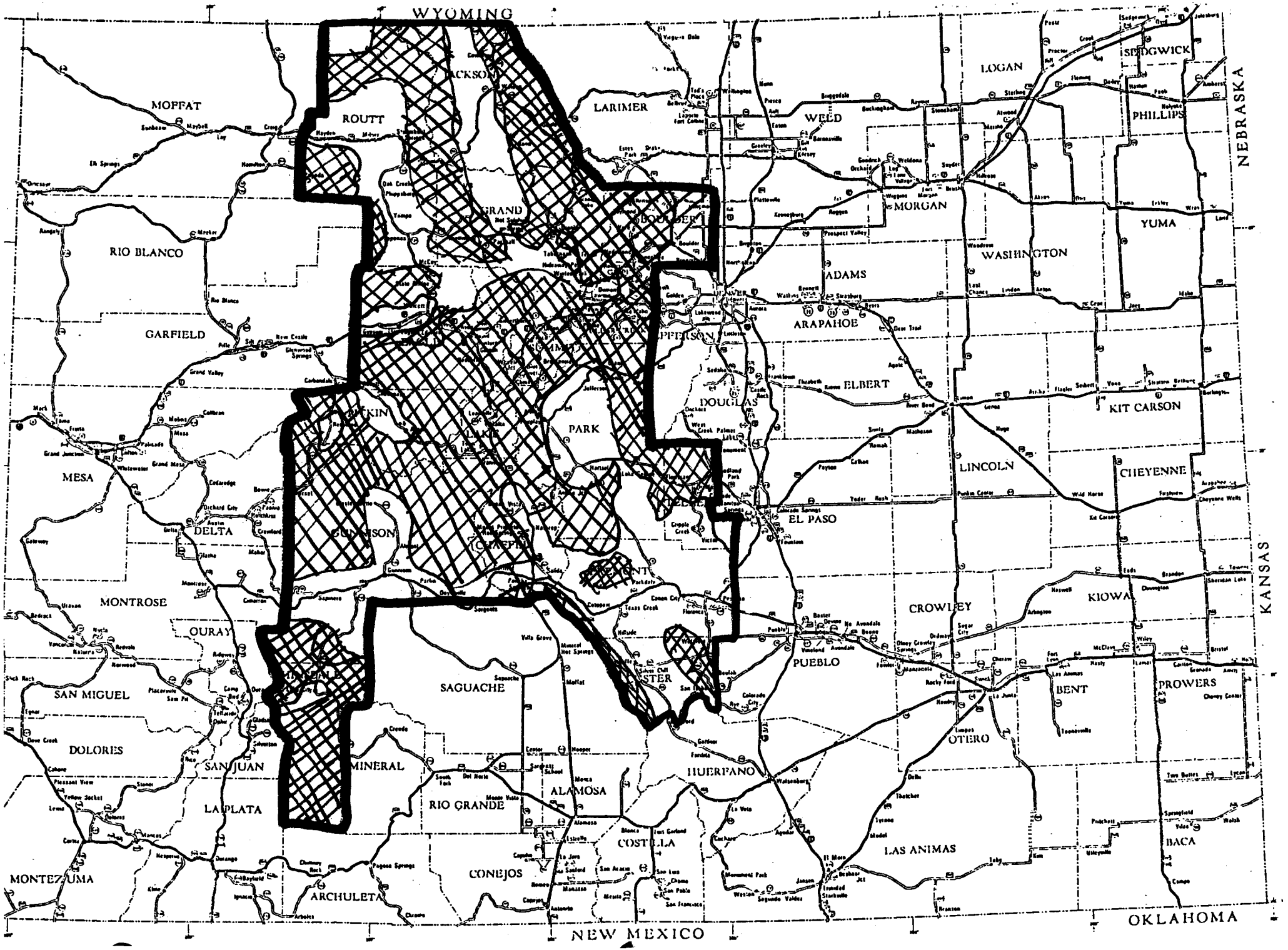

FEDERAL INVOLVEMENT

17. THE GREAT DEPRESSION AND WORLD WAR II, 1920-1945

NARRATIVE

The Great Depression, generally viewed as the severe downturn in economic activity that took place following the Wall Street stock market collapse of 1929, actually started about ten years earlier for much of the Colorado high country. Farming, ranching, and mining were depressed industries throughout the region during most of the 1920s. What differentiated the 1930s for the area was the large number of federal aid programs that came to the region to help residents weather the bad times. These programs were part of Franklin D. Roosevelt's New Deal that started in March of 1933.

