USGS
science for a changing world

U.S. Department of the Interior
U.S. Geological Survey

Historic Trail Map of the Denver 1° × 2° Quadrangle, Central Colorado

By Glenn R. Scott
1999

Geologic Investigations Series
I-2639 (Sheet 1 of 2)
Pamphlet accompanies map

Prepared in cooperation with
The Denver Public Library,
Western History and
Genealogy Department

INTRODUCTION

Colorado contains the equivalent of 14 areas the size of the Denver quadrangle, and each area contains about 7,200 square miles. The Denver quadrangle contains all or parts of 14 counties, named here with their dates of founding:

Adams 1902	El Paso 1859
Arapahoe 1855	Gilpin 1861
Boulder 1859	Grand 1874
Clear Creek 1859	Jefferson 1861
Denver 1902	Park 1861
Douglas 1859	Teller 1899
Elbert 1874	

The eastern part of the Denver quadrangle was originally in Arapahoe County, which was the western end of Kansas Territory. The western part of the Denver quadrangle west of the Continental Divide was in Utah Territory. According to Brown (1976, p. 13), Kansas Territorial Legislature established Arapahoe County in 1855, but then abolished it in 1861 and divided that area into five new counties: Montana, El Paso, Oro, Broderick, and Fremont, designations that lasted only a short time. After Jefferson Territory was informally established in 1859, the people in that new territory no longer needed to obey the directives from Kansas Territory. The formal Colorado Territory was established on February 28, 1861, and Colorado officially became a state in 1876. Settlement of the Denver quadrangle area had started in 1858 when gold was first discovered. The first problem that faced the gold-seekers was how to get into the mountains where the gold was. At that time there were no wagon trails, and access was even difficult for walkers because of the bouldery or drowned valley bottoms.

HISTORIC TRAILS AND WAGON ROADS

Many of the historic trails in the Denver quadrangle were used by Indians long before the white man reached the area. The earliest recorded use of the trails by white men in the Denver quadrangle was in the 1830's to 1850's for trade with the Indians. More intensive use of the trails began after 1858 when roads were built into the mountains from the new settlement of Denver. Discovery of gold in the Rocky Mountains in central Colorado in 1858 led to the surveying and establishment of several new trails from the east to the future site of Denver, thence to the newly discovered gold fields in the nearby Front Range. These trails included (1) the Overland Trail (a branch from the Oregon Trail), which ran southward along the southeast side of the South Platte River from Julesburg and Greeley to Denver, and (2) the southern part of the Fort Morgan Cutoff, which as a bypass of the Overland Trail went essentially straight southwestward from Fort Morgan to Denver, thus saving nearly 40 miles of travel. Coming in from Kansas across the dry plains of eastern Colorado were the Leavenworth and Pikes Peak Express Road and the Smoky Hill North, Smoky Hill Middle (Starvation Trail), and the Smoky Hill South Trails. Trending north-south on the east side of the mountains was the Cherokee Trail that branched off from the Santa Fe Trail at La Junta, Colorado, and went up the Arkansas River, then followed Fountain Creek up to Colorado City, and on through Denver to Virginia Dale near the Wyoming border. The Trappers Trail, which came northward from Taos, New Mexico, was nearly coincidental with the Cherokee Trail through the Denver quadrangle.

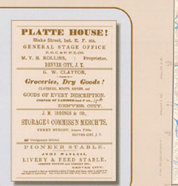
Stage lines and stations were established on the Overland Trail, the Fort Morgan Cutoff, the Leavenworth and Pikes Peak Express Road, and the three Smoky Hill routes. When the trails were built, an effort was made to choose level routes; however, very little grading was done, so the horses, mules, or oxen were constantly traveling down into valleys and back up the other side or were fording streams. Diaries of the travelers give accounts of the stages turning over when traversing slopes along valleys. The stages traveled as rapidly as the drivers could get the horses or mules to run. Teams were changed about every 10–15 miles at stations where extra stock were kept in order to provide rested and vigorous animals that could maintain the schedules. These stations were called "swing" stations but they provided little comfort to the passengers, as stops were only long enough to provide for the changing of the teams. About every fourth station was equipped with a kitchen and dining room so that the passengers could eat meals three times a day. These stations were called "home" stations. Some of them had beds, but generally the stages did not stop for the night and the passengers had to sleep on the coaches as they traveled through the night. Because of the sparseness of trees along the stage routes, many of the stations were simply dugouts along the banks of streams or into the sides of hills. Some stations were made of adobe or rarely of logs or lumber.

Part of the profit for the stage companies came from the transport of mail and freight. The stage contractors had to bid for the privilege of carrying the mail, and the competition along some stage lines was very keen, even though the profit was somewhat meager. Although the stage routes were established by the mail contractors to haul mail and passengers, the routes were also used by freighters, immigrants, and gold seekers. During most of the time the trails were used, travel was hazardous for several reasons. The best known reason was that the Indians were antagonized by the intrusion of the white settlers into their native lands; therefore, the Indians tried to discourage settlement. The Arapaho, Cheyenne, and Utes were particularly troublesome in the Denver quadrangle. Treaties between the tribes and the government were agreed to, but were not kept by either the Indians or the white intruders. In the early years (1858–1863) when there were few travelers into Colorado, there was much less trouble than in the later years (1864–1869) when travel increased. The trouble escalated when the military attempted to prevent the Indians from harassing the travelers along the stage lines. Retaliation by the Indians became most active after the Sand Creek massacre on November 29, 1864, at a big bend of Big Sandy Creek in Cheyenne or Kiowa County, about 12 miles southeast of Kit Carson. Travel along all of the stage lines into Colorado was slowed or curtailed for several months after the massacre (Scott, 1975). To protect the travelers along the stage routes, the U.S. government fortified and stationed troops at some of the existing stage stations. New forts that were garrisoned with other small troops of cavalry were also set up along some of the trails. Travelers were forced to travel in groups, and the cavalry controlled the number of wagons in each traveling group and provided escorts to assure their safety from Indian attacks. A systematic effort to kill off the bison on the plains and thus deprive the Indians of their main food supply probably accomplished more than any other method to stop the depredations of the Indians and force them into submission and onto reservations.

