

A large freight wagon filled with ore on its way from mine to mill. Engraving by I.P.

Weekly," September 1878. (Z-3269)

(ABOVE) Winter scene on Cumbres Pass showing a Denver

and Rio Grande narrow gauge train in January 1949.

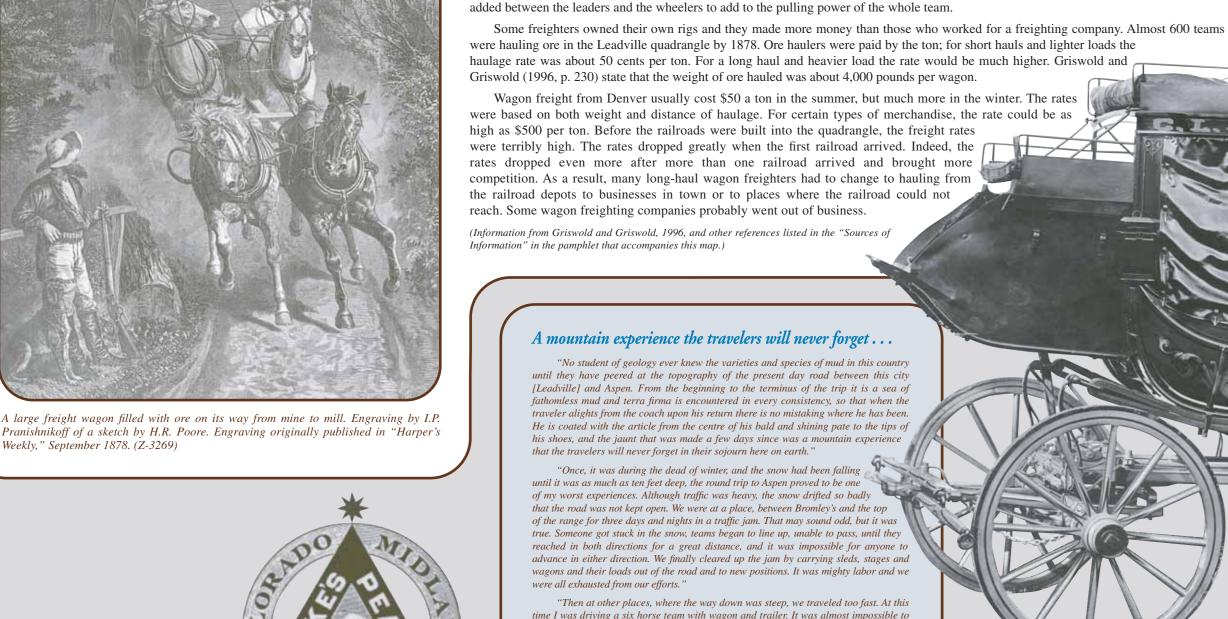
Photograph by R.W. Richardson. Courtesy of the Colorado

(RIGHT) Snowshed and Colorado Midland

Railroad rotary snowplow locomotive and

pusher locomotive on the approach to

Railroad Museum collection.



ne I was driving a six horse team with wagon and trailer. It was almost impossible to old the heavy load. At times I found it necessary to put four roughlocks on the trailer and two on the wagon to keep them under control. Even then one of my wheelers fell and was dragged at least 100 feet before we could get stopped but it didn't kill him." ccounts of the trials of making a trip by stagecoach or

ripple Creek stage," drawn by a team of six orses in the high country of Teller County, vere used throughout the Old West. Between 1890 nd 1910. Photographer L.C. McClure. (MCC-3157) By the Divine right of might mes the mighty $08\ldots$ "Out from the roundhouse slowly steam six of the largest type of engines. Huge, black, puffing monsters which form in a single file with military regularity and precision. They are the escort for Rotary 08, the latest and best triumph of inventive skill for the purpose of clearing way through the barriers of snow. By the Divine right of might comes the mighty 08. Behind it, and nishing the bucking power, are the six engines... Within a square, steel framework, which reaches from a few inches of the ground to a height of about 12 feet, are set the great The monster enters the snow bank, the blades are set going with terrific velocity, and with six locomotives panting, snorting, puffing

and straining in the rear, a way is forced. The snow is broken down,

cut by the blades and sent far out beyond the track in a great stream of

Part of a reporter's account of a trip out of Leadville on a Colorado Midland

owfall and drifting snow during that winter were deep enough to completely bury

ailroad rotary snowplow pushed by six locomotives during the hard winter of 1899

trains, and many railroad lines in the mountains were impassable for several month

Published in the March 4, 1899, issue of the Leadville Herald-Democrat.)