Roosevelt was elected President when the nation and region were suffering the highest rates of unemployment and business failure on record up to that time. He and his cabinet felt strongly that the federal government should take an active part in the recovery process and many programs were initiated to accomplish that goal. One of their major goals was to reduce unemployment, and the quickest way that could be accomplished was through federally funded public works projects. During the New Deal, four agencies had primary responsibility for these projects: the Public Works Administration (PWA), the Civil Works Administration (CWA), the Works Progress Administration (WPA), and the Civilian Conservation Corps (CCC). Each of these was represented at one time or another in the Colorado high country.

The PWA, WPA and CWA all were adult oriented and usually concentrated their efforts in or near towns. The administrations built civic structures, improved roads and streets, built new highways, provided sewage and water treatment facilities, created art and and literary works, worked on irrigation systems and did other lesser things. Often, such projects not only helped the local economies but also accomplished things that municipal or county governments could not afford or did not have the inclination to undertake.

The CCC differed from these other agencies in both orientation and project location. The CCC was made up of unemployed male teenagers from around the nation who usually were employed in areas other than from where their hometowns were. Not only would they be put to work, but they would also see part of America. Many who did CCC time in Colorado's mountains came from Oklahoma and other Great Plains states. Their projects generally were on federal lands such as national forests and directed at things such as trail building, erecting camp and recreation facilities, or working on range and forestry improvements.

Other New Deal agencies also left their mark on Colorado's mountains to varying degrees. Instead of having direct government spending for implementation of projects (as provided through the PWA), most of the other agencies granted or loaned money to individuals to build or expand their businesses. One of the most active in Colorado's mountains was the Reconstruction Finance Corporation (RFC), that helped companies such as the

Denver and Rio Grande Western Railroad build the Dotsero cut-off. Another thrust of the federal recovery effort was the formation of agencies to control production and competition to assure everyone a chance at a fair profit. Two such agencies were very active in Colorado's mountains: the Agricultural Adjustment Administration (AAA) and the National Recovery Administration (NRA). The AAA set production quotas for farmers and ranchers and also granted money not to produce. This help allowed many area agrarians to stay in business, although others simply gave up and sold out. The NRA was for businessmen, and it set wage and price guidelines for business concerns. While neither of these agencies was associated with the great building programs like the WPA, both helped high country farmers and merchants survive the depression. Additional schemes, such as the remonetization of silver and large government purchases of the metal, were tried in order to stimulate revitalization of mining. This plan failed.

Although all these New Deal programs helped the local economies stay alive during the 1930s, it was the advent of World War II that caused prosperity to return to the region. Government purchases of metals for armaments and demands for food stimulated the high country economy and by 1943, the region's economy was booming. Soon, however, the people realized the wartime boom was only transitory and by 1945, many feared a return of the Great Depression. In face of these anxieties and fears of the war taking its toll on area families, the people persevered and greeted peace with guarded optimism.

CHRONOLOGY

1920s	Sharp depression at the beginning of the decade that ends quickly for much of the U.S., but high country remains depressed with slumps in mining and farming.
October, 1929	Wall Street collapse signals beginning of Great Depression.
March, 1933	Franklin Roosevelt takes over as President--undertakes New Deal recovery program which continues until 1945.
1933	Public works phase of New Deal initiated in Colorado high country.
1939	World War II breaks out in Europe.
1940	Roosevelt reelected to third term as president and starts a rearmament program.
1941	U.S. official entry into World War II and four year wartime boom ends the Great Depression for Colorado's high country and the nation.
1945	World War II successfully completed with Germany (May) and later, Japan (September) surrender.

LOCATION

Cultural resources related to this theme can be found throughout the region. Most of the large public works projects are located in or near cities or towns except those of the Civilian Conservation Corps. Their efforts were concentrated on federally-controlled lands. Other evidences of the New Deal can be found scattered through the area including major public works such as the Dotsero cut-off to small erosion prevention projects fostered by the Soil Conservation Service.

CULTURAL RESOURCE TYPES

Sites include: Hiking Trails, Range Improvements.

Structures include: CCC Camp, Public Works Building, Visitor's Bureau.

