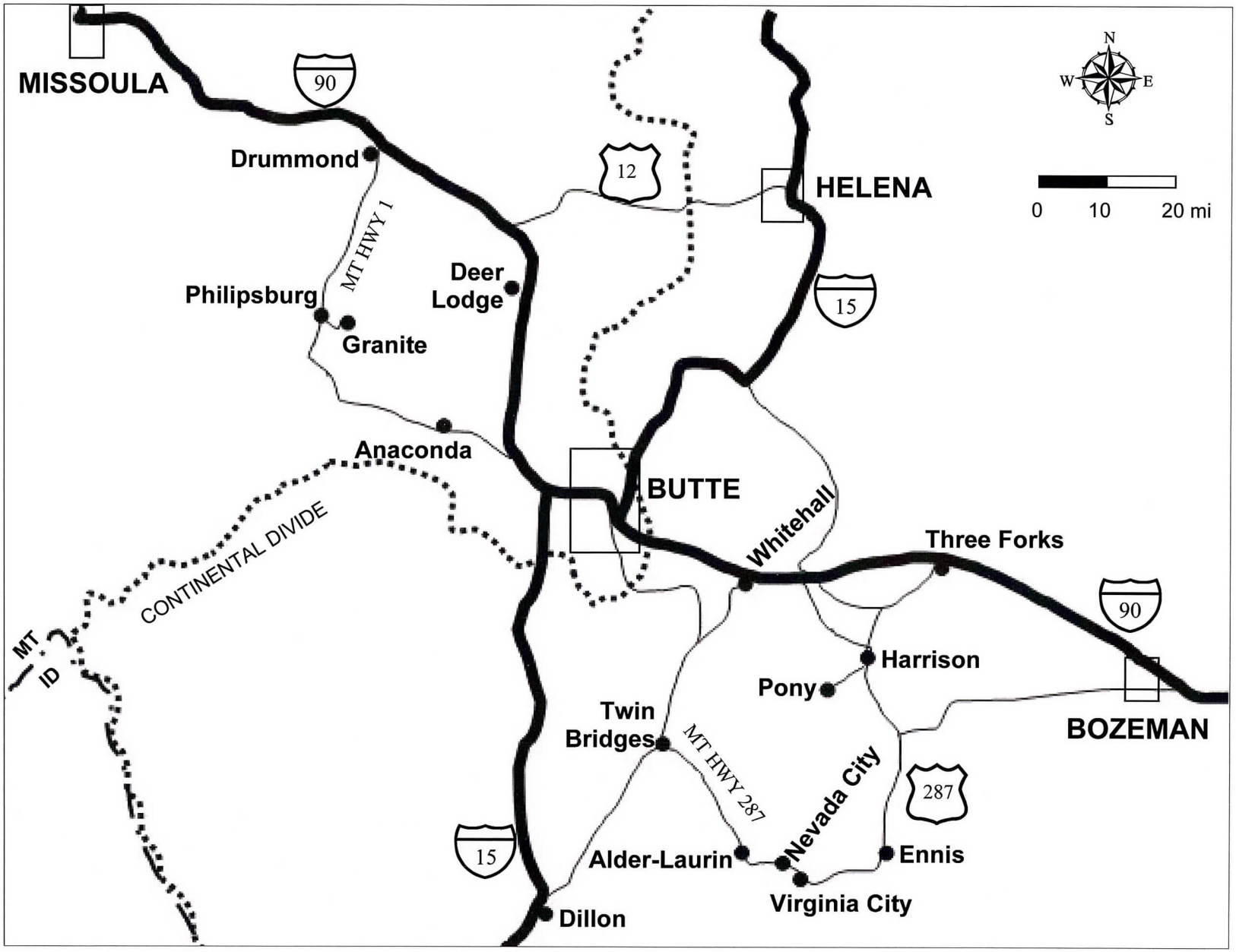
VAF Vernacular Architecture Forum • 2009







BUTTE AND SOUTHWEST MONTANA
JUNE 10–13


MISSOULA
90
Drummond
12
HELENA
MT HWY 1
Philipsburg
Deer Lodge
Granite
15
Anaconda
BUTTE
Whitehall
Three Forks
CONTINENTAL DIVIDE
MT
ID
90
Harrison
Pony
Twin Bridges
MT HWY 287
Nevada City
287
BOZEMAN
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Alder-Laurin
Ennis
Virginia City
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VERNACULAR ARCHITECTURE FORUM • 2009

BUTTE AND SOUTHWEST MONTANA

FIELD GUIDE FOR THE 30TH ANNUAL MEETING
BUTTE, MONTANA • JUNE 10-13, 2009

EDITED BY RICHARD I. GIBSON

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VERNACULAR LANDSCAPES UNDER THE BIG SKY

Welcome to Montana!

