Kennecott Mines

Kennecott Mines National Historic Landmark Wrangell-St. Elias National Park and Preserve Alaska



KENNECOTT MINES CO.

KENNECOTT, ALASKA. THE STORY **OF COPPER**

Historic requisition form, 1911

Copper projectile point recovered from a perennial now patch in the Wrangell Mountains

Industry in the Wilderness

deposits in North America, led to the

development of the Kennecott Mines.

Deep in the heart of Wrangell-St. Elias National Park and Preserve's rugged landscape lies a story that begins with the Ahtna people, residents of the area since time immemorial. They crafted tools and other items from pure copper nuggets found near the Kennicott Valley, trading them across vast distances, and eventually attracting prospectors and explorers searching for mineral resources. One expedition was shown a pure copper source by a local Ahtna leader in 1885, but pure copper was never found in commercially profitable quantities. However, prospectors Jack Smith and Clarence Warner found exceptionally high-grade ore (up to 77.9% copper) high in the Wrangell Mountains in 1900. This treasure, one of the last rich copper-ore

Around the time of their fortuitous discovery, Smith and Warner met a young, adventurous mining engineer, Stephen Birch. "I've got a mountain of copper up there," Smith told Birch. "There's so much of the stuff sticking out of the ground that it looks like a green sheep pasture in Ireland when the sun is shining at its best." With America's Industrial Revolution in full swing, the timing was

perfect. The rare find catalyzed a story of westward expansion, technological modernization, and the rise of a copper empire.

Chalcocite

Types of copper ore



A Day in the Life

remote location.

lasted six to twelve months.

towards the same goal: a better life.

What was it like to live here? By most accounts, the company-

These comforts were pivotal in helping retain workers in this

By comparison, on the stark, craggy mountainsides, miles above the mill camp, life at the mining camps was less comfortable. Although management provided miners some amenities, such as hot meals and occasional movies, the cold, isolation, and brutal labor led to high turnover. The average mill or mine worker only

At the height of operations, more than 600 people from over 20 countries lived and worked in the mill and mine camps. Factors such as nationality, gender, and age determined which jobs and social opportunities were available to each person. Some came to advance their careers, while many others worked to fund their next prospecting adventure. For some immigrants, the experience was a springboard to a life in the United States. Regardless of a worker's rank in the company's clearly defined hierarchy, everyone toiled

owned mill camp was a good place to work and live. Management and some key personnel were allowed to bring their families. As a

result, recreational activities, such as baseball, ice skating, tennis, dances, and movies, provided entertainment for Kennecott staff.

Left: Stephen Birch, 1909 P277-019-145 ALASKA STATE LIBR VICKERSHAM STATE HISTORIC SITE HOTO COLLECTION

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Right: Prospectors at the future site of Kennecott, 1902 ALDEZ MUSEUM & HISTORICAL



Passenger traincar in Kennecott, about 1925

Boom! Then Bust

Immediately recognizing the claims' potential, Birch worked to secure funding, helping to form the Alaska Syndicate with wealthy financiers the Guggenheims and J.P. Morgan in 1906. The project launched in earnest and the camp, concentration mill, and mines were built despite the challenges of the imposing, isolated landscape.

However, without a way to transport the copper ore to market, it was worthless. To solve this transportation problem, the Copper River and Northwestern Railway was completed in 1911-a massive engineering feat built in just four years. The 196-mile railway traversed a glacier and multiple rivers, connecting Kennecott to the coastal town of Cordova. From there, ships ferried the ore for processing to a smelter in Tacoma, Washington. The Syndicate owned the mine, railway, and steamships outright, and the Guggenheims owned the smelter, creating a monopoly in Alaska that would spur many legal, press, and political challenges with nationwide repercussions. In 1915, the Syndicate reorganized as the Kennecott Copper Corporation, making Birch the president of an influential international mining company.

Kennecott Mines with Bonanza Ridge





Interior of the concentration mill building, where copper ore was processed, about 1968 AER. HAER AK.20-MCAR.1--16

Miners sorting ore, date unknown

Profits soared at the outset of World War I, which fueled copper demand. To maximize the mill's efficiency, the company utilized and adapted some of the most advanced concentrating technologies of the time, raising copper-ore recovery from the limestone host rock to a remarkable 96%. During the mine's operation, 4.6 million tons of copper ore were extracted, yielding a 100-million-dollar profit (roughly \$2 billion today). Production peaked in 1925, marking the start of the mine's slow decline as profitable ore bodies dried up, forcing the mines to close in 1938.

