
Quartz Creek Gold Mining, 1933-1935: The Story of Salve Thomassen

By Linda Holding Schure

During the Great Depression gold placering became a means of survival and independence for many people living in the western gold mining states, including Montana. But one Montana miner and his gold mining operation differed from most of the amateurs reduced to gold panning by the mass unemployment of the day. What set Salve Thomassen and his claim in Quartz Creek apart was the sophistication of his operation.

Gold was deposited on steep hillsides above Quartz Creek during the last ice age, when an ice dam was created in the Panhandle of Idaho. As behind all dams, a reservoir of water was created. This one, the ancient Glacial Lake

Missoula, spread its watery shores into the far reaches of Quartz Creek and the surrounding mountains on the Montana-Idaho border. Geologists believe that Lake Missoula drained and filled more than twenty times, whenever the ice dam melted or reformed. All of this moving water accounts for the gold—originally deposited in igneous veins and lodes—in the placers of Quartz Creek.

Thomassen joined his fellow immigrant Scandinavians working in the mining and logging camps of Saltese and Superior in western Montana in the 1920s. Thomassen eventually began working, and ultimately acquired, a seven-thousand-foot mining claim owned by his uncle on



Salve Thomassen's cabin, 2001. (Courtesy of Linda Holding Schure.)



Thomassen's cabins, 1933. (Courtesy of Arnold G. Helding.)

Quartz Creek, west of present-day Superior, Montana, high in the mountains near the Idaho border.

Immigrant Scandinavians were common in the lumber and mining camps of Montana and Idaho. In 1933 Thomassen hired Arnold Holding of Missoula, Montana, the eighteen-year-old son of another immigrant Swede. (Holding's recollections are the basis for this article.) Thomassen also took care of his crippled brother, Peder, who had injured his leg working in the woods as a logger. These two young men were Salve Thomassen's employees for three summers during the Great Depression.

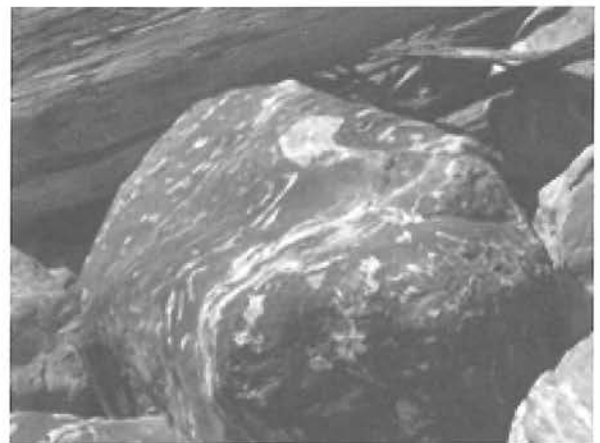
The men worked six days a week and on Sunday Holding walked seven miles to Rivolet—now abandoned—to get the mail. He came out of the mountains through Whiskey Gulch at a big train trestle. From his vantage point he could look down on the freight trains as they traveled over the trestle. The boxcars' doors would be open and the cars filled with all sorts of people riding the rails. With five million unemployed in 1930 and thirteen million in 1932, more and more people hit the road and headed for the hills looking for ways to survive. Thomassen made a home on his claim mainly to thwart claim jumpers, as the woods filled with prospectors and people living off the land.

The Thomassen brothers and Holding began work at the claim around eight in the morning, eating lunch at the cabin at noon. They lived on canned goods and homemade bread that had flour creases in the loaves because Salve Thomassen wouldn't knead it long enough. They ate salt pork and lots of dried codfish that came in one-pound boxes. Salve would soak the cod in cold water all night, but it had no flavor. Breakfast invariably was salt pork and sourdough hot cakes that were always raw in the center because Salve didn't take enough time with them, either. As for clothing, Thomassen kept a big stack of bib overalls and cotton blankets in the corner of the cabin. When those he was us-

ing became too dirty or worn, he threw them out and took new ones from the stack. Salve Thomassen wasn't interested in the domestic arts; he was a mining engineer at heart.

Thomassen mined without engines and expensive equipment; he used the natural energy of flowing water and that of the two young men he had hired. Arnold Holding and Ped Thomassen excavated rocks and dirt to a depth of sixty feet or more down to bedrock, while trying to guess where the creek had run thousands of years before. Salve Thomassen cut dynamite with a knife, pushed a fuse into the cut, and packed it with axle grease. When they dynamited the rocks they would put the greasy charge into the hole in the stream bank or in a huge rock and light the fuse. One of them would yell, "fire!"—in part to protect anyone using the nearby trail—and run to a shelter built with three or four logs overhead for protection.