Hagerman Pass. Photographer W.H. Jackson, between 1880 and 1890. (WHJ-1613).

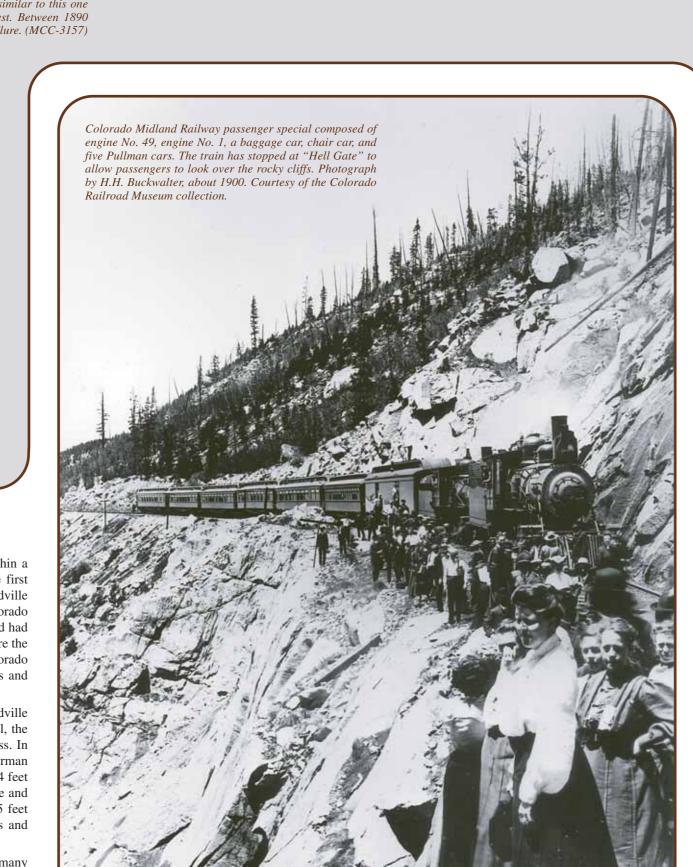
Denver Leadville and Gunnison Railway engine number 199 emerges from the Alpine tunnel, which is about 40 miles southeast of Aspen. The locomotive has a balloon stack and

a cowcatcher. The 1,805-foot-long tunnel was completed in 1881. Photographer unknown,

ailroads were requested by the people of Leadville for a long time before they finally got one. Then, within a matter of a few years, they obtained three railroads. On July 22, 1880, the Denver and Rio Grande was the first railroad to reach Leadville. The Denver South Park and Pacific Railroad (narrow gauge) was approaching Leadville by 1884, and the final part of the track was laid in the dark of the night in February of that year. The Colorado Aidland Railway (standard gauge) did not run lines into Leadville until August 31, 1887. The Colorado Midland had he most difficult time running their rails into the Leadville quadrangle. One problem was that the routes that were the asiest places to lay rails had already been taken by the other railroads. The second problem was that the Colorado Midland was a standard gauge train, so it needed more space to run the tracks. Curves were broader, bridges and unnels had to be larger, and the total expense was considerably greater. The most complicated part of the Colorado Midland Railway line was the section westward from Leadville

cross the Continental Divide to Aspen. To cross the high mountains of the Continental Divide, a major tunnel, the 2,061-foot-long Hagerman Tunnel at 11,528 feet altitude, was constructed in 1887 just south of Hagerman Pass. In addition, a very long curved wood trestle, the most elaborate and spectacular in Colorado, called the Hagerman restle, was built along the eastern approach to Hagerman Pass and Hagerman Tunnel; it was 1,084 feet long, 84 feet igh, and 200 degrees in curvature. Snowfall in 1899 was so great that the Hagerman Tunnel could not operate and vas shut down. It was replaced in October 1899 by the newly acquired Busk-Ivanhoe Tunnel, which was 575 feet lower (at 10,953 feet). It saved 575 feet of climbing by the trains, as well as 13 snowsheds and 12 bridges and restles. The Busk-Ivanhoe Tunnel was called the Carlton Tunnel after 1921.