Montana is the country's the fourth largest state with 147,138 square miles and is home to fewer than 1,000,000 residents. Butte, population 33,000, is our conference headquarters. The city is part of the largest National Historic Landmark in the United States, containing approximately 4,000 contributing properties—and more than 6,000 in the combined Butte-Anaconda National Historic Landmark District. At an elevation of nearly 6,000 feet, the city is rich with evident history of the contentious phenomena of hard rock and open pit mining, immigration, divided social classes, ethnic diversity, industrial capitalism, corporate power, railroad building, electrification, labor unions, prostitution, political power brokers, market decline, environmental liability, and many others which illustrate the fertile ground of the west. Butte experienced explosive growth to an estimated 100,000 by 1917, due to the shrewd exploitation of what was then the largest known deposit of copper ore in the world. It was a boisterous and wealthy cosmopolitan city, often compared with San Francisco or New York in its time.

The operational transition to open pit mining in the mid-20th century, followed by changes in mine ownership, closures, environmental regulation, the declining copper market, and other factors, contributed to severe declines in the demand for mining labor, with Butte's population scattering far afield to find work. Investment in Butte altogether evaporated, and businesses closed down. By another twist of fate, because the uptown area had developed directly from its origins as a mining camp high on the hillside on top of the underground mines, uptown is almost a mile away from Interstates 15 and 90. The heart of the city, therefore, and many of its urban neighborhoods, were not attractive ground for strip development or renewal. While this was unfortunate for Butte's prospects for economic development, it had the advantage of leaving the historic uptown district completely intact through benign neglect, as an architectural testament to its past. Butte's historic architecture, neighborhoods, and landscapes offer a bright future for the community. The January/February 2009 cover of *Montana* Magazine reads: *Bringing Back Butte: New Economy, Old Architecture Give the Mining City New Luster*. The nationally distributed monthly magazine devoted 15 pages to Butte.

Within just a 100-mile radius of Butte lies a wide range of historic sites illustrating a variety of experiences of settlement in the Rocky Mountain west. Some of these are spectacular in their natural context and unchanged original construction. It would be difficult to drive from Butte in any direction, and not be taken by the astounding power of the natural context over the sparse settlement pattern, and the vividness of contrast between cultural artifact and the elements. It is remarkably easy to envision earlier stages of settlement in these vast landscapes.

On behalf of the 28-member conference planning committee, we are delighted to bring you this conference and guidebook. Enjoy Montana while you're here and come back often!

—Maire O'Neill and Rolene Schliesman, Conference Co-Chairs

ACKNOWLEDGEMENTS

Our sincere appreciation goes to the following sponsors who have provided cash, donated services, or substantial discounts to make this conference a reality.

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Grant-Kohrs Ranch National Historic Site
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Montana Bureau of Mines and Geology
CTA Architects and Engineers

We also thank our keynote speaker Edwin Dobb, as well as our transportation, catering, lodging, venue, book, reception, and conference vendors, and MSU Conference Services for their excellent service and sharing their best historic resources and hospitality with all of us.

Our deepest appreciation goes to the 2009 VAF Conference Planning Committee, Executive Committee, property owners, essay authors, editors, reviewers, and tour, event, and fieldwork volunteers who donated generously of their time, resources, expertise, and good humor to bring you the 2009 VAF Conference and Guidebook.

