

NATURE DETECTIVES

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Treasure in the Mountains: The Story of Mining in Boulder County

Did you know that Boulder County was famous across the country for its rich veins of gold, silver, and other precious metals? We'll get to that story, but first....

What are gold and silver? What do people use them for?

Gold and silver are two of the most precious metals in the world. That means they are hard to find in nature and can be very expensive. They are beautiful, resist rusting, and are easy to work with to make into coins, jewelry, and all kinds of other shiny things. In fact, pure gold is too soft to be worked with for a long time, so it is often mixed with other metals to make it easier to handle! Both gold and silver have been used for thousands of years by ancient and modern civilizations as money.

We still use gold to this day! Both gold and silver carry (or conduct) electricity and heat very well. That makes them important for making electronics such as computer parts.

Gold has also been used in satellites, on space suit visors, and even on the windows of tall office buildings to help control temperature. Dentists have used gold in tooth fillings for a long time.

Silver is found in nature both by itself and mixed with many other minerals. Gold, on the other hand, does not combine easily with other minerals. Instead, it is often found inside rocks as tiny grains or shiny flakes.

Gold, silver, and other metals concentrated and encased in bedrock are called veins. Bedrock is the hard, solid layer of rock beneath all the soil, dirt, and sand on Earth.



Gold is found all over the world. In the Boulder County mountains, miners would pan for gold by swirling rocks and gravel in a stream and sifting out the shiny pieces. Later, bigger machines did this work on a larger scale. Eventually, miners traced the gold upstream until they discovered it locked in the bedrock.



Did you know Boulder County is where one end of the Colorado Mineral Belt begins? This stretch of land runs about 250 miles south to the San Juan Mountains near Silverton. It is 10 to 35 miles wide at different points.

How Was This Belt Created?

About 65 million years ago, the Rocky Mountains were pushed up for the second time. As the mountains rose, rock layers tilted and cracked. Hot, mineral-rich fluids flowed into the cracks and crevices and hardened into what we now call veins of precious metals in the Colorado Mineral Belt.

Over millions of years, mountain building, along with wind, water, and ice erosion, brought these

veins closer to the surface. The area we now call Boulder County holds gold, silver, tungsten, lead, zinc, tellurium, and more, all mined during its short but busy history.

How did miners get these precious minerals out of the rocks?

They used a method called hard rock mining, which took place only in the mountains. This kind of mining was Boulder County's main industry in the late 1800s. The gold and other minerals were encased in the bedrock and veins, so miners had to break apart the rock and process it into a useful form.

Another type of mining, called soft rock mining, was used to dig out coal on the plains in eastern Boulder County.

In 1859, gold was discovered in what is now the town of Gold Hill, along today's Gold Run Road. This was the first precious metal find in Boulder County. After that, more discoveries of gold, silver, and other metals kept drawing people to the area.

Towns such as Nederland, Eldora, Gold Hill, Ward, and Allenspark as well as smaller mountain communities like Salina, Ferncliff, Raymond, and Riverside, all got their start during the mining boom of the mid to late 1800s in the western United States.

Life in a mining camp or community was not for the faint of heart. There were few to no services, and it could take a full day to travel down to the tiny new settlement that would become the City of Boulder. Mine collapses, fires, explosions, and accidents were common.

At first, groups of men came to work the mines. Boardinghouses provided them a place to stay. Often the beds in these boardinghouses were never empty. As one miner woke to begin work, another was finishing his shift and heading to the bed the first miner had just left.

Later, women and families joined the miners. They helped build the towns and communities that still exist in the mountains today.

What about kids in those days? In 1885, labor laws banned children younger than 12 from working in the mines. Later, the age was raised to 14. Still, children were expected to help support their families. If a father worked the late shift, it was often a child's job to carry his lunch down into the mine in the dark.