FAR WEST STAGELINE NOTICE TO PASSENGERS

Adherence to the following rules will insure a pleasant trip for all:

1. Abstinence from liquor is requested, but if you must drink, share the bottle. To do otherwise makes you appear selfish and un-neighborly.
2. If ladies are present, Gentlemen are urged to forego smoking cigars and pipes as the odor of same is repugnant to the Gentle Sex. Chewing tobacco is permitted, but spit W I T H the wind, not against it.
3. Gentlemen must refrain from the use of rough language in the presence of Ladies and Children.
4. Buffalo robes are provided for your comfort during cold weather. Hogging robes will not be tolerated and the offender will be made to ride with the Driver.
5. Don't snore loudly while sleeping or use your fellow passenger's shoulder for a pillow; he (or she) may not understand and friction may result.
6. Firearms may be kept on your person for use in emergencies. Do not fire them for pleasure or shoot at wild animals as the sound riles the horses.
7. In the event of runaway horses, remain calm. Leaping from the coach in panic will leave you injured, at the mercy of the elements, hostile Indians and hungry Coyotes.
8. Forbidden topics of discussion are Stagecoach robberies and Indian uprisings.
9. Gents guilty of unchivalrous behavior toward Lady Passengers will be put off the Stage. It's a long walk back. A word to the Wise is sufficient.



PLATTE HOUSE!
Blake Street, bet. E. F. sts.
GENERAL STAGE OFFICE
C. O. C. & P. P. E. CO.
M. Y. B. ROLLINS, : Proprietor.
DENVER CITY, J. T.

G. W. CLAYTON,
Groceries, Dry Goods!
CLOTHING, BOOTS, SHOES, and
GOODS OF EVERY DESCRIPTION.
DENVER CITY.

J. M. IDDINGS & CO.,
STORAGE & COMMISS'N MERCH'TS,
FERRY STREET, Above Fifth.
DENVER CITY, J. T.

PIONEER STABLE.
JOHN WANLESS,
LIVERY & FEED STABLE,
DENVER CITY.

HINTS FOR PLAINS TRAVELERS

In 1877, the Omaha Herald published "Hints for Plains Travelers."

The best seat inside a stagecoach is the one next to the driver...with back to the horses, which with some people, produces...seasickness, but in a long journey this will wear off, and you will get...less than half the bumps and jars than on any other seat. When any old "sly Eph," who traveled thousands of miles on coaches, offers through sympathy to exchange his back or middle seat with you, don't do it.

Never ride in cold weather with tight boots or shoes, nor close-fitting gloves. Bathe your feet before starting in cold water and wear loose overshoes and gloves two or three sizes too large.

When the driver asks you to get off and walk, do it without grumbling. He will not request it unless absolutely necessary. If a team runs away, sit still and take your chances; if you jump, nine times out of ten you will be hurt.

In very cold weather, abstain entirely from liquor while on the road; a man will freeze twice as quick while under its influence.

Don't growl at food at stations; stage companies generally provide the best they can get. Don't keep the stage waiting; many a virtuous man has lost his character by so doing.

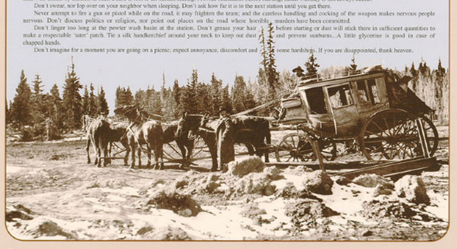
Don't smoke a strong pipe inside especially early in the morning. Spit on the leeward side of the coach. If you have anything to take in a bottle, pass it around; a man who drinks by himself in such a case is lost to all human feeling. Provide stimulants before starting; ranch whiskey is not always nectar.

Don't swear, nor lop over on your neighbor when sleeping. Don't ask how far it is to the next station until you get there.

Never attempt to fire a gun or pistol while on the road, it may frighten the team; and the careless handling and cocking of the weapon makes nervous people nervous. Don't discuss politics or religion, nor point out places on the road where horrible murders have been committed.

Don't linger too long at the pewter wash basin at the station. Don't grease your hair before starting or dust will stick there in sufficient quantities to make a respectable 'tater' patch. Tie a silk handkerchief around your neck to keep out dust and prevent sunburns...A little glycerine is good in case of chapped hands.

Don't imagine for a moment you are going on a picnic; expect annoyance, discomfort and some hardships. If you are disappointed, thank heaven.



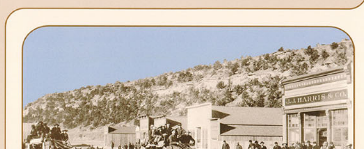
Concord stagecoach "No 7 US Mail," the "Cripple Creek stage," drawn by a team of six horses in the high country of Teller County, Colorado. Between 1890 and 1910. (L.C. McClure, MCC-3157)

Even if the Indian Tribes had been peaceful, travel along the Leavenworth and Pikes Peak Express Road and the Smoky Hill routes was hazardous because of the lack of water and game. The only source of water was from scarce springs, ephemeral water holes, and a few ephemeral streams. For example, in the summer of 1859 when the stage along the Leavenworth and Pikes Peak Express Road was operating, the Republican River in eastern Colorado held only a few water holes. Even the Big Sandy Creek was ephemeral and dried up. The shortage of game resulted from the early travelers eliminating the game or driving it away; thus, later travelers had difficulty in procuring meat. Along the Smoky Hill routes, many people died of thirst or starvation during the summers or froze to death during the harsh winters.

An example of the hazards to be met along a mountain stage road was given by Paul D. Harrison, Sr. (written communication, 1995), who described the route from Golden Gate to Blackhawk: "The route from Denver to Central [City] entered Golden Gate, an embryo village at the mouth of that Canyon several miles northwest of Golden City. Then came a long eight-mile pull to the top of Guy Hill, with the following descent into Guy Gulch steep and tortuous. Heavy wagons were eased down the hill by means of a snubbing post and tackle. Stage drivers largely ignored this method in favor of an arrangement of rough-locking the hind wheels of the coaches. From Guy Gulch was another long, stiff grade up to the Junction Ranch, thence southward up to the Smith Hill Divide. Here commenced another sharp descent of two miles from the divide into Clear Creek Canon, then followed two miles of easy road up the canon to Black Hawk."