Immediately after the railroads became available for passenger and freight service into Leadville, prices on many sales items dropped, some items formerly unavailable became easy to obtain, travel became convenient and reasonable, and the cost of shipping freight decreased markedly. (Information from Ormes, 1963, and other references listed in the "Sources of Information" in the pamphlet that accompanies this map.)



Routines and Perils of Stage Travel

n the Leadville area, the first strong placer gold mining activity was in California Gulch from 1859

to about 1864, but the really big boom of mining didn't happen until the late 1870's. Many stage lines had been in business for nearly 20 years before Leadville really felt the need for additional

transportation services. Several existing stage lines were in business in Leadville, including the

Spotswood and McClelland Stage Company, the Wall and Witter Stage Company, and the Barlow and

Sanderson Line. At the peak of the rush in 1878, twelve fully loaded coaches arrived each day in

Leadville (Dorset, 1970, p. 260-261). In 1880, daily stage lines ran from Leadville to Kokomo,

Breckenridge, Georgetown, Buena Vista, Fairplay, Alma, Red Cliff, Aspen City, Twin Lakes, and

various smaller mining camps. The biggest problem for stage travel was that a topographic barrier was formed by the Colorado Front Range. Most of the stage lines were in business east of the

mountain range, so there were only two practical solutions; either go over the mountains or go around

them. If the stage lines went around the high mountains they would need to travel many extra miles.

If they went over the mountains, they faced hazardous travel all year and terrible weather during the

winters. Ultimately, the stage lines took both courses. During winter, stages often went southwest

across Kenosha Pass, South Park, and Trout Creek Pass, then traveled northward on a shelf road

along the east side of the Arkansas River to Leadville. In the summer, stages often went southwest

through South Park to Fairplay and then westward over Weston Pass, on an old Indian road called the

Denver and South Park Stage Line. They had two stages running each way daily. During their contract

(ABOVE) A brand new Concord stagecoach photographed at the factory of Abbot, Downing, and Company in

Concord, New Hampshire. Most of the Concord coaches that were built saw service on the dusty trails

throughout the plains and mountains in the western United States. The new stagecoach came with adjustable leather side curtains, leather boot attached to the back of the stage, top deck seat, hand-operated brakes, lamps, and fancy hand-painted ornamental sides. In this view, the shiny leather side curtains are rolled down over the front and back side windows. The "strong box," which contained valuables, was kept under the driver's seat. Passenger's luggage and mail sacks were stowed in the leather boot at the back of the stage. Inside, nine passengers shared three leather-covered seats, and for short distances as many as 10-12 people could ride perched on top of the stage. The coach was beautiful to look at—two hand-rubbed coats of paint were applied,

followed by two coats of spar varnish. Photographer unknown. Between 1880 and 1900. (X-21797)

The Spotswood and McClelland Stage Company had been running a stage line since 1865 on their

that started in 1877 at the start of the big mining boom in

xtended to Leadville in 1878. So heavy was the

volume of business that the Canon City-Leadville

service ran three times daily. A total of six

major coach lines linked Summit County to

the outside world in the early 1880's (Gilliland, 1987). The best companies

used Concord coaches and charged

passengers 12-15 cents per mile. The worst used rough open wagons and charged much lower rates.

> Information from Dorset, 1970, and illiland, 1987, and other references listed

n the "Sources of Information" in the

mphlet that accompanies this map.)

coaches, and 50 sets of harness. Barlow and

Ute Trail, a difficult road, improved in some places by placing small logs across it (a corduroy road).