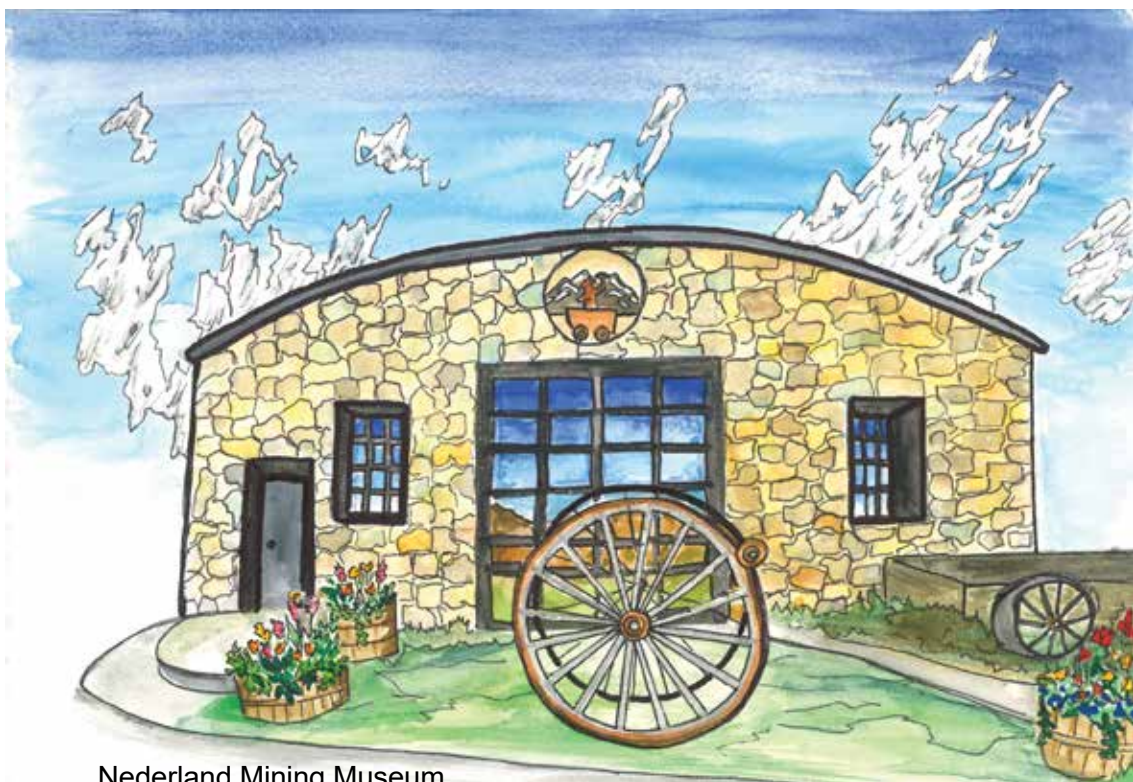
Hard rock mining left us with problems that still affect Boulder County today. When the precious metals were exposed to air and water, it caused acid mine drainage. This polluted streams and creeks, turning the water yellow or orange. The water was unsafe for fish, other animals, plants, and people to drink.

Over the years, Boulder County has worked to clean up these problems. Newer mining techniques and stronger rules have also helped make more recent mining safer for the environment.

But another danger remains: Some people think exploring old mines is fun. In fact, it can be very dangerous. Falling rocks and other hazards have hurt many people. That's why the state warns everyone: stay away from old mine openings!

The Nederland Mining Museum is one of the best places in Boulder County to learn about mining and its history, both the rocks and the people. Visitors can explore what life was like for miners and even pull the handle on a dynamite machine. You can also ring a bell that once told the hoist operator to raise or lower a bucket in a mine. The bucket worked like an elevator, carrying people, tools, and rocks to and from the surface.

There's even a special area for kids to play and try on pioneer or mining clothes.



Nederland Mining Museum

Nederland Mining Museum Coordinator, Donal Maloney, who trains staff and volunteers and oversees museum operations, has worked in a gold mine during his career. He is a living gold mine of information and stories for visitors, both tourists and locals.

We asked him, "What is the hardest thing for museum visitors to wrap their minds around at the Mining Museum?" He responded, "Probably the difficulty of living and working in a rough, pioneer type environment and the difficulties and hard work of mining underground."

We followed up with, "What are some things you wish that people understood about mining and ore and rocks?" He told us, "Probably the difficulty, both physically and economically, of finding worthwhile deposits of minerals to mine. And the hit or miss nature of 'making it rich' and the luck involved!"

Mining brought thousands of people to Boulder County and "put it on the map." Today visitors come to see the golden aspens fluttering in the fall wind, the golden sun rays slanting from the sky in late afternoon, to hike, and to ski the silvery, new-powder snow ... And to explore the Mining Museum in Nederland!

Activity

Go to the Nederland Mining Museum June 1 through Oct. 31. Friday, Saturday, and Sundays from 11 a.m.-5 p.m. Admission is free. They also host special events such as Hard Rock Mining Tours, Small Engine Demonstration Days, and Gold Panning. The Assay Office Museum in Four Mile Canyon hosts an open house once a month. More information can be found at boco.org/Discover. Have fun!!

NEDERLAND MINING MUSEUM SCAVENGER HUNT



Find all the different parts of the mining museum!



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| <input type="checkbox"/> Tungsten rock | <input type="checkbox"/> Mine shaft model | <input type="checkbox"/> Miner's hard hat |
| <input type="checkbox"/> Signal bell | <input type="checkbox"/> Mining claim map | <input type="checkbox"/> Dress up area |
| <input type="checkbox"/> Assay's scale | <input type="checkbox"/> Dynamite detonator | <input type="checkbox"/> Gold panning display |