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VAF Papers and Website Committees, especially Arijit Sen and Eugenia Woo

VAF Past Conference Committee Chairs, especially Daves Rossell and Karana Hattersley-Drayton

Editor's Preface

This guide is truly a team effort. Authors, photographers, and field workers have converged on Butte and southwest Montana for more than two years, with the result that most of the line drawings and floor plans in this volume were done specifically for the VAF conference. Workers from Utah, Delaware, Colorado, and Oregon, in addition to those from Bozeman, Helena, Missoula, Anaconda, Butte, and elsewhere in Montana have created a new body of work, a starting point for more detailed studies. The contributions of the writers, photographers, field workers, and drafters are acknowledged within the text, but in addition I thank them for their cooperativeness and flexibility. As the book came together, painstaking technical and editorial review by Lesley M. Gilmore and Rolene Schliesman helped significantly, making this a far better product than it would otherwise have been. C. Riley Augé and Jim Jarvis, coordinators for the tours, also reviewed the tour sections of the guidebook. Thanks also to Damon Murdo for Photoshop guidance, and to Denny Dutton for help, guidance, contributions, and encouragement throughout the 2½ years of conference planning.

I'm a geologist who never thought I could possibly be passionate about anything but geology. Butte, its history, its architecture, and its people have made what I thought impossible happen. I hope—passionately—that your brief sojourn here will give you a taste of what makes southwest Montana and Butte unique, and that it will make you want to return.

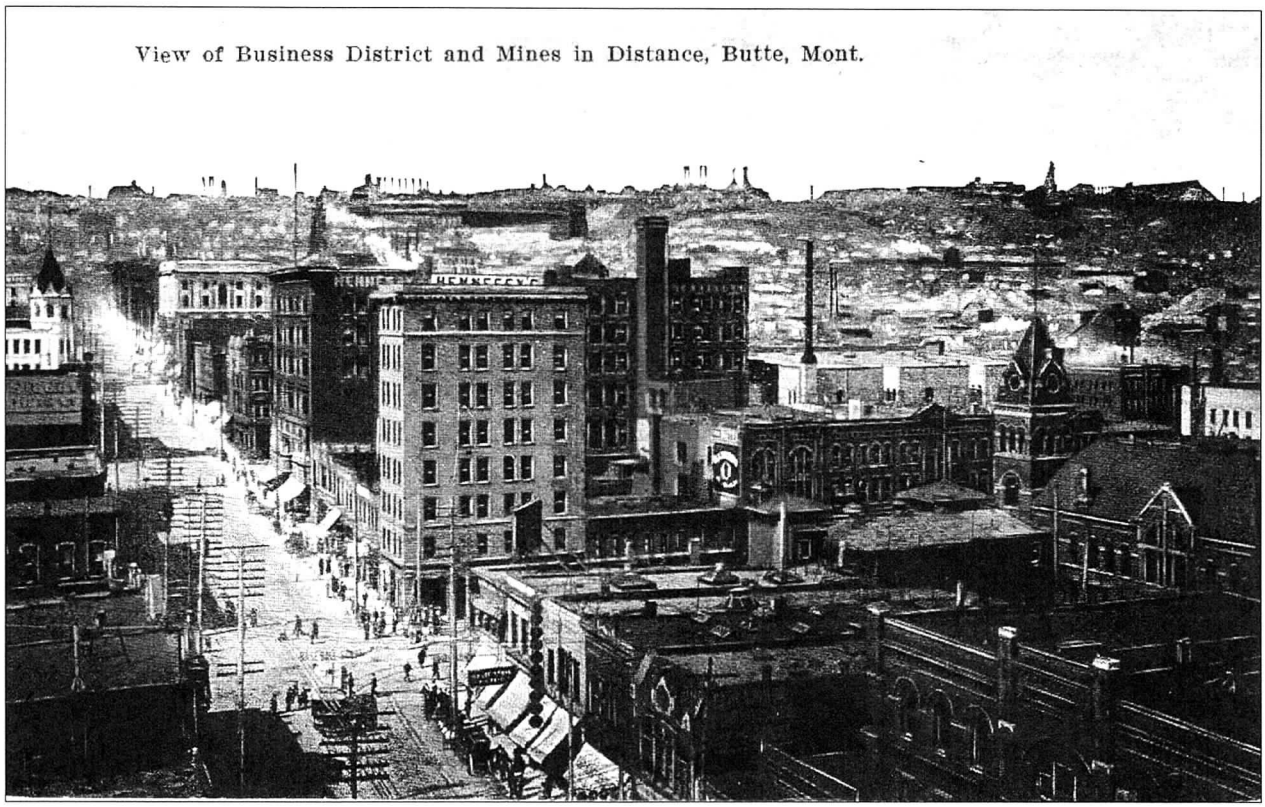
—Richard Gibson, Editor

Butte and Southwest Montana

Essays



A typical porch-fronted walk-up apartment building in Butte. Drawing by Mark Reavis.