The post roads and toll roads listed in the text pamphlet and shown on the historic trail maps were built quickly and had very rough surfaces compared to the paved and unpaved roads prepared today. Very little effort was given to make the early roads level, hence wagons were forced to climb or descend very steep slopes and to ford streams. Many types of vehicles used the roads, ranging from huge freight wagons to Conestoga wagons and small delivery wagons. Passenger vehicles also varied considerably in size from large stage coaches, to surreys, buggies, open spring wagons, or even hand carts such as were used by the Mormons during their immigration to Utah. Travel on the roads must have been very difficult after strong rains or heavy snowfall. On mountain roads, heavy snowfalls generally shut down the passage of both mail and passenger traffic. In this publication the actual routes of travel of stages from one point to another can be ascertained by reference to the lists of Post Roads which list the most-used routes of travel in the Denver quadrangle.

Westward movement and settlement of whites was encouraged by the Homestead Act of 1862. Many persons displaced by the Civil War moved onto the newly opened land even though the Indians were still a potential threat. After the General Land Office completed the land surveys in about 1870, many of the Indians had already moved out of the area. Much of the land became safe for settlement and small towns sprang up, generally spaced no more than 10 miles apart—the distance a team and wagon could travel to town and back in a day. Roads were built to connect the new communities and to provide access to the major trails. Finally, railroads were built westward across the Colorado plains to connect Denver and the mountain communities with the east.

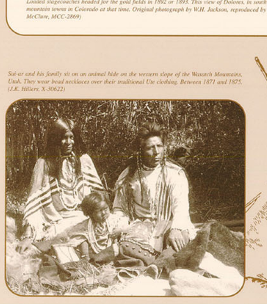


Loaded stagecoaches headed for the gold fields in 1892 or 1893. This view of Dolores, in southwestern Colorado, is typical of the mountain towns in Colorado at that time. Original photograph by W.H. Jackson, reproduced by L.C. McClure in 1920-1928. (L.C. McClure, MCC-2869)

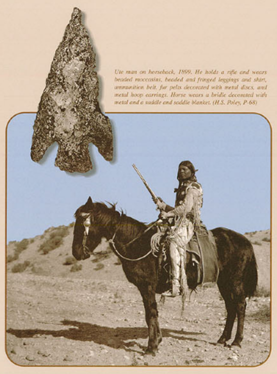
UNSOLVED PROBLEMS

Locations of many stage stations, road ranches (the popular name in the 1860's), and ghost towns are not well known because there were few detailed maps or descriptions of the exact locations of these features. Most of the available early maps were very generalized and lacked a surveyed grid; even after the General Land Office township grid became available, cultural features were located differently on almost every map published. More than 115 place names listed in the toll road charters could not be located or accurately placed on the Denver trail maps. In addition, many of the trails and features, such as stage stations, were abandoned before the land was surveyed and before the counties were organized, so these features cannot be found on the land plats or on county deed records. After the stage lines were abandoned, the station buildings were almost immediately torn down and scavenged as material for constructing buildings elsewhere. Cultivation of the land followed settlement, and the trails were plowed up or were obliterated by wind-blown sand from eroding fields.

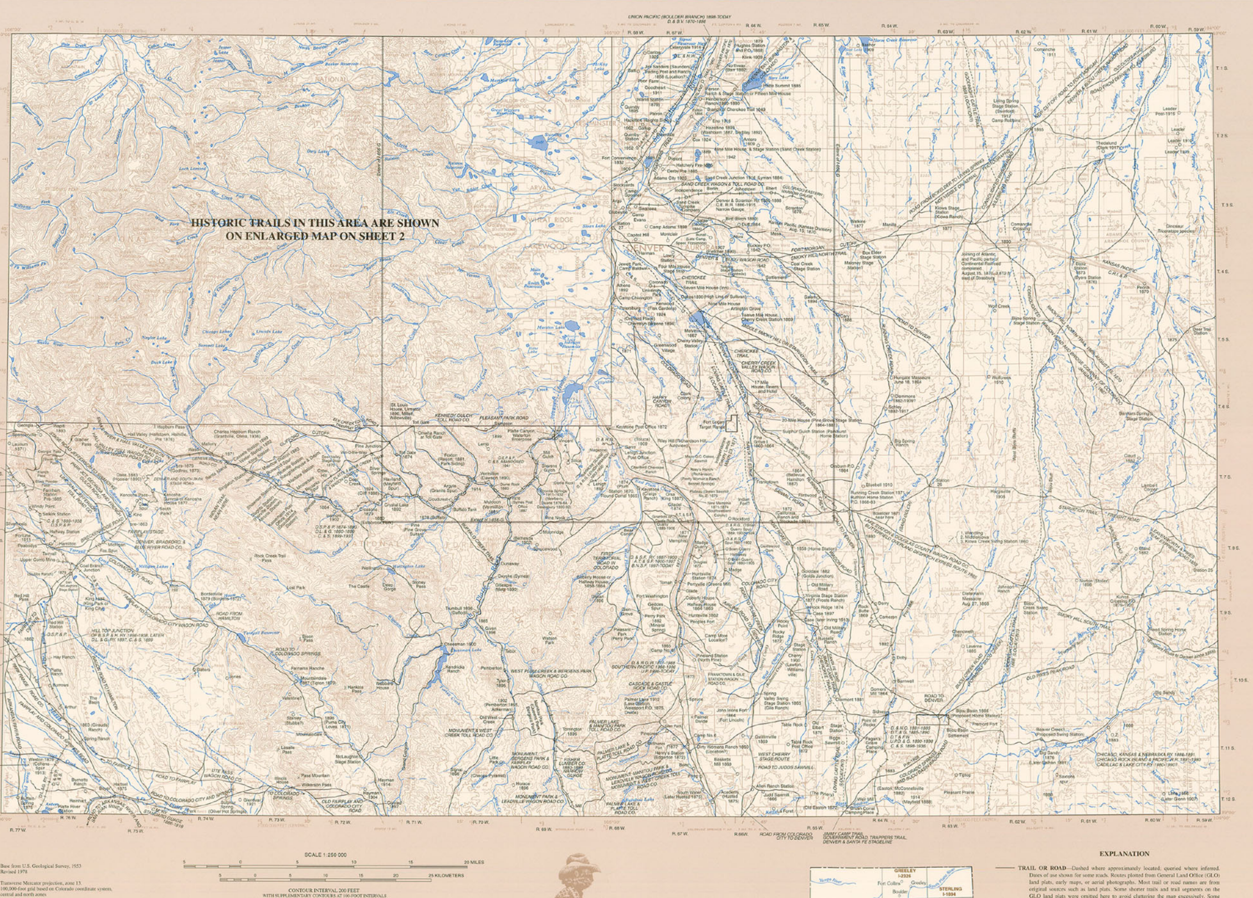
Sai-ar and his family sit on an animal hide on the western slope of the Wasatch Mountains, Utah. They wear bead necklaces over their traditional Ute clothing. Between 1871 and 1875. (J.K. Hillers, X-30622)