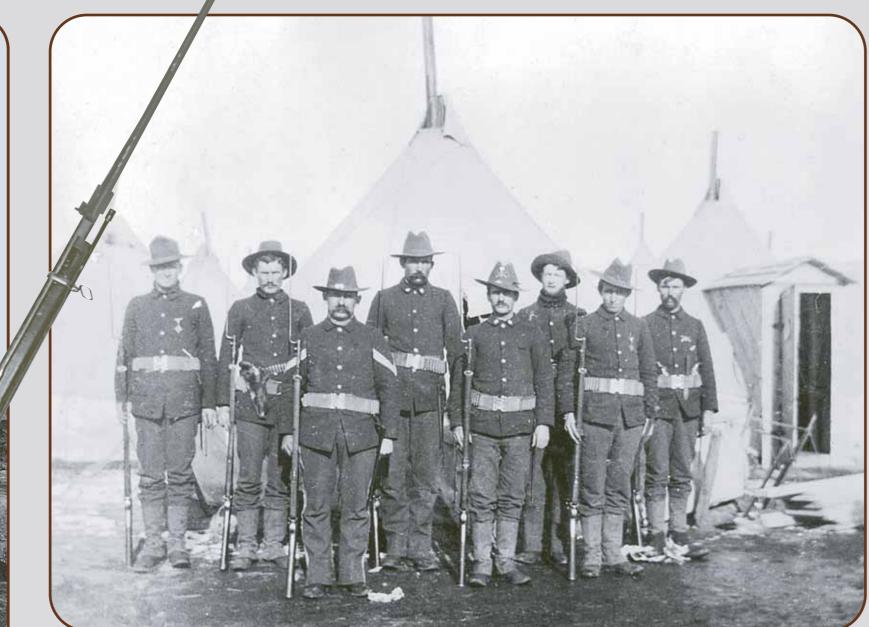


between 1900 and 1920. (Z-52)

n June 1896, the miners in the Leadville mines were receiving wages of only \$2.50-3.00 per day. The miners held that they could not support their families or buy food on only \$2.50 per day, and that even \$3.00 was too meager to be a living wage. Many of the miners then joined the Cloud City Miners Union. A union request to the mine owners for a uniform \$3.00 wage was refused because the owners said that they were already losing money on the mines in Leadville. During a union meeting on June 19, 1896, by an almost unanimous vote the miners chose to stop the work of all employees receiving less than \$3.00 per day. Negotiations became impossible and by June 23 almost 2,300 miners were unemployed. The second general strike started on the 26th of June, when 968 miners went on strike. Pumpmen, firemen, and engineers were the only people working in some mines. However, despite the strike, the mine owners decided to reopen the mines. First to open were the mines paying less than \$3 a day, followed by those paying \$3. The miners objected to the reopening of the mines. To counteract

this, the mine owners called in non-union strikebreakers. Trouble erupted, so the mine owners asked the Colorado Governor to intervene. The Colorado State militia was alerted to the tension, and on September 21, 1896, soldiers of the militia from the Denver area began to arrive by train in Leadville. There was no place available to lodge the soldiers, so they began to set up a tent camp on a baseball field on the north side of Leadville, then called Camp McIntire. The soldiers in the militia had come to town without adequate clothing or tents, and it took quite a while to get them clothing and tents to survive in snowy Leadville. On September 25, 1896, 65 miners arrived from Missouri to become strike breakers. They were marched toward the Emmet and Coronado mines surrounded by the militia, who were protectors of the mines and the miners. The arrival of the Missouri miners made the operation of some mines possible and partly negated the effect of the strike on the mine owners. The strike continued until the first week of March 1897. Then a meeting of the union was held, and 900 miners voted to end it. The militia campaign had lasted 172 days. The strike cost the Colorado taxpayers a total of \$194,010. The flooding of the mines due to inoperation during the strike was so bad that some mines took two years to reopen, and other mines never reopened. The striking miners never did receive a uniform wage of \$3.00 a day. The cost of the strike in lives, property, and human suffering could never be measured.