Thomassen built an ingenious homemade water-powered hoisting system, dubbed the gin pole. He designed this large crane to work with a water wheel that had a high gear ratio. The two younger men would dynamite the large rocks, fasten chains around the pieces, and pile them up out of the way with the aid of the pole crane. Arnold would scramble up on the pile and un-



Landscape rock, 2001. Many of these rocks were moved by hand by Arnold Holding and Ped Thomassen. (Courtesy of Linda Holding Schure.)



The hand-built pole hoist, dubbed the gin pole, used to move large rocks, 1933. (Courtesy of Arnold G. Holding.)

hook the chains and the process would start all over again. The men also hand-drilled holes into the dirt bank and dynamited the bank. Then they removed the dirt with picks and shovels.

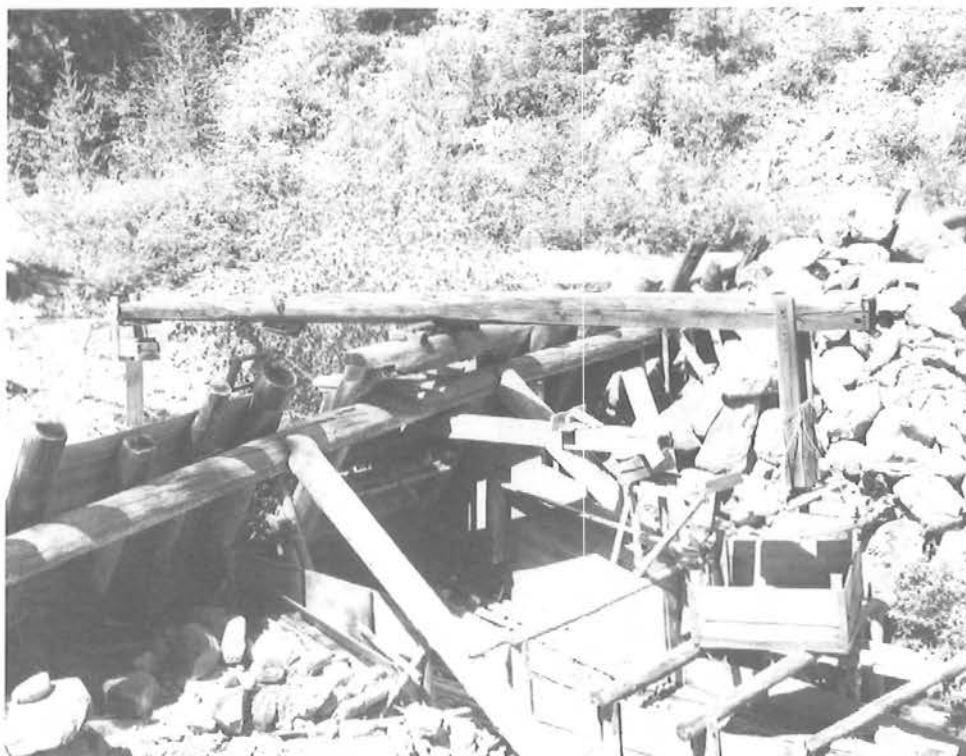
Up the creek from his claim, Salve Thomassen constructed a dam, complete with a clever wooden floodgate. Attached to the gate was a long pole with a box hanging from the opposite end. The reservoir behind the dam filled quickly during the high water season. Water then overflowed the dam into a trough that ran into the large wooden box with a small hole in the bottom. In-rushing water filled the box faster than it could drain, and the weight of the water in the filled box lifted the gate on the opposite end of the pole, letting a torrent of water escape from the reservoir. That, of course, cut off

the flow of water into the box, which, as it emptied, returned to its original position, closing the reservoir gate and beginning the cycle again. During spring runoff, the reservoir would fill in approximately ten minutes. As spring turned into summer, stream flow diminished and the reservoir took longer to fill.

Once released, the water from the reservoir flushed down the creek and washed boulders and dirt into a wooden flume at the end of the hole that Arnold and Peder had been excavating. They would hear the water coming and jump out onto a platform built beside the flume. They helped move large rocks through the flume using a pick, the points of which had been heated and bent downward to resemble a rake. The first two sections of the flume contained small lodge pole pine logs laid in the bottom as riffles

Part of the remains of the old gin pole, 2001. (Courtesy of Linda Holding Schure.)





Front of Thomassen's dam, 1933. The weight of the water filling the box would open the gate, releasing the reservoir water. (Courtesy of Arnold G. Holding.)

The old dam over Quartz Creek, 2001. (Courtesy of Linda Holding Schure.)





Wooden flumes, 1933. The first two sections of the flumes were lined with small lodgepole pine logs that served as riffles. (Courtesy of Arnold G. Holding.)

to catch the gold as the water flowed through the system. After the water rushing from the reservoir had spent its energy, the men would begin their search for gold. They knelt in the hole on hands and knees with little tools, flaked the loose rocks, took up any remaining loose dirt, and put it into the flume. They then took up the riffles in the flume to expose any gold lying in the bottom, scouring out the last flakes with a toothbrush.