Portrait of a Ute man, his name is Negrito. He wears a hair-pipe breastplate and choker, a print shirt with metal arm bands, and an eagle feather in his hair. Between 1880 and 1900. (Nast, X-30582)



Ute man on horseback, 1899. He holds a rifle and wears beaded moccasins, beaded and fringed leggings and shirt, ammunition belt, fur pelts decorated with metal discs, and metal hoop earrings. Horse wears a bridle decorated with metal and a saddle and saddle blanket. (H.S. Poley, P-68)



HISTORIC TRAILS IN THIS AREA ARE SHOWN ON ENLARGED MAP ON SHEET 2

Base from U.S. Geological Survey, 1953
Revised 1978

Transverse Mercator projection, zone 13.
100,000-foot grid based on Colorado coordinate system, central and north zones

SCALE 1:250 000

CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100-FOOT INTERVALS
1978 MAGNETIC DECLINATION FROM TRUE NORTH VARIES
FROM 13° EASTERLY FOR THE CENTER OF THE WEST EDGE TO 12° EASTERLY
FOR THE CENTER OF THE EAST EDGE

INDIAN TRIBES

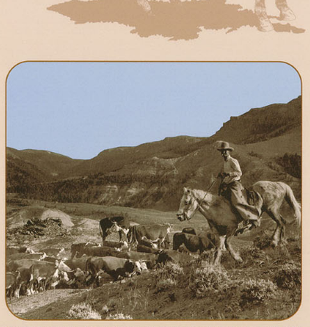
Until about 200 years ago, Indians were the only people living on the Great Plains and in the Rocky Mountains of Colorado. In central Colorado, the grassy plains were occupied principally by the Cheyenne and Arapaho tribes, and the mountains were occupied by the Ute and Southern Ute tribes. It was estimated that in 1780, the total population of Arapaho and Cheyenne on the Great Plains, before the white man had profoundly affected these tribes, was 3,000 and 3,500, respectively (Lowie, 1982). Generally, each tribe had its own language and customs, but sign language, consisting of numerous hand gestures, was the universal language. The Cheyenne, Arapaho, and Ute tribes lived a nomadic life dependent upon the availability of water, game, and edible plants. As they moved from place to place, the men carried weapons, while the women carried everything else, often using carriers called "travois," which were pulled by horses or dogs. The plains tribes lived in tepees made of 11-21 buffalo skins supported by 12-26 wood poles from 16 to 30 feet long (Clark, 1982). The size of the tepee depended upon the size of the family or the wealth of the owner. Tepees were pitched in circles with family members pitching their tepees near each other. The closable entrance usually faced east, and occupants slept on animal robes and on mats of willow rods and woven plants. A fireplace was located in the center of the tepee, and the smoke escaped through an adjustable vent flap at the top. The Utes also lived in tepees, as well as wickiups, which were dwellings made of wood poles that supported roofs made of interwoven sticks and grass.

Buffalo was the main food of the Cheyenne and Arapaho, and the near extinction of the buffalo in the 1880's was disastrous to them. The Utes hunted deer, mountain goat, antelope, and small game, and they gathered edible plants and berries. The plains Indians were almost entirely dependent on the buffalo. The buffalo could be as tall as six feet and weigh as much as a ton, and it could provide almost every necessity of life. It provided large amounts of meat and the buffalo chips to cook the meat. The buffalo also yielded hides for clothing and for shelter, tallow to burn for light, horns for spoons and utensils, bones for tools, bladders for containers, hair for ropes, and tendons for bow strings.

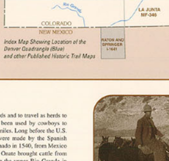
Full-length portrait of "WM. Shakspear, head Arapahoe," in 1899. He wears a feather headdress, porcupine-quill breastplate, and moccasins, and he holds a feathered shield, leader's flag, and blanket. (Rose & Hopkins, H-412)

Anthropologists believe that the Cheyenne, Arapaho, and Ute people were descendants of the first Americans who crossed from the Old World to the New World during Pleistocene time a little later than 15,000 years ago. A land bridge apparently linked Asia to America and migrants then gradually moved southward across both North America and South America. In the newly discovered land, the Indians found a great assortment of game animals, such as the Columbian mammoth, large bison, horse, camel, and grizzly bear. Some of these animals became extinct about 10,000 years ago, either because of unfavorable changes in climate or from overhunting. The early hunters had to develop weapons capable of killing these large animals. Their weapons included stone-tipped thrusting spears and the atlatl or spear thrower, which allowed the hunter to throw the spear farther than possible with his arm alone. The hunters also developed a method to stampede bison over cliffs. The bison that survived the fall could be dispatched with spears or with bow and arrow. Such sites have been found southeast of Denver.

When the white men first came west, the Indian tribes were very friendly, but when the whites took more of the land, killed the buffalo, and wanted the Indians put on reservations, the Indians began to fight back. However, the Indians were outnumbered and their source of food was almost eliminated. They were confined to reservations, and their ancient way of life came to an end.