Post card view of Butte, c. 1905. The intersection of Main Street and Broadway is at lower left, with the Hirbour Tower on the northeast corner.

The nature–built landscape: Geological underpinnings of Butte

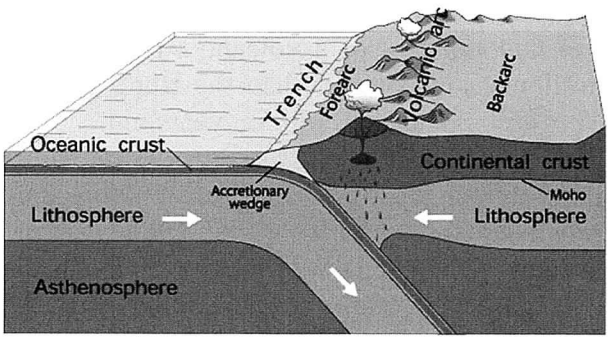
Richard I. Gibson
Consulting Geologist, Butte, Montana, and
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Seventy-five or eighty million years ago, volcanoes dotted the western edge of North America, which was located here in western Montana and in Idaho. The plains to the east, stretching into the Dakotas and south to Colorado, were mud flats laced with sandy rivers. Dinosaurs grazed, preyed, and scavenged over this wide, lush panorama during a geologic time called the Cretaceous Period.

Butte's metallic future was evolving deep beneath the surface, in the roots of the volcanoes. A gigantic lava lamp, now petrified, lay beneath what is now Butte. Huge blobs of molten rock many miles in diameter were rising buoyantly from a depth of about 100 km (60 miles) as a result of earth's recycling process—subduction.

Subduction results from density differences in the earth's crust. Oceanic crust is denser than continental crust, so when the two meet—driven together by huge, slow movements called convection currents—oceanic crust usually dives under continental crust. The place where this happens is a busy location, tectonically—earthquakes, volcanoes, oceanic trenches, and mountain ranges all form at such zones of collision.

The subducting slab of oceanic crust plunges to greater and greater depths. Eventually things get hot enough for water to be driven off, rising into the overlying rock where it reduces the melting point and generates the blobs of magma (molten rock) that rise toward the surface as if they were part of that giant lava lamp.



Subduction produces mountain ranges and volcanoes at continental margins. Southwest Montana was something like this about 78 million years ago. Image from U.S. Geological Survey.

Near the surface, where temperatures and pressures are lower, molten magma begins to solidify and even crack as it cools. The cracks form conduits for the last subterranean hot water and bits of molten rock, which often carry the good stuff—copper, silver, gold and the wealth of other minerals that made Butte so rich. When that last material solidifies, it becomes ore veins sought by prospectors and miners.

Insulated by overlying rock, the granite in the blobs of magma can take hundreds of thousands of years to completely solidify. If it does reach the surface, it may erupt through a volcano—and such volcanoes were present in this area during the Cretaceous Period. Their remnants are the Elkhorn Mountains about forty miles northeast of Butte.

Blobs of magma—as many as 16 of them—coalesced to form a huge mass of granite called the Boulder Batholith, which extends from the Highland Mountains south of Butte almost to Helena, making the batholith (a word that means "deep rock") seventy miles long and forty miles wide. The Boulder Batholith is small as batholiths go—California's Sierra Nevada Batholith is close to 500 miles long.

Big Butte, the town's namesake, is also the resistant remnant of a volcano's core, but 25 million years younger than the Butte granite. That still makes it 50 million years old.