Districts include: Irrigation Systems.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

The Great Depression has captured the attention of more historians than almost any topic of twentieth century American history, especially in the years after 1945. Franklin Roosevelt and his leadership have intrigued the professional and liberal communities since 1933, and continues to do so. Also, the New Deal has had more than its share of studies. Two of the most reliable authors on Roosevelt and his administration are William Leuchtenburg and Frank Fridel. These two have authored many additional volumes and articles on the 1930s. Beyond their efforts, there are biographies, autobiographies, and memoirs published on nearly every major and many minor political leader and braintruster.

Roosevelt's major New Deal programs, such as the Agricultural Adjustment Administration, have been examined by historical researchers. The present conservation trend in America is leading to reinterpretations and every year more and more studies are available on the Great Depression. The New Deal in Colorado is best recorded in a University of Denver dissertation by James Wickens, "Colorado in the Great Depression." Other usable sources are Governor Edwin Johnson's papers and interviews at the Historical Society and the state archives. Some materials in manuscript collections at Denver Public Library and Norlin Library at the University of Colorado are also useful. Collections of government documents, such as Norlin Library's, contain tens of thousands of publications by the New Deal agencies. Also, the New Deal itself generated many useful historical documents such as the Civil Works Administration files. One interesting book that is somewhat typical of administrative histories done by the agencies is Gleyre and Alleger's History of the Civilian Conservation Corps in Colorado. Researchers should check card catalogs to find like studies if they have been done on the various programs or agencies.

Number/Condition

The present data base is insufficiently refined to adequately ascertain the number, type and condition of resources associated with this theme that exist or once existed. This is because no New Deal resources have yet reached fifty years old. This has caused them not to be included in surveys because they are not yet eligible for the National Register of Historic Places. The exception to this are some of the Civilian Conservation Corps projects, such as hiking trails and campgrounds that have been recorded when they were redeveloped for continued use. Probably at one time more than 1,000 resources associated with this theme existed. The condition varies from destroyed to intact and presently in use.

Data Gaps

*Representative Civilian Conservation Corps camp.

*Representative examples of the various types of public works projects undertaken by New Deal agencies.

*Representative examples of land, range, forest, and natural resource enhancement projects of the 1930s.

Future Needs

At a future date, a survey should be undertaken to identify the resources that are associated with this theme. To control costs, the effort should be made only after extensive documentary research has been done and should be conducted in conjunction with other surveys, such as ones looking for federal government theme resources or as part of the continued and expanded Main Street surveys. Such an undertaking would require the special skills of an historian trained in twentieth century western history, and who is familiar with field work techniques. These surveys, while low priority currently, should be given higher and higher importance in the Colorado Preservation Office planning process as more of the resources cross the fifty-year old threshold.

Important Resources

Those resources that document or explain the role of the federal government in aiding the economic survival of residents of the Colorado Mountains during the 1930s should be considered important. Those that offer information to confirm or modify present historical understanding of the New Deal also are important. Representative public works and improvements to federal lands should be given special consideration for their association with this theme. Many may also be "cross-referenced" for importance to other themes such as lumbering, ranching or federal activity, and this should be considered.

RESEARCH QUESTIONS

1. What resources, if any, can explain or document the impacts

of the Great Depression on Colorado Mountain lifeways, including minorities or women?

2. What resources, if any, can explain or document the impacts of the New Deal on high country lifeways and economic pursuits?

3. What resources, if any, can document or explain the impacts of public works projects on the Colorado mountains?

4. What resources, if any, can explain or document impacts of the New Deal on high country industrial activity?

5. What resources, if any, document or explain New Deal impacts on urban lifeways in Colorado's mountains?

6. What resources, if any, document or explain New Deal impacts on Colorado mountain agriculture?

PHYSICAL CONDITION

CCC Camp: enough of the structures should remain intact to make overall dimensions and spatial relationships apparent. The structures should retain enough physical integrity to make function, dimensions, methods of and materials of construction readily apparent.

Hiking Trails: should retain enough physical integrity to make function, dimensions and man-made features readily apparent.

Irrigation Systems: see water and power context report for evaluation standards.

Public Works: should be in original location and retain enough physical integrity to make function, purpose, methods and materials of construction readily apparent.

Range Improvements: enough man-made features and/or historic vegetation manipulations should be present to clearly establish man's presence and impacts on the resources.

Visitors' Center: same evaluation standards as Public Works.