Cattle roundup, date unknown. Although this photograph was taken in Wyoming, it is typical of cattle drives in the western United States. (C.J. Belden, Temp 01)



Index Map Showing Location of the Denver Quadrangle (Blue) and other Published Historic Trail Maps

EXPLANATION

——	**TRAIL OR ROAD**—Dashed where approximately located; queried where inferred. Dates of use shown for some roads. Routes plotted from General Land Office (GLO) land plats, early maps, or aerial photographs. Most trail or road names are from original sources such as land plats. Some shorter trails and trail segments on the GLO land plats were omitted here to avoid cluttering the map excessively. Some trails are terminated or their continuation is queried where their destination was not shown on original source. Locally, parts of the early trails are adjusted to better fit modern courses of streams. Trails date from 1850's to 1880's. Abbreviation used: CO. = Company
○	**TOWN OR OTHER CULTURAL FEATURE**—Approximately located; showing approximate date of founding of a town or establishment of a post office, not generally the date of the first person to arrive; alternate town names and dates are in parentheses. Most newer town names are in brown. Locations of towns shown on previously published maps vary widely, and some locations shown here may be inaccurate. Abbreviation used: P.O. = Post Office
×	**TOPOGRAPHIC FEATURE OR HISTORIC SITE**
—+—	**RAILROAD**—Date shows beginning or duration of operation. Currently operating railroads are shown in brown. Abbreviations of railroads are explained in the pamphlet text. For more details about railroads, see books about railroads listed in the "Sources of Information"
------	**CATTLE TRAIL**

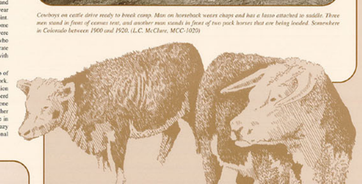
CATTLE TRAILS

Cattle have a natural tendency to gather in herds and to travel as herds to water or to pastures. This herding instinct has been used by cowboys to create huge groups of cattle for moves of many miles. Long before the U.S. cattle industry got started, the earliest drives were made by the Spanish "conquistador" Don Francisco Vasquez de Coronado in 1540, from Mexico to our present southwest. In 1598 Don Juan de Onate brought cattle from Chihuahua to the San Juan Indian Pueblo along the upper Rio Grande in New Mexico. America's greatest drives were along cattle trails from the home ranches in Texas to the towns and railheads in Kansas and Colorado. Some of the cattle trails in Colorado were the Goodnight Trail, the Goodnight-Loving Trail, the Loving Trail, the National Cattle Trail, the Chisholm Trail (along the Santa Fe Trail), and the Montana Cattle Trail.

The greatest herds along the trails were those of longhorn cattle in the middle and late 1800's. While at their home range, the herds required little attention, but moving them to distant markets required many cowboys and herders. Herds of 2,000 cows along the trail were common and in one year as many as 6,000 cows a day or 30,000 a month might pass a single point. Herds usually were started out of Texas in the early spring, although some started in the fall. Before the drive started, all of the longhorn cattle were branded with a distinctive road brand that would identify the drover who brought the cattle to the ultimate buyer. The brand also helped separate cattle in the herds after a stampede or if the cattle became intermixed with other cattle.

Although adventure was a great part of a drover's daily life, the job of driving cattle was tiresome, sometimes dangerous, and always hard work. During a cattle drive, each cowboy had an assigned duty and position relative to the herd. Two experienced cowboys rode at the head of the herd to guide and control the speed of the steers. Two swing riders were one third of the way back from the front, and two flank riders were another third back. The least agreeable positions were the drag riders who rode in the cloud of dust behind the herd. The drags had to keep the slow or lazy steers moving. The drives were monotonous except for occasional stampedes, meal times, and evening camps (Brayer and Brayer, 1952).

Cowboys on cattle drive ready to break camp. Man on horseback wears chaps and has a lasso attached to saddle. Three men stand in front of canvas tent, and another man stands in front of two pack horses that are being loaded. Somewhere in Colorado between 1900 and 1920. (L.C. McClure, MCC-1020)



Painting of longhorn cattle drive on the prairie. Date unknown. (Temp 03)

Photographic credits:
Photographs are courtesy of the Denver Public Library, Western History and Genealogy Department. The photographer (where known) and Denver Public Library call number for each photograph are shown in parentheses at the end of each caption. Arrowhead by F.C. Brunstein.

Any use of trade names in this publication is for descriptive purposes only and does not imply endorsement by the U.S. Geological Survey

For sale by U.S. Geological Survey Information Services
Box 25286, Federal Center, Denver, CO 80225

This map is also available as a PDF file at http://greenwood.cr.usgs.gov

Historical data compiled by *Glenn R. Scott* in 1995-1998

Publication design and digital layout by *Carol Quesenberry*
Original drawings by *Carol Quesenberry*
and *Roger Lawrence*
Editing and digital cartography by *F. Craig Brunstein*
Pamphlet text layout and digital cartography by *Denny Welp*
Trail map digitizing and digital cartography by *James Chappell*

Manuscript approved for publication, March 26, 1998

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1999

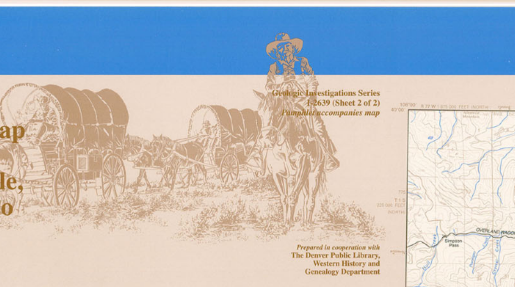
U.S. Department of the Interior 1849-1999

ISBN 0-607-89767-8
9 780607 897678

Printed on recycled paper

USGS
science for a changing world

U.S. Department of the Interior
U.S. Geological Survey



Historic Trail Map of the Denver 1° × 2° Quadrangle, Central Colorado

By Glenn R. Scott
1999

Geologic Investigations Series
I-2639 (Sheet 2 of 2)
Pamphlet accompanies map

Prepared in cooperation with
The Denver Public Library,
Western History and
Genealogy Department

RAILROADS

The first railroad to enter Colorado (except for a short line at Julesburg) was the standard gauge Denver Pacific Railway that came south from the Union Pacific line at Cheyenne. The Denver Pacific train crossed the Wyoming line about October 4, 1869, and reached Denver on June 17, 1870, pulled by the locomotive David H. Moffat. The last segment of a continuous chain of railroads across the United States was completed by the Kansas Pacific Railway crews on August 15, 1870, not at Promontory Point, Utah, as stated by many authors, but at Comanche Crossing just east of present-day Strasburg, Colorado. A Kansas Pacific train then reached Denver from Kansas City on August 15, 1870, providing service to the east and to the north. On September 22, 1870, the Colorado Central Railway finished a standard gauge line from Denver to Golden, Colorado.