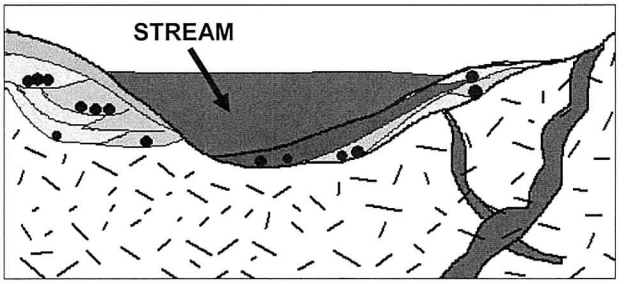
Forcing magmas into the surrounding rock produced some uplift of the whole region. Southwest Montana was also uplifted by the thousand-mile-long collision western North America was undergoing. Uplift meant that most of this area was above sea level after about 70 million years ago, and that in turn meant that erosion was taking place.

Millions of years of erosion removed the overlying rock, as well as any volcanoes (if present) associated with the deep Butte granite. Erosion reached down into the granite, but not too far—the presence of Big Butte's rocks, which cooled relatively close to the former surface of the earth, indicates this, even though the upper parts (probably at least three miles) of the Big Butte volcano—25 million years younger than the granite—have also eroded away. Erosion proceeded just far enough to expose the granite's cracks and veins filled with rich metallic ores—a lucky chance.

As the edges of ore veins eroded away, broken pieces of rock and ore washed into rivers—a process that continues today. Water winnowed the fragments, separating the denser, heavier chunks that could not be carried as far, and deposited them in low spots in the river, or along meanders where the river flowed more slowly. These concentrations of dense minerals (often including gold) are called *placers*, usually the easiest gold to discover and separate using a simple gold pan or sluice box.



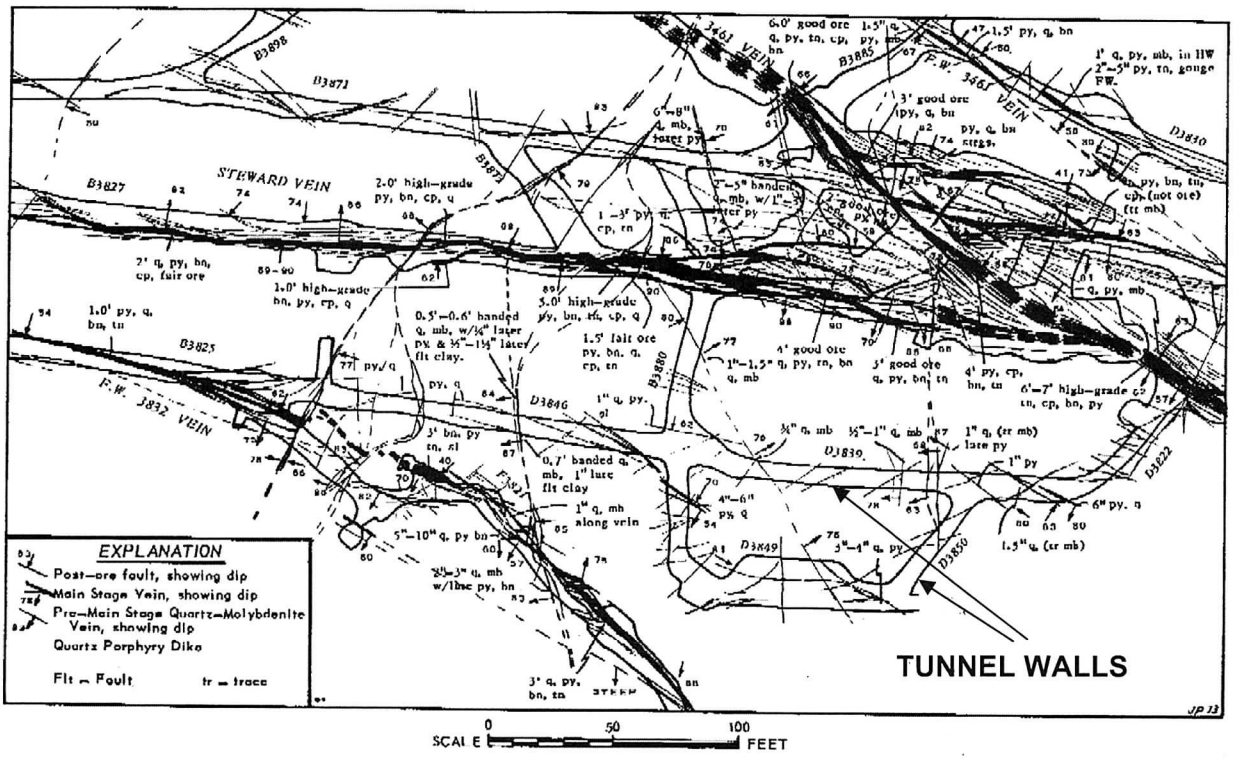
Placer miner with a gold pan.