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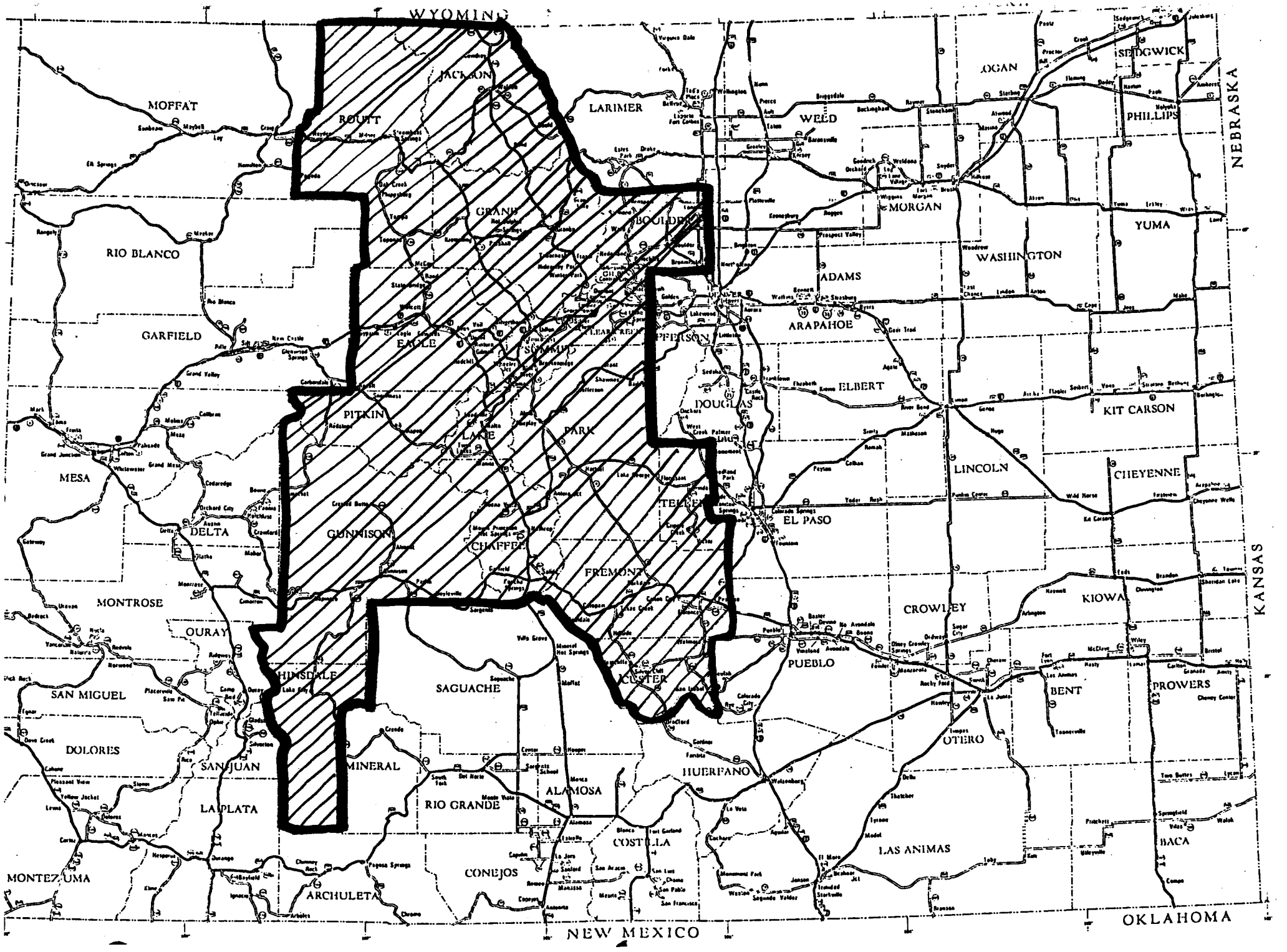


THE GREAT DEPRESSION

18. SOCIO-CULTURAL DEVELOPMENTS

NARRATIVE

The development of a single distinctive socio-cultural system never took place in Colorado's mountains. Because of the rapid rate of transportation and communication, the high country constantly was bombarded by ideas and methods from the rest of the state and nation. Also, the diversity of socio-cultural systems was compounded since many of the region's pioneers were immigrants from other parts of the United States, and they sought to duplicate or adapt the social system and culture of their heritage. However, the various phases and types of economic activity in the region did engender distinctive social conditions that differentiated them from other economic groups in the region and from other areas of the state.

