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

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

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

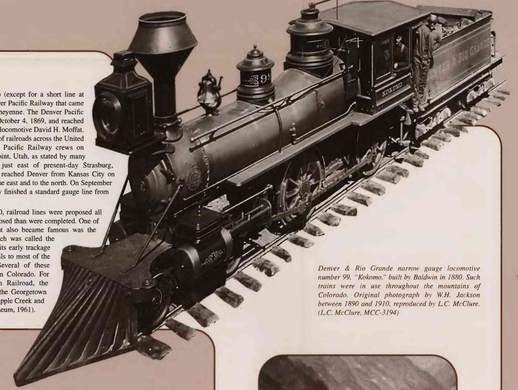
By Glenn R. Scott
1999

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.

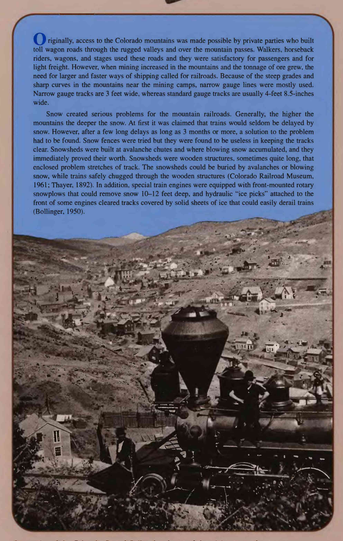
During the twenty years after 1870, railroad lines were proposed all across Colorado; many more were proposed than were completed. One of these that not only was successful but also became famous was the Denver and Rio Grande Railway, which was called the "Baby Railroad" because nearly all of its early 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)

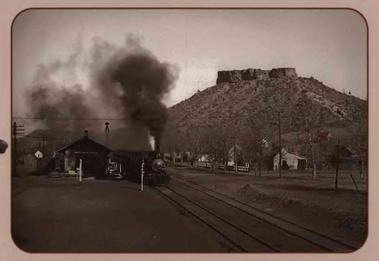
Originally, access to the Colorado mountains was made possible by private parties who built toll wagon roads through the rugged valleys and over the mountain passes. Walkers, horseback riders, wagons, and stages used these roads and they were satisfactory for passengers and for light freight. However, 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)

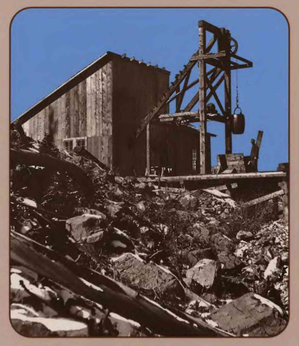
Miner panning for gold west of Denver. He swirls sediment and water in his gold pan, Between 1890 and 1910. (L.C. McClure, MCC-1918)

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 (Dorsey, 1970).



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)

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)

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, in 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 1867, $1,000,000. Distances: to Denver (by wagon road) 40 miles; to Idaho Springs, 16 miles; to Gray's Peak, 14½ miles; (4,34[illegible] ft.), 14 miles; to Middle Park, 39 miles; to Hot Sulphur Springs, 48 miles.

(Over.)

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

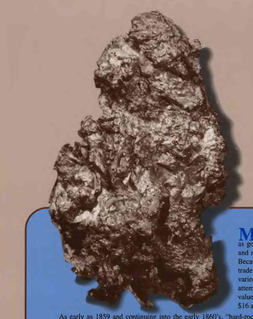
Enlarged Map of the Northwest Quarter of the Denver 1°×2° Quadrangle

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
1 0 1 2 3 4 5 6 7 8 MILES
1 0 1 2 3 4 5 6 7 8 9 10 KILOMETERS

CONTOUR INTERVAL 50 METERS
DATUM IS MEAN SEA LEVEL
NATIONAL GEODETIC VERTICAL DATUM OF 1929

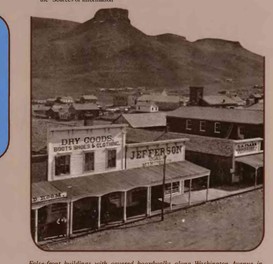


Index Map Showing Location of the Denver Quadrangle (Blue) and other Published Historic Trail Maps

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, 1968).

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 areas), 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)



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

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"

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

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