(ABOVE) Colorado National Guard soldiers (the Colorado State militia) in front of canvas tents in Leadville during the mining labor strike of 1896-1897. The soldiers have U.S. Springfield rifles with bayonets. Photographer unknown, 1896 or 1897. (X-60308) (RIFLE TO LEFT) U.S. Springfield rifle with bayonet attached. The Springfield was a tried and true, large-bore (.45 caliber), single-shot rifle that was very accurate. It was the standard issue

(LEFT) Guarding the Emmett mine near Leadville during the mining labor dispute of 1896-1897. The soldier is carrying a U.S. Springfield rifle with bayonet. Photographer O'Keefe and Stockdorf, 1896 or 1897. (X-60249)

courtesy of Dixie Gun Works, Inc., Union City, Tennessee.

rifle for U.S. soldiers at this time. Soldiers referred to the rifle as the "Trapdoor" or "Trapdoor Springfield," because of the way the breech block flipped up similar to a trapdoor. Photograph



varies from 14° easterly for the center of the west edge of the map to 13° easterly for the center of the east edge WITH SUPPLEMENTARY CONTOUR INTERVALS AT 100 FEET North American Vertical Datum of 1929

> crowded. Exorbitant prices were charged for sleeping places. Many people died of exposure and starvation. Crime became very common, lawmen were unable to cope with the problems. The occupied area grew and many small communities were started, including Oro City, Poverty Flats

> > Leadville's Winter Crystal Carnival Ice Palace of 1896—

1896 Winter Crystal Carnival in Colorado. A 19-foot-tall ice sculpture of a

maiden in a gown and crown stands at the entrance, and her right arm points toward the mines east of town. She stands on a 12-foot-high pedestal and holds a

scroll that has "\$200,000,000" in gold lettering, which represents mining revenue

about 320 by 450 feet, and it was constructed of ice blocks about 20 by 30 inches

that were cut from local lakes and

rivers. More than 200 craftsmen

worked for two months to build

the structure. The entrance

featured an ice archway with

turnstiles flanked by 90-foot-high

octagonal turrets with imitation battlements. The interior of the

structure contained a skating

ink, ballrooms, restaurant,

exhibits. By mid-June 1896, the Ice Palace had melted away. Photographer unknown, 1896. (X-

6350 and X-251)

ception rooms, and museum

produced through 1894. The Norman-style medieval ice castle covered an area

Exterior views of the main entrance of Leadville's Ice Palace, built for the

the work of more than 200 craftsman...

(Information from Eberhart, 1959, and Dorset, 1970, and other references listed in the "Sources of Information" in the pamphlet that accompanies this map.)

fell rapidly and eventually many of the silver mines closed.

EXPLANATION

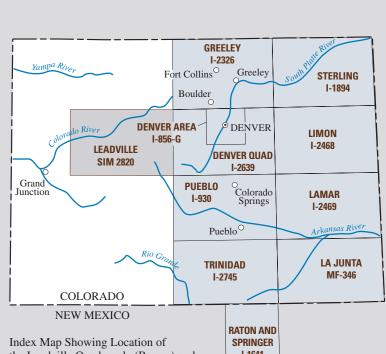
TRAIL OR ROAD—Names and dates of use shown for some trails and roads Routes plotted from General Land Office (GLO) land plats, early maps, or aerial photographs. Most trail or road names are from original sources, such as land plats. To prevent clutter on the map, some trails and roads are not shown in solid black. [At the scale of this map, some of the old trails and roads, if shown, would appear to closely follow or coincide with later modern roads, which are shown in brown.] See the accompanying pamphlet for descriptions of roads. In addition, 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 destinations were not shown on original sources. Locally, parts of the early trails are adjusted to better fit modern courses of streams. Most

TOWN OR OTHER CULTURAL FEATURE—Approximately located; alternate town names and dates are in parentheses. Most newer town name are shown in brown. Locations of towns shown on previously published maps vary widely, and some locations shown here may be inaccurate