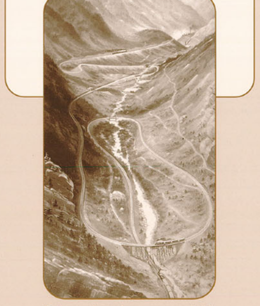
During the twenty years after 1870, railroad lines were proposed all across Colorado; many more were proposed than were completed. One of these that not only was successful but also became famous was the Denver and Rio Grande Railway, which was called the "Baby Railroad" because nearly all of its early trackage was narrow gauge. This railroad ran rails to most of the metal mining camps in Colorado. Several of these narrow gauge lines are still running in Colorado. For example, the Durango and Silverton Railroad, the Cumbres and Toltec Scenic Railroad, the Georgetown Loop Railroad, and the 2-foot-gauge Cripple Creek and Victor Railroad (Colorado Railroad Museum, 1961).

Denver & Rio Grande narrow gauge locomotive number 99, "Kokomo," built by Baldwin in 1880. Such trains were in use throughout the mountains of Colorado. Original photograph by W.H. Jackson between 1890 and 1910, reproduced by L.C. McClure. (L.C. McClure, MCC-3194)

Originally, access to the Colorado mountains was made possible by private parties who built toll wagon roads through the rugged valleys and over the mountain passes. Walkers, horseback riders, wagons, and stages used these roads and they were satisfactory for passengers and for light freight. However, when mining increased in the mountains and the tonnage of ore grew, the need for larger and faster ways of shipping called for railroads. Because of the steep grades and sharp curves in the mountains near the mining camps, narrow gauge lines were mostly used. Narrow gauge tracks are 3 feet wide, whereas standard gauge tracks are usually 4-feet 8.5-inches wide.

Snow created serious problems for the mountain railroads. Generally, the higher the mountains the deeper the snow. At first it was claimed that trains would seldom be delayed by snow. However, after a few long delays as long as 3 months or more, a solution to the problem had to be found. Snow fences were tried but they were found to be useless in keeping the tracks clear. Snowsheds were built at avalanche chutes and where blowing snow accumulated, and they immediately proved their worth. Snowsheds were wooden structures, sometimes quite long, that enclosed problem stretches of track. The snowsheds could be buried by avalanches or blowing snow, while trains safely chugged through the wooden structures (Colorado Railroad Museum, 1961; Thayer, 1892). In addition, special train engines were equipped with front-mounted rotary snowplows that could remove snow 10–12 feet deep, and hydraulic "ice picks" attached to the front of some engines cleared tracks covered by solid sheets of ice that could easily derail trains (Bollinger, 1950).

Locomotive of the Colorado Central Railroad and part of the mining town of Central City, between 1875 and 1881. Central City High School is the prominent two-story building in the upper part of the photograph. The steeple of St. Pauls Episcopal Church can be seen to the left of the school. The mountain slopes in view are underlain by resistant metamorphic rocks that in places contain mineralized veins that contain gold. (Joseph Collier, C-320)



The Georgetown Loop, the famous narrow-gauge tracks of the Colorado & Southern Railroad. View looking upvalley toward the town of Silver Plume in the upper right. Because the maximum grade up Clear Creek in a direct line from Georgetown to Silver Plume was too steep (9.75 percent grade) for trains to climb, tracks had to be laid so the grade did not exceed 3 percent. This required 4.5 miles of railroad track that gently climbed Clear Creek valley, whereas, by direct line the distance is a little over a mile. From an 1898 painting by W.H. Jackson. (Temp 16)

Denver & Rio Grande Railroad engine number 1006 and passenger train heading south from station at the town of Castle Rock. The prominent flat-topped butte in the background is also called Castle Rock, which was named by the Long Expedition in 1820. The town was named after the butte in 1871. About 1902-1908. (L.C. McClure, MCC-1709)