Placer deposits (black dots) form at selected locations along stream courses. Bedrock containing gold and other ores is indicated by the random dash pattern, with an intrusion of different rock at right.

Even before the easy-to-find gold in placers played out, miners were scouring the Butte Hill for outcrops of ore veins. Underground miners chased these veins and ultimately created more than 10,000 miles of underground workings—drifts, stopes, crosscuts, and shafts—beneath about five square miles of Butte's land. The initial 1860s boom was driven by gold exploration, and resulted in a population in the vicinity of Butte estimated variously at 500 to 1500. By 1874, however, Butte's population had dropped to an estimated 50 or 60 relatively desperate miners. Discovery of abundant hidden silver in 1875 saved Butte, and the geology of the ore deposit controlled how the mines and neighborhoods developed.

The minerals of Butte are arranged in concentric zones, like a big irregular onion, sliced to give the appearance of a gigantic bull's-eye. The outer zones, especially on the north and west sides, are richest in silver, lead, zinc, and manganese, so some of the older mines—the Orphan Girl (at the World Museum of Mining), Travona, and the Alice up north in Walkerville—started as silver mines. Walkerville grew up as one of the first neighborhoods (it



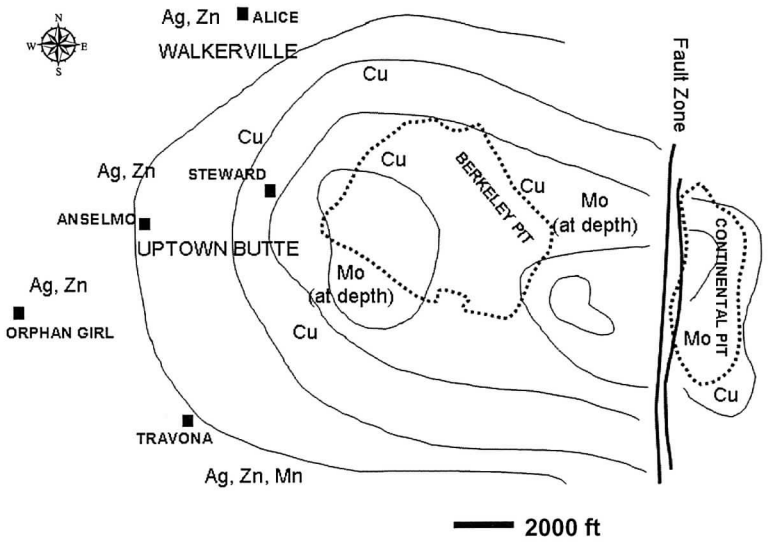
Map showing variability and complexity of underground vein system. This is at the 3800 level (3800 ft below surface) at the Steward Mine. The paired lines represent man-made tunnels (drifts and stopes). All other lines are veins. The Steward Vein, extending left-right just above center, was more than 10 feet thick in places. From Proffett (1978).

was, strictly speaking, a city in its own right, and is still independent of Butte), settled by Cornish miners and named for the mine's owners, the Walker brothers of Salt Lake City. They hired young Marcus Daly, an Irishman fresh from the Comstock Silver Lode in Nevada, to manage their mine. His experience and earnings allowed him to prosper and acquire the Anaconda mine in the middle of the district—the zone that was not silver-rich, but which contained some of the thickest, richest copper veins known on the planet.