Most of the socio-cultural developments in the high country were closely associated with the towns. The urban orientation of mining and transportation meant that the population centers evolved with the initial economic development and settlement. Further, the rapid and efficient transportation facilities so necessary for economic development in the region made access to these budding cities readily available thereby facilitating a more rapid spread of ideas than would occur in a rural setting. The relative wealth of many early mountain towns such as Aspen, Leadville, or Central City, meant that money to support cultural activities was also available. These factors, combined with a desire to replicate the rest of the world and develop an air of "civilization" led to construction of cultural institutions such as opera houses and grand hotels, as well as social service institutions such as schools, libraries, and firehouses.

The local leadership in each town supported such facilities and worked to do other things that would improve the quality of life. Often this involved such things as hiring traveling troups of actors or musical performers, and buying instruments for local players. Entrepreneurs often challenged the elite's sense of civilization by providing diversions of a baser sort. In male dominated mining camps or towns such as rail terminals or farm communities, a ready market was found for alcohol and gambling tables. The saloonkeeper usually arrived at the new town shortly after its founding and stayed on until the community instituted "dry laws." Not until World War I and the passage of a state prohibition law did this change. The barroom served as a social center and meeting place for workingmen.

The large male population also supported prostitution in all its forms from cribs to plush bordellos. With the growing "respectability" or establishment of the town, city fathers frequently passed ordinances prohibiting "soiled doves" from practicing their trade. This usually led to spatial segregation with the brothels moving just beyond the town's limits.

Another sign of permanence and civilization as well as a frequent

excuse for clean-up campaigns against vice was the attraction of a state institution to a town. After the state capitol had been located in Denver, many communities tried for what they saw to be second best, a state college or university. Only one town was so privileged within the mountain region: Gunnison, site of Western State College. This institution became a nearly separate entity within the community. For towns not so blessed, efforts were made at attracting lecturers with expertise on pressing issues of the day or literary figures. This trend continued into the early twentieth century. One manifestation of it was the Chautauqua circuit that provided a form of information dissemination in much of the area until the 1920s. By the 1930s, the need for travelling speakers was greatly reduced with the spread of commercial radio and movie houses. During the Great Depression, many got to hear national and international leaders, were kept up to date on news and bombarded with advertising for products by these new devices. The impact of mass communications, first as newspapers and telegraph and later telephone and radio, did much to break the isolation of Colorado's high country.

Another factor that tended to encourage uniformity was the predominance of white, anglo-saxons in the area's population. Minority groups such as blacks were present but usually totally absorbed, at least culturally, by the dominant group. Residential segregation was practiced in some areas, but often this grew out of economic status with blacks and lower-class whites occupying the same areas. The experience of other groups was much the same, especially the white foreign-born peoples from Southern and Eastern Europe. Although they were ethnically different, the jobs they found and the society they lived in either so overwhelmed or so controlled their lives that much of their cultural heritage was lost. The one group that was a notable exception were the Chinese. During the early period and until about 1900, there was an active prejudice against these people that kept Chinese presence to a minimum. By that point, they were being hired to work in mines and other jobs where employers sought to keep wages to a minimum. Because of the prejudice, they were forced to live together away from other residential areas. This isolation allowed some of their customs to survive as did a strong sense of family in their culture.

CHRONOLOGY

1860-1900	Era of town building and development.
1860-1880	Mining frontier resulted in a male-dominated population throughout much of the area leading to certain cultural phenomenons and little regulation of vice.
1880-1900	Railroads bring "civilization" and mass culture to the high country.
1890-1930	Lecture circuit and Chautauqua very popular bringing national ideas to the region.
1911	State Normal School, later known as Western State College, established in Gunnison.

1920s-1945 Spread of radio and movie houses brings national and state-wide cultural manifestations to the area.

LOCATION

The location of cultural resources associated with this theme can be found in towns throughout the high country. Some resources such as college education facilities are located only in specific areas as are those related to some ethnic groups such as the Chinese. Not all peoples left evidence of cultural resources unique to their culture in the mountains. Many of the cultural resources involved in this topic are closely related to the development of an urban fabric and that concept should be considered when looking for resources associated with this theme. Also, resources with important associations to this theme might have architectural significance as well.