At the time of closing their Alaska location, Kennecott Copper Corporation was already a global force in their industry, with many other mining investments in the United States and internationally. When the company left, maintenance of the railway and site dissolved, leaving Kennecott to deteriorate in an isolated, remote wilderness. The mill town and mining camps evolved through periods of small-scale mining, tourism, and private developmenteach era leaving an indelible mark on the area. The site and its rich history are now protected and celebrated as Kennecott Mines National Historic Landmark, established in 1986.







Top Left: Workers enjoyed skiing in the winter, 1937

Top Right: Master mechanic James McGavock in the Power Plant, date unknown CANDY WAUGAMAN COLLECT

Bottom: Kennecott Jazz Orchestra at the Mechanics Ball, about 1920

Yes! That's a Glacier

Why is it so dirty?

It's not mine tailings but a layer of silt, sand, gravel, and rock atop the shifting mass of ice. This debris, known as glacial till, is plucked from further up the valley by smaller glaciers flowing down the mountains, merging to form the Kennicott Glacier. As the glacier melts, the debris accumulates on the ice.

In the early 1900s, when Kennecott Mine was at its peak, the glacier towered over the mill camp—higher in some places than the mill building, the tallest building in the camp. The Kennicott Glacier, like most Alaskan glaciers, is shrinking. This is primarily because rising temperatures increase summer melt rates, a process exacerbated in recent decades by human-caused climate change. What do you think the glacier and valley will look like in another 100 years?





"I sat in that bucket with my arms hanging out and my feet hanging over from my knees. The cable went over a big gully that was a thousand feet deep... a wind came along and rocked the bucket from side to side. That was some ride to the mine."

- William Collins, 1923

Miner's hat with carbide lamp **NPS / RACHEL HECKERMAN, MUSEUM COLLECTION** WRST 24480



Miner riding the Jumbo tramway, date unknown UAF-2006-86-6, ARCHIVES, UNIVERSITY OF ALASKA FA Above: Miners at Jumbo Mine bunkhouse, between 1910 and 1913



Cleaning out an ore chute into the underground tram, around 1937 ETHEL LECOUNT COLL

tt Glacier and



Visit the upper footbridge over National Creek to compare how this same view looks today

ennicott Glacier. 2021



Please leave artifacts in place

Welcome to Kennecott

Root Glacier, Erie Mine, B

Mine, and Jumbo Min 0.75 mi/1.2km from V

A Living Legacy Stepping into Kennecott is like stepping back in time, offering a window into the past. Today, Kennecott is the best-preserved example of early 20th century copper mining technology in the country, located within America's largest national park, Wrangell-St. Elias National Park and Preserve. Local residents and others across Alaska became passionately involved in rescuing Kennecott from the ravages of time. Thanks to their efforts, some buildings were stabilized and in 1986 this site was designated as Kennecott Mines National Historic Landmark. Restoration crews continue to bring life to relics of a time of industrial growth, expanded markets, global migration, and innovation. This place is also a living community and the gateway to an immense wilderness.

Private Land When Wrangell-St. Elias National Park and Preserve was established in 1980, it encompassed large tracts of non-federally owned lands. In 1998, the National Park Service acquired many of the significant buildings and lands of the Kennecott Mines National Historic Landmark. These NPS-managed properties are interspersed with privately owned lots, homes, and businesses within a residential subdivision. Roads in the subdivision are reserved for the use of lot owners and their guests. Please be courteous and respectful of subdivision residents and private property.

Safety Hazards exist within the Kennecott Mines National Historic Landmark site, ng but not limited to explosives, chemicals, mine openings, unstable buildings and tailings. To reduce your contact with hazardous materials and areas, stay on established roads and trails; obey closure and caution signs; avoid skin contact with the ground, artifacts, buildings, and tailings; wash hands and harvested berries before eating; and clean shoes and pets' paws after visiting.

Opportunities for rescue and evacuation in the backcountry are slim; response time can be slow due to hazardous terrain and remoteness. Adequate preparation, experience, knowledge of extreme wilderness travel, and survival skills are essential. Always carry extra rations and gear for emergencies or weather-related delays.

Before you head into the backcountry, fill out a backcountry itinerary at a visitor center or ranger station. Tell a friend or family member about your route and expected return date and time.

This is bear country! Get a bear safety brochure at a visitor center or ranger station. Make noise. Stay with a group. Bear resistant food containers, available at visitor centers, are required for all backcountry camping. We strongly suggest that you carry bear spray. Do not approach moose, which injure more people than bears.

To Bonanza Mine and Jumbo Mine Trails

For firearms regulations check the park website.

Planning Your Visit Stop first at the Kennecott Visitor Center to make the most of your experience. Here you will find park rangers available to share information on the historic structures, ranger programs, concessionaire offerings, hiking trails, camping, backcountry trip planning, and bear resistant food containers.