Daly's discovery of the Anaconda copper vein in 1882 was timely. The invention of the telephone (1876) and electric light (1879) created huge demand for copper for wiring. Butte's population grew from about 3,300 in 1880 to 23,000 in 1890 and to an estimated 85,000 to 100,000 in 1917. (Butte's population today is about 32,000.) Mining development of the central zone, rich in copper, expanded with the population, until in the early part of the 20th century Butte was supplying nearly a third of all the copper produced in the world. Butte's copper was the most important single factor in electrifying North America. Following the silver crisis of 1893, many silver camps ceased operations. Butte was impacted, but by that time copper was already at the forefront of the mineral treasures here, and silver remained a valuable byproduct—enough so that Butte is the second largest producer of silver in the United States (after Coeur d'Alene, Idaho) and likely in the top five silver producers in the world.

Another important mineral zone lies about 2800 to 4000 feet beneath most of Butte. The molybdenum, or moly, zone was known and small amounts were produced in the early 20th century as steel alloys with moly were found to add strength and corrosion resistance to engine parts and other commodities. This zone came into its own in the middle 1980s, and remains important today with molybdenum the primary byproduct (and at times, the most valuable product) at the Montana Resources Continental Pit, east of the Berkeley Pit. Most of Butte's molybdenum has come from the Continental Pit in the past 20 years. The east wall of the Continental Pit is visible beneath the East Ridge, viewed east along Broadway Street. Molybdenum can be mined in the relatively shallow Continental Pit because the zone was uplifted by as much as 4000 feet along faults that lie between the Berkeley and Continental Pits.

During the century of underground mining, from about 1875 to 1975, the richness of the ore varied from vein to vein, but copper values ranging from 5% to 10% were common, especially in the early years. One vein in the Anaconda Mine was more than five feet thick and assayed at 55% copper. For several years



Generalized map of mineral zonation for Butte area. Modified from Czehura (2006) and other sources. Ag = silver, Zn = zinc, Mn = manganese, Cu = copper, Mo = molybdenum.

in the early 1880s, ore averaged 45% copper, rich enough to make it highly profitable despite shipping it all to Swansea, Wales, for processing. Even silver was occasionally produced at rates exceeding 1,000 ounces per ton. In contrast, the Berkeley and Continental Pits extracted much lower grades of ore. Today, the Continental Pit's copper grade is about 0.3% (three-tenths of one percent), yielding about 6 pounds of copper per ton of ore, together with not quite one pound of molybdenum per ton. At the peak in 1915-1918, about 16,000 men were employed underground. Today the Continental Pit employs about 350.

The billions of pounds of copper produced from Butte represent enough to pave the Interstate from Butte to beyond Salt Lake City—450 miles—with pure copper four inches thick.

Arizona, Utah, New Mexico, Nevada, and Montana (in decreasing order) account for 99% of domestic copper production, but despite more than a million metric tons extracted from US mines, in 2007 the US was dependent on copper imports for 37% of its needs. The building construction industry consumes just over half of the copper used today. Electronics account for another 19% with consumer and general products at 11%; transportation equipment, 10%; and industrial machinery and equipment, 9%.

More than 80% of moly consumption goes to steel alloys, in applications where the steel needs to have strength at high temperatures and pressures, as in airplane engines. Moly steels are corrosion resistant and are used in water and gas transmission systems and hospital and food-handling equipment. The US is a net exporter of molybdenum, one of only a few mineral commodities for which this is the case.

RICHEST HILL ON EARTH

Is Butte really "The Richest Hill on Earth"? The US Geological Survey has estimated the value of Butte's total mineral production and reserves at $162 billion in 1987 dollars, well ahead of US #2 Bingham Canyon, Utah, at $128 billion. In the world, however, it is likely that the vast deposits of copper in Chile as well as the gold mines of South Africa have produced and/or contain mineral wealth of greater value, and this may also be true of a few other mining districts elsewhere in the world. Butte is not about to change its nickname, though!