CULTURAL RESOURCE TYPES

Structures include: Bank, Barroom, Bordello, Church, College/University, Crib, Fraternal Hall, Lecture Hall, Fire House, Movie House, Opium Den, Opera House, Radio Station.

Districts include: Commercial District, College/University District, Neighborhood District, Residential District, Red Light District.

THE QUANTITY AND QUALITY OF EXISTING DATA

Historical Documentation

The catchall nature of this theme means that about any topic, either specifically covered or not, may apply or have applicable information. The general histories of the state, Athearn, The Coloradans, Ubbelohde, Benson and Smith, A Colorado History and Hafen, Colorado and Its People all have data for researchers on this theme. To a lesser extent, Vandenbushe and Smith, A Land Alone, is pertinent to this theme as well. Useful for the study of ethnic minority or women's topics are the "peoples of Colorado" series such as Hughes's volume on American Indians. Topics such as urban development and town life are covered in book's such as Duane Smith's Rocky Mountain Mining Camps or those on specific towns such as Marshall Sprague's Money Mountain (Cripple Creek). Studies such as ones on prostitution, the Klu Klux Klan or social mobility are all available and should be consulted on a topic by topic basis. Further, many diaries, journals or reminiscences are available either in published or manuscript form. The Colorado Historical Society, Denver Public Library, and Norlin Library at the University of Colorado all contain collections germain to one or more topics associated with this theme. City and county directories, newspapers, and magazines all can provide data for specific research topics, as can county records, especially police records. It is unfortunate that to date no one has tackled this rather all-inclusive theme in a study, but no doubt some day a synthesis of existing data will become available.

Number/Condition

The present data base is insufficiently refined enough to ascertain the number, condition and type of resources associated with this theme that once existed or may have existed. Nevertheless, any reasonable estimate should be over 5,000. Probably because of the mobile nature and illegal or socially unacceptable nature of the activities associated with this theme, documentary evidence and cultural resources will never be found to reach an absolute number. The present condition varies from destroyed to still in use or preserved as museums.

Data Gaps

*Because of the all-encompassing nature of this theme and the thousands of recorded sites, no significant data gaps are known to exist at this time.

Future Needs

Two needs presently exist for the future studies of this theme. First, reevaluation and possibly rerecording of some sites with consideration of this theme, especially to include women and minorities, should be undertaken. Secondly, to continue and expand the Main Street Program of surveys to be more comprehensive and more complete in their consideration of social themes in the mountain town's past.

Important Resources

Those resources that substantiate, document, or offer interpretations of the role of ethnic groups, racial minorities, or women in the historic development of the Colorado mountains, should be considered important. Cultural resources that help clarify social mobility and/or stratification patterns in the high country are important also. Beyond those two rather broad categories, many resources of importance may also have associations of importance to other themes as well, and this should be considered when evaluating resources.

RESEARCH QUESTIONS

1. What resources, if any, remain that can provide information on the role of ethnic groups in the historic development of Colorado's mountains?

2. What resources, if any, remain that can provide information on the role of racial minorities in the historic development of Colorado's mountains?

3. What resources, if any, remain that can provide information on the role of women in the historic development of Colorado's mountains?

4. What resources, if any, remain that can document, establish or explain patterns of social mobility in the Colorado mountains?

5. What resources, if any, remain that can document, explain or establish patterns of social stratification in the Colorado mountains?

PHYSICAL CONDITION

Bank: should be in original or historic use location and retain enough physical integrity to make function(s), dimensions, methods and materials of construction readily apparent.

Barroom: same evaluation standards as bank.

Bordello: same evaluation standards as bank. Associated outhouse pits should not have experienced surface or subsurface disturbance so function of house can be ascertained from debris.

Church: same evaluation standards as bank.

College: enough historic structures should remain and be in original location to determine spatial relationships and patterns of expansion. Individual structures have the same evaluation standards as bank.

Commercial District: same evaluation standards as college.

Crib: same evaluation standards as bordello.

Fraternal Hall: same evaluation standards as bank.

Lecture Hall: same evaluation standards as bank.

Fire House: same evaluation standards as bank.

Movie House: same evaluation standards as bank.

Opium Den: should be in historic use location and should not have experienced surface disturbance, so any archaeological evidence will retain integrity.

Opera House: same evaluation standards as bank.