The second flume box would have less gold in it, but the contents of this section were reserved as a special cache for a little girl whose family lived in a cabin in the meadow below. She was twelve years old and Thomassen wanted her to buy some clothes with the gold. The little girl's was one of two families that Thomassen let mine on his property. Her father was supposed to give Thomassen fifteen percent of his findings, but he never paid up; he couldn't afford to.

The busiest season occurred during high water, when the men used the force of the river's action to flush the dirt and gold they'd dug and blasted into the flume. As summer advanced and the river's flow diminished, they were reduced to feeding the flume by shovel. Thomassen believed that the gold they recovered came from Louisiana Gulch, higher up, but that it wasn't smoothed until it reached the bottom of Quartz Creek.

In 1934, an engineer from Morrison Knudsen, who had visited Thomassen's operation a couple times and scouted around, bought Thomassen out. The engineer brought in diesel engines and all sorts of modern equipment, including a hydraulic line to remove dirt down to the bedrock. It wasn't long before this engineer went broke—

The hydraulic line that washed dirt from the mountainsides, 1933. "It would kill you if you stood in front of it," said Holding. (Courtesy of Arnold G. Holding.)





All that is left of the immense hydraulic power system, 2001. (Courtesy of Linda Holding Schure.)

too much investment for too little return. When the engineer pulled out, he left the hydraulic system behind. In 1935, the Thomassen brothers and Holding returned to work the site, gratefully using the hydraulic nozzle. "It sure made our work [that] year a lot easier," recalled Holding.

In the wintertime, Salve Thomassen worked alone in a drift he had burrowed into the gravel and dirt of a hillside. He would haul the dirt he extracted to his cabin and pan it. To do so, he diverted water from a nearby spring to his cabin using notched lodgepole pine logs. When he wasn't mining, Thomassen read newspapers and magazines and did his own blacksmithing. He made many of his own tools, sharpened his picks and axes, and made linked chains. He assembled the big boom for the gin pole by hand and cleverly used water power. His only monetary expenses were for food, clothing, and dynamite.

During the summers Thomassen stashed his gold in the ashes of his heating stove for safekeeping, but by the time he passed away in 1940, he had money in two banks, including eleven thousand dollars in the Scandinavian bank in Missoula. His only real vice was a pipe, which he smoked most nights sitting on the edge of his bed. When he often vis-

ited Arnold Holding in Missoula after Holding had quit working for him, Thomassen would sit in Holding's living room and smoke his pipe during their hours of conversation. He died of throat cancer at the Mayo Clinic in Rochester, Minnesota. His tombstone survives in an old graveyard outside Superior, Montana.

Salve Thomassen passed his savings on to his brother Ped. That money dissipated in a few years in the bars and whorehouses around Superior. One winter day Ped Thomassen went up to the cabin, lay down on the bed with some dynamite under his head, and blew himself up. Today Salve Thomassen's mining claim displays its history in broken bits of log and metal, a few

The entrance to Salve Thomassen's mountainside drift, 1933. (Courtesy of Arnold G. Holding.)





*Salve Thomassen's blacksmithing cabin, 2001.
(Courtesy of Linda Holding Schure.)*

crumbling cabins, and piles of rocks. Someday, the rocks will be all that remain, but for now the U.S. Forest Service has preserved sections of Thomassen's mining site for posterity.

The ground is overgrown with bushes and drought-resistant ponderosa pine. The steep slopes that were the bed of Lake Missoula over

twelve thousand years ago, blasted free of dirt in the 1930s, are now covered in broken rock and patches of arnica, aster, and arrow-leaved balsamroot. The stream that flowed high and fast past Thomassen's cabin is now a diminished creek. The afternoon sunshine overlays the quiet solitude of an abandoned place. 🏠



Relic of the blacksmith's forge, 2001. Small chunks of charcoal can be seen in the forge pan. (Courtesy of Linda Holding Schure.)



*Remains of the footbridge over Quartz Creek, 2001 (left). Downstream of the old dam, 2001 (right).
(Courtesy of Linda Holding Schure.)*

Sources:

Memoirs of Arnold G. Holding, Arlee, Montana.
Transcript of oral interview held by Linda Holding Schure.

Chuck Mead, president of the Mineral County
Historical Society, Superior, Montana.

Bureau of Land Management, Environmental
Home Page, www.mt.blm.gov.

Paul Alexander Gusmorino, III, website: "Main
Cause of the Great Depression," 13 May 1996,
www.gusmorino.com.

The Nature Center at Fort Missoula, Glacial
Lake Missoula, Missoula, Montana,
www.glaciallakemissoula.org.