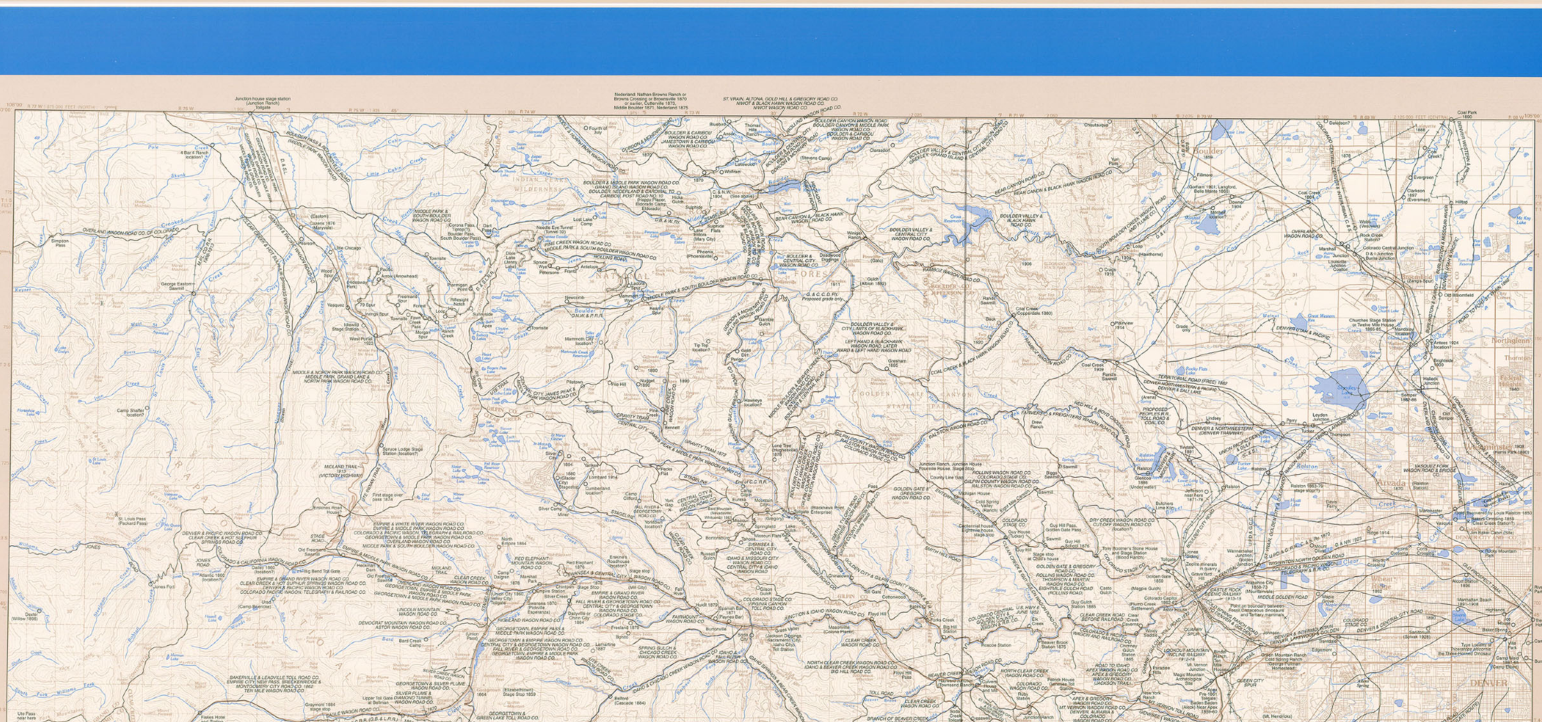
Miner panning for gold west of Denver. He swirls sediment and water in his gold pan. Between 1890 and 1910. (L.C. McClure, MCC-1918)

THE GOLD RUSH

In the 1850's, gold was found at several places near present-day Denver. In 1858, news of the strikes brought scores of people to the area seeking fame and fortune. The gold they found on the plains near future Denver was in small patches along the streams and was very fine, and each deposit was soon exhausted. The prospectors looked for placer gold in streams from the Pikes Peak area northward to the Wyoming border, but they failed to find any really profitable deposits east of the mountains. Nevertheless, when fall came and winter was approaching, several parties stubbornly refused to leave and stayed the winter of 1858–1859 near the confluence of present-day Cherry Creek and South Platte River and named their rapidly growing small communities Auraria, St. Charles City, and Montana City. Most newcomers brought few provisions with them, so within a short time even the staple foods were in short supply. A hundred pound sack of flour cost $20 if it could be found. Bacon, coffee, and sugar sold for 50 cents a pound. About the only source of food was wild game, such as bison, antelope, and mule deer. As time elapsed, hunters had to go farther from camp to find game. Also, after the ground froze, placer mining became almost impossible.

In 1858, there were almost 300 people in the three new towns and too few cabins to house them all, and only a few cabins had fireplaces. Some people either took turns in the warm cabins or slept around campfires outdoors. They also cooked all food outdoors. The discomfort and the difficulty of getting food began to decrease their interest in gold. Fortunately, on Christmas Eve 1858, Richens Lacy Wootton, a friend of William Bent and Kit Carson, showed up with a wagon he had driven from Taos, New Mexico, loaded with flour, sugar, bacon, dried apples, and bags of coffee. Soon the goods were unloaded into one of the cabins, and a store was started. Trades for such goods were made throughout the community. The item of greatest interest was three barrels of "Taos Lightning." FREE DRINKS FOR ALL!

The next spring, because of the lack of new gold finds, many discouraged gold seekers gave up and started their long journey back east to civilization. However, larger and more profitable gold deposits were found by George A. Jackson at present-day Idaho Springs on Jan. 7, 1859 (kept secret until spring), and by John H. Gregory at present-day Blackhawk on May 6, 1859. News of these new and more profitable strikes spread like wildfire. Soon thousands of fortune seekers started to Colorado from all over the country and from overseas. Thus, the gold rush of 1859 began, and an estimated 50,000–100,000 gold seekers flooded the area in 1859–1860. The search for gold then spread across most of Colorado. In the following decades, many deposits of gold, silver, and other valuable minerals were found in a mineral belt that extends from the San Juan Mountains northeast to Boulder (Dorset, 1970).



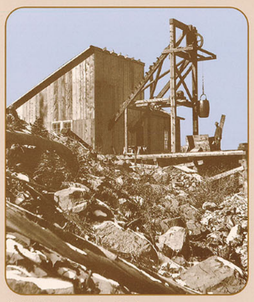
Base from U.S. Geological Survey
Denver West Quadrangle, 1983

Universal Transverse Mercator projection, zone 13.
10,000-foot grid based on Colorado coordinate system, central and north zones. 1927 North American Datum.
At center of map, magnetic north declination is 12° east (1983).