REFERENCES

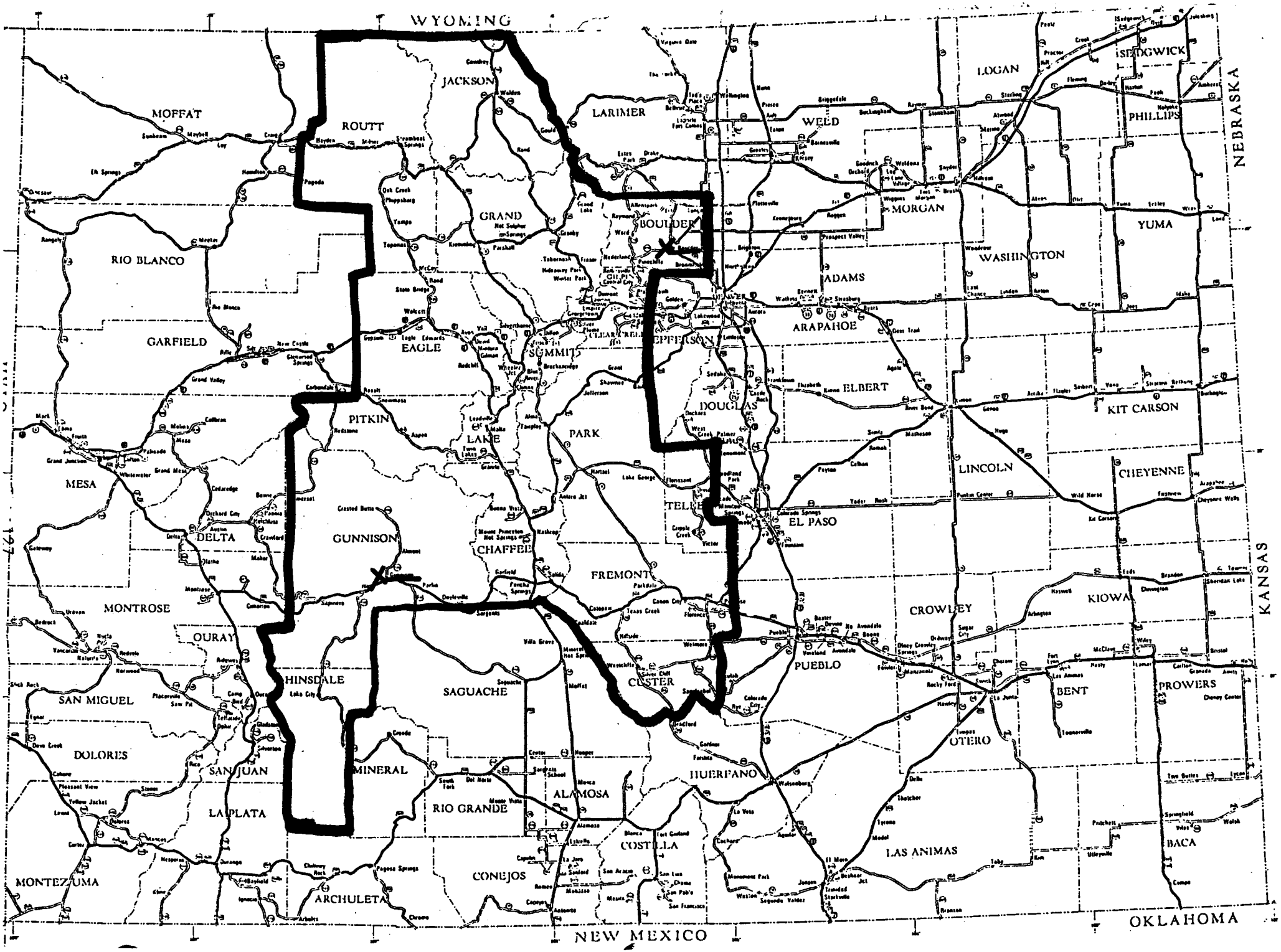
Carl Ubbelohde, ed. A Colorado Reader. Boulder: Pruett Press, 1962.*

Ubbelohde, Benson and Smith. A Colorado History. Boulder: Pruett Press, 1982.*

Robert G. Athearn. The Coloradans. Albuquerque: University of New Mexico Press, 1976.*

Also consult local and county histories for information on this topic.

*Available in Paperback.



SOCIO-CULTURAL DEVELOPMENTS