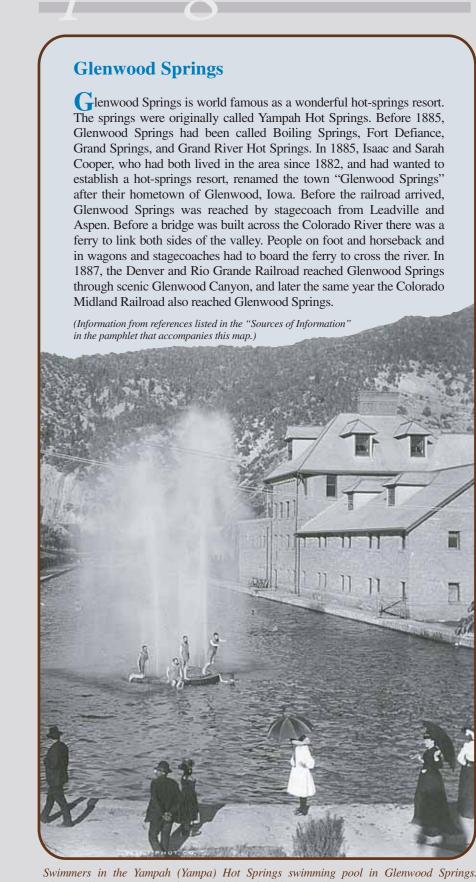
trails date from 1840's to early 1900's

Half Moon TOPOGRAPHIC FEATURE

++++ RAILROAD—Some railroads show beginning or duration of operation Currently operating railroads are shown in brown. Abbreviations of railroad names, full names, and years of operation are shown in the accompanying pamphlet. For more details about railroads, see books about railroads listed in the "Sources of Information" in the pamphlet. Abbreviations used: R.R. = Railroad, RY. = Railway, Sta. = Station, Jct. = Junction, CO. = Company, n.g. = narrow gauge



the Leadville Quadrangle (Brown) and I-1641 other Published Historic Trail Maps (Blue)

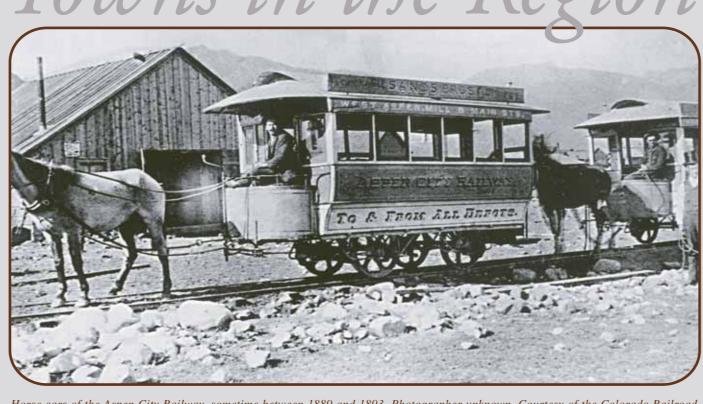


Photographer W.H. Jackson, between 1882 and 1900. (WHJ-1074)

Transverse Mercator projection

10,000-meter Universal Transverse Mercator grid, zone 13

100,000-foot grid based on Colorado coordinate system, central and north zones

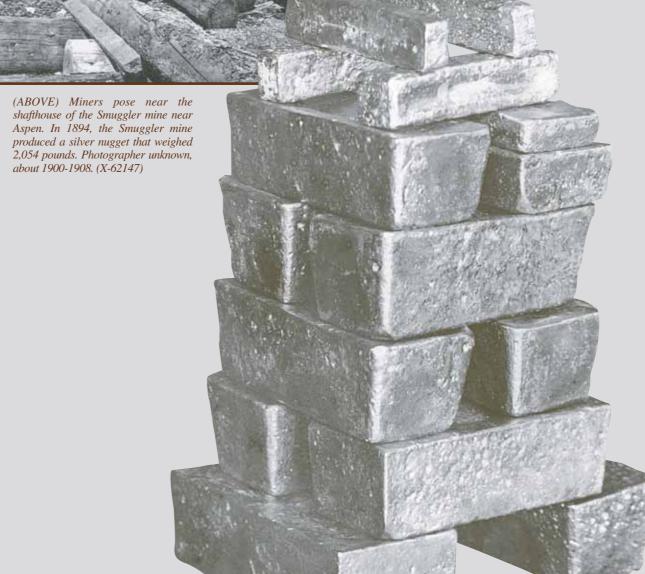


Horse cars of the Aspen City Railway, sometime between 1889 and 1893. Photographer unknown. Courtesy of the Colorado Railroad **Aspen Street Railway**