SCALE 1:100 000

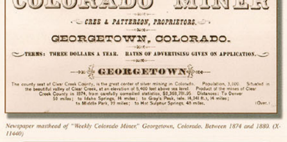
CONTOUR INTERVAL 50 METERS
(MULTIPLY METERS BY 3.281 TO OBTAIN FEET)
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Enlarged Map of the Northwest Quarter of the Denver 1° × 2° Quadrangle



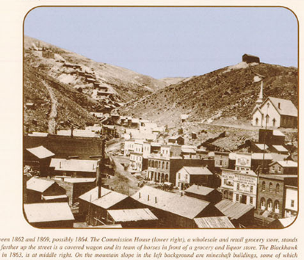
Mineshaft building in the mountains of Colorado, exact location unknown. Ore bucket is suspended over the mineshaft from wood headframe and pulley wheel. Between 1895 and 1900. (H.S. Poley, P-945)

Tom May and his burro "January" in a mining tunnel in the Mendota Mine, Silver Plume, Colorado. The burro carries two lanterns on its back. Between 1875 and 1890. (X-17659)



WEEKLY
COLORADO MINER
CREE & PATTERSON, PROPRIETORS.
GEORGETOWN, COLORADO.
TERMS: THREE DOLLARS A YEAR. RATES OF ADVERTISING GIVEN ON APPLICATION.
GEORGETOWN
The county seat of Clear Creek County, is the great center of silver mining in Colorado. Population, 3,000. Situated in the beautiful valley of Clear Creek, at an elevation of 8,400 feet above sea level. Product of the mines of Clear Creek County in 1874, from carefully compiled statistics, $2,368,781.35. Distances: To Denver 50 miles; to Idaho Springs, 14 miles; to Gray's Peak, (ele. 14,341 ft.), 14 miles; to Middle Park, 22 miles; to Hot Sulphur Springs, 48 miles. (Over.)

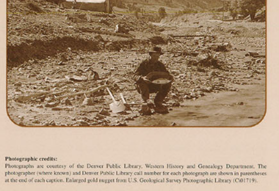
Newspaper masthead of "Weekly Colorado Miner," Georgetown, Colorado. Between 1874 and 1880. (X-11440)



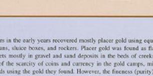
Blackhawk, Colorado, between 1862 and 1869, possibly 1864. The Commission House (lower right), a wholesale and retail grocery store, stands next to a meat market, and farther up the street is a covered wagon and its team of horses in front of a grocery and liquor store. The Blackhawk Presbyterian Church, built in 1863, is at middle right. On the mountain slope in the left background are mineshaft buildings, some of which contain steam engines that provided power for hoisting ore and waste rock and for running heavy stamp mills that pulverized ore. The mineshaft buildings follow the "Gregory vein," which varied from a few inches to several feet thick and contained gold ore. The Gregory vein was discovered by John H. Gregory on May 6, 1859. Photograph of an original photograph by unknown photographer. (H. H. Lake, L-557)

Miners in the early years recovered mostly placer gold using equipment such as gold pans, sluice boxes, and rockers. Placer gold was found as flakes, grains, and nuggets mostly in gravel and sand deposits in the beds of creeks and rivers. Because of the scarcity of coins and currency in the gold camps, miners bought trade goods using the gold they found. However, the fineness (purity) of the gold varied depending upon where it was found and how it was purified. In 1861, in an attempt to fix a value on the miner's gold, the merchants of Central City set the value of placer gold from Clear Creek at $17 an ounce, that from Russell Gulch at $16 an ounce, and poorly processed gold at $12 an ounce (Ubbelohde, 1988).

As early as 1859 and continuing into the early 1860's, "hard-rock" lode deposits of gold were discovered in the Gregory (Central City and Blackhawk area), Georgetown, and Idaho Springs districts. Vertical and inclined shafts and horizontal tunnels were driven hundreds of feet into the solid rock of these deposits using only hand tools and blasting powder. In many mines, steam engines provided power for hoisting ore rock and waste rock out of the mines and for running heavy stamp mills that pulverized the ore to release the gold.



Miner panning for gold in Clear Creek near where George A. Jackson first discovered gold at Idaho Springs on January 7, 1859. His shovel and miner's pick are nearby, and his sluice box is in front of his canvas tent. Between 1890 and 1910. (L.C. McClure, MCC-367)



Index Map Showing Location of the Denver Quadrangle (Blue) and other Published Historic Trail Maps

EXPLANATION

——	**TRAIL OR ROAD**—Dashed where approximately located; queried where inferred. Dates of use shown for some roads. Routes plotted from General Land Office (GLO) land plats, early maps, or aerial photographs. Most trail or road names are from original sources such as land plats. Some shorter trails and trail segments on the GLO land plats were omitted here to avoid cluttering the map excessively. Some trails are terminated or their continuation is queried where their destination was not shown on original source. Locally, parts of the early trails are adjusted to better fit modern courses of streams. Trails date from 1850's to 1880's. Abbreviation used: CO. = Company
○	**TOWN OR OTHER CULTURAL FEATURE**—Approximately located; showing approximate date of founding of a town or establishment of a post office, not generally the date of the first person to arrive; alternate town names and dates are in parentheses. Most newer town names are in brown. Locations of towns shown on previously published maps vary widely, and some locations shown here may be inaccurate. Abbreviation used: P.O. = Post Office
×	**TOPOGRAPHIC FEATURE OR HISTORIC SITE**
—+—	**RAILROAD**—Date shows beginning or duration of operation. Currently operating railroads are shown in brown. Abbreviations of railroads are explained in the pamphlet text. For more details about railroads, see books about railroads listed in the "Sources of Information"

False-front buildings with covered boardwalks along Washington Avenue in Golden, Colorado, in 1872. Castle Rock and South Table Mountain in background. (X-10008)

Photographic credits:
Photographs are courtesy of the Denver Public Library, Western History and Genealogy Department. The photographer (where known) and Denver Public Library call number for each photograph are shown in parentheses at the end of each caption. Enlarged gold nugget from U.S. Geological Survey Photographic Library (C01719).

Any use of trade names in this publication is for descriptive purposes only and does not imply endorsement by the U.S. Geological Survey

For sale by U.S. Geological Survey Information Services
Box 25286, Federal Center, Denver, CO 80225

This map is also available as a PDF file at http://greenwood.cr.usgs.gov

Historical data compiled by *Glenn R. Scott* in 1995-1998

Publication design and digital layout by *Carol Quesenberry*
Original drawings by *Carol Quesenberry*
and *Roger Lawrence*
Editing and digital cartography by *F. Craig Brunstein*
Pamphlet text layout and digital cartography by *Denny Welp*
Trail map digitizing and digital cartography by *James Chappell*

Manuscript approved for publication, March 26, 1998

U.S. Department of the Interior 1849-1999

ISBN 0-607-92448-9
9 780607 924480

Printed on recycled paper