Things to Do Explore historic buildings paired with modern-day exhibits, feel your way around a large 3-D relief model, and watch the Kennecott Mill film. Enjoy a leisurely stroll through the National Historic Landmark, visit the Kennecott Cemetery, or hike to the Root Glacier. Challenge yourself by hiking several thousand feet up to the Jumbo or Bonanza mine remnants.

Approx. Length: 4.5 miles / 7.2 km one way

Difficulty: Easy / Moderate

elevation change near Kennecott

Root Glacier Trail

Difficulty: Easy / Moderate Approx. Length: 2.5 miles / 4 km one way Elevation Gain: Relatively level with a steep descent to access glacier

This popular hike takes you to the terminus of the Root Glacier and offers views of the surrounding mountains. Cross streams cautiously and wear crampons or microspikes to hike on the glacier.

Erie Mine Trail

Difficulty: Easy / Moderate

NPS / JAMIE HART

Approx. Length: 4 miles / 6.4 km one way Elevation Gain: Relatively level with moderate elevation change

This trail follows the lateral moraine at the edge of the Root Glacier. This trail does NOT take you to the Erie Mine - it ends 1,500 feet (457 m) below the mine at the end of the aerial tram. There are great views of the Stairway Icefall.



NPS / ELVIE UNDERWOOD

The former wagon road paralells the vehicle road from Kennecott to McCarthy through a boreal forest. The historic Kennecott Cemetery is located .75 miles (1.2 km) from the Visitor Center. Please stay on the trail as it passes through private property and watch for local vehicles and bicycles.



Private Property and Subdivision

The NPS-managed properties are intersperse with privately owned lots, homes, and businesses within a residential subdivision. Roads in the subdivision are reserved for the use of lot owners and their guests. Please be courteous and respectful of subdivision residents and private property.



NPS Building

- Private Building
- A Public Entry & Exhibits
- A No Public Entry

A Dairy Barn

Walking Trail

- **B** Recreation Hall
- C Schoolhouse
- D West Bunkhouse
- E Refrigeration Plant
- F General Store, Warehous & Historic Post Office
- G Train Depot
- **H** National Creek Bunkhouse
- I East Bunkhouse
- J Hospital
- K General Manager's Office

Theater

& Wheelchair Accessible

8 Bookstore

fif Vault Toilet

+ First Aid

- L Concentration Mill (tours available by concessionaire)
- M Leaching Plant (tours available by
- concessionaire) N North Sacking Shed &
- Flotation O Machine Shop
- P Transformer House
- **Q** Power Plant
- **R** Cottage
- * Buildings not labeled are private homes or businesses. Food and shopping available at some locations.

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占 🛨 🚺 🖬 /isitor Center / Blackburn School

Hiking Trail lengths are approximate and subject to change due to the dynamic landscape of the park. All trail distances start from the Kennecott Visitor Center. Please respect residents by staying on trails as they pass through private property. Dispose of human waste and trash according to Leave No Trace principles by packing it out.

Take nothing from historic sites but inspiration for your soul, questions for your mind, and photographs for your memories.

Accessibility We strive to make our facilities, services, and programs accessible to all. As the site continues to develop, more services and facilities will become available. For information go to a visitor center, ask a ranger, call, or check our website.

PO Box 439 Mile 106.8 Richardson Hwy. Copper Center, AK 99573 907-822-5234

Emergencies call 24-hour NPS Dispatch 907-683-9555 or 911

Wrangell-St. Elias National Park and Preserve is one of over 400 parks in the National Park Service System. To learn more, visit www.nps.gov



NPS / MAYA HEUBNER

Jumbo Mine Trail

Difficulty: Strenuous Approx. 5 miles / 8 km one way Elevation Gain: 3,400 ft / 1036 m gain

This steep trail climbs Bonanza Ridge to the abandoned Jumbo Mine and bunkhouse, offering amazing views above the treeline. The final 0.5 miles (.8 km) to the mine requires route-finding across loose rock. Use extreme caution in the unstabilized former industrial site and leave it as you found it. Stay on the trail as it passes through private property.



Bonanza Mine Trail **Difficulty: Strenuous**

Approx. Length: 4.5 miles / 7.2 km one way Elevation Gain: 3,800 ft / 1158 m gain

This steep trail ascends Bonanza Ridge to the abandoned Bonanza Mine. There are stunning views above the treeline. Please use extreme caution in the unstabilized former industrial site and leave it as you found it. Stay on the trail as it passes through private property.

and McCarthy

Old Wagon Road to Kennecott Cemetery To McCarthy

More Information Wrangell-St. Elias National Park and Preserve www.nps.gov/wrst