n September 1889, the Aspen city council granted a charter to the Aspen City Railway to build a municipal streetcar line. "The first horse car arrived in early December 1889, and three weeks later a second car arrived and service began. The completed system eventually totaled somewhat over 2 miles, stretching from the fairgrounds, through neighborhoods and downtown, to the railroad stations. The horse cars started their route at the Roaring Fork River and near the Colorado Midland Railroad tracks, then went west on Durant Avenue to Original Street, then north one block, then west four blocks on Cooper Avenue to Mill Street, then three blocks north to Main Street, then west to 3rd Street and about eight blocks to

*River Valley near Breckenridge. Photographer unknown. (X-60130) Maroon Avenue, then west to 8th Street, and ended their tour near the

Fairgrounds. It was not uncommon for a burgeoning community to point with pride to the fact that it had public transport. Aspen was no different. Fletcher (1995) believes that the horse-car system was abandoned during the time of the 1893 depression and the closing of most of the Aspen mines. (Information from Fletcher, 1995, and other references listed in the "Sources of Information" in the pamphlet that accompanies this map.) (BELOW) A miner, his son, and dog pose on a horse-drawn wagon near the office of the Mollie Gibson shaft in Aspen with a silver nugget from the Smuggler mine broken into three pieces to get it out of the mine shaft. Photographer unknown, (ABOVE) Miners pose near the shafthouse of the Smuggler mine near Aspen. In 1894, the Smuggler mine produced a silver nugget that weighed 2,054 pounds. Photographer unknown, about 1900-1908. (X-62147)



he first prospectors in the Blue River valley built a fort (Fort Meribeh or Fort Mary B.) as protection from the Ute Indians; the area

of the fort later became a part of Breckenridge. The first stagecoach entered the town in 1860. Breckenridge was one of the richest gold mining areas in Colorado. In the early years it was a gold placer mining camp. By 1863, miners had worked most of the shallow gravel

deposits in the valleys, removing the placer gold using sluice boxes, rockers, and gold pans. Eventually, hard-rock lode mines were located

and worked. For example, rich gold veins were discovered on Farncomb Hill. In 1907, giant dredges started operating in most of the

valleys, earning as much as \$20,000 worth of gold per week. The dredges could work large areas of gravel that were too deep or

unprofitable to work by other methods. After the dredging was stopped, the dredges were salvaged for the World War II scrap iron drive. In

north to Grand Lake was not officially entered as a part of the U.S.A. The omission was discovered in 1936 by a Breckenridge women's

old-mining dredge on Box Creek, near Leadville, 1920. The huge dredge floated along on the water as the rotating buckets excavated hundreds of tons of grave

each hour. It is said that while the dredge was in operation, the noise was deafening, due to the tumbling gravel and boulders and the squeal of the moving steel

and iron machinery. Such dredges could produce almost 50 pounds of gold each 3-4 days. Gold dredges similar to this one were also used throughout the Blue

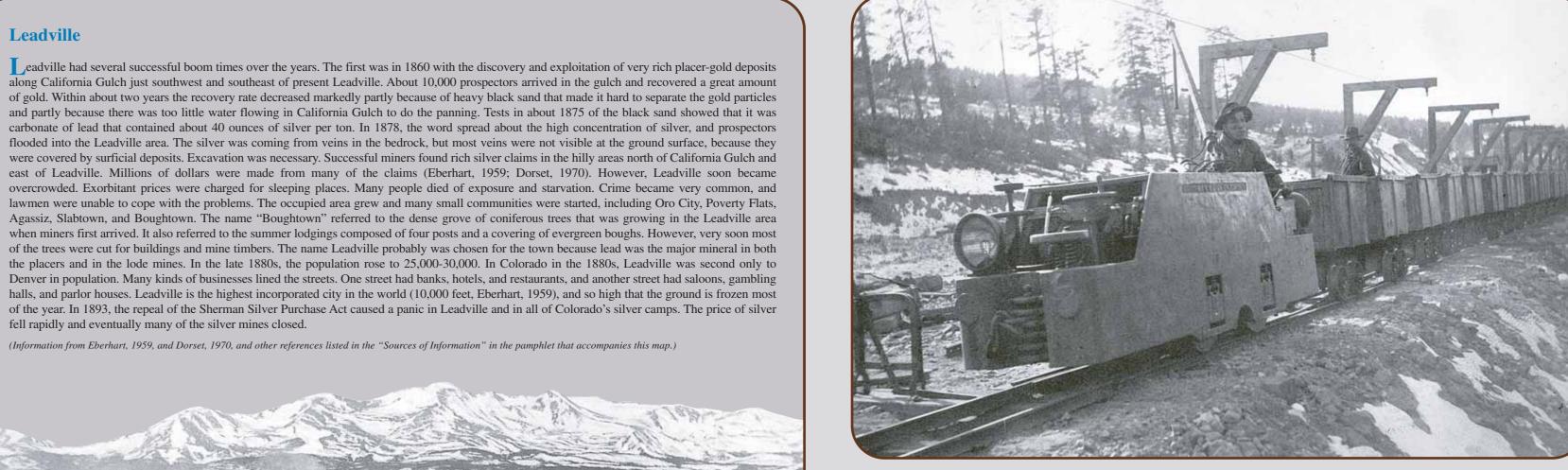
the early years of the United States during the purchase of land in the western United States, a 1,300-square-mile area from Breckenridge

club member and was corrected by Colorado Governor Ed Johnson.

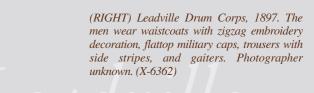
View west across Leadville with 14,421-foot Mount Massive and the Continental Divide in the background. Photographer H.H. Buckwalter, between 1900 and 1905. (X-6317)

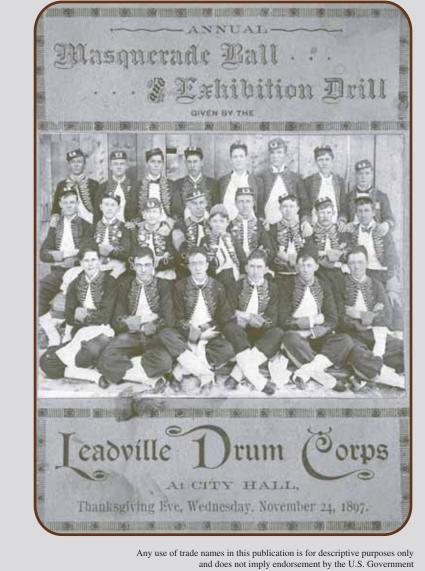
Businesses on Harrison Avenue in Leadville in 1882. Photographer unknown. (X-379)

(LEFT) Gold bars smelted from ore from mines at Leadville and Breckenridge. Value of the gold is about \$120,000 at the prevailing gold prices between 1880 and 1900. Photographer O'Keefe and Stockdorf. (X-60040)



Men ride on an electric tram as it makes its way out of the Yak Tunnel near Leadville. The 4-mile-long tunnel was completed in 1903, and it provided access to the deep lower levels of the Ibex mine group. The tunnel was used to haul gold ore out of the Ibex mine, and it also served to drain groundwater out of that mine and other mines in the region. The site is now part of a "Superfund" hazardous waste site. Photographer unknown, between 1910 and 1930. (X-60599)





For sale by U.S. Geological Survey Information Services Box 25286, Federal Center, Denver, CO 8022 This map is also available as a PDF file at http://pubs.usgs.gov Denver Public Library, Western History and Genealogy Department The photographer (where known) and Denver Public Library call number for each photograph are shown at the end of each caption All historical photographs, sketches, and engravings are clearly referenced so that viewers can readily review the originals in the source institutions A few of the illustrations have enhancements that are meant to complement the overall publication design

We are careful not to alter the context of these wonderful visions of an era but rather, to use them to evoke a sense of time and place Historical data compiled by *Glenn R. Scott* in 2001–2003 Publication design and digital layout by *Carol Quesenberry* Original drawings by *Carol Quesenberry* Digital cartography by *Springfield and Springfield*

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