The Landscape

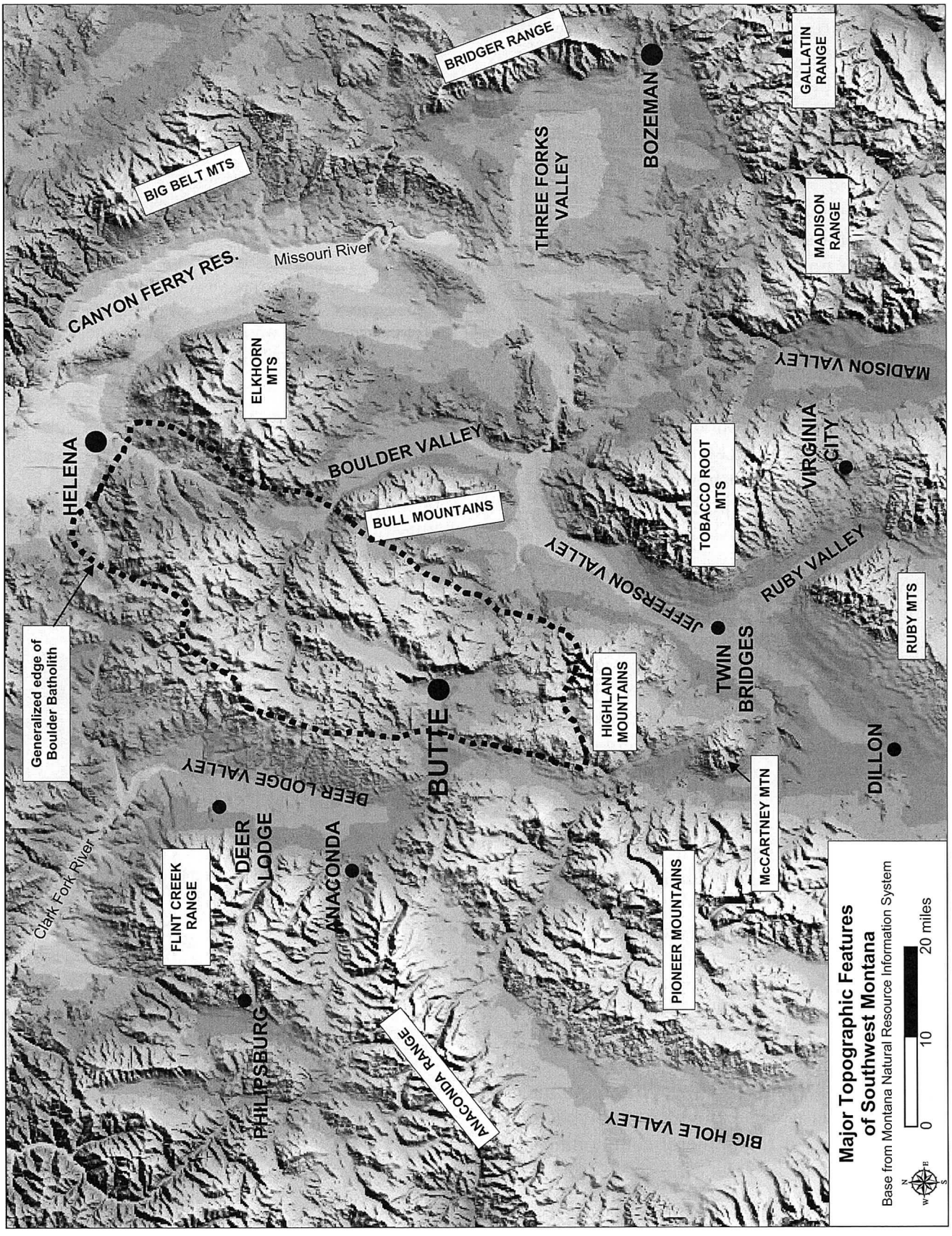
Southwest Montana is a land of fertile but semi-arid valleys separated by relatively small but high mountain ranges. This general topography is the result of the most recent geologic activity in the region. (Map, page 6.)

BUTTE MINERAL PRODUCTION

1880 through 2000
with ranks in US by US Geological Survey

Copper: Butte #2 in production, #1 in produced + reserves
Silver: Butte #2 in production, #1 in produced + reserves
Zinc: Butte #6 in production, #4 in produced + reserves
Manganese: Butte probably #1 in production

COPPER	21,479,571,676 pounds
ZINC	4,909,202,540 pounds
MANGANESE	3,702,787,341 pounds
LEAD	854,797,405 pounds
MOLYBDENUM	183,128,294 pounds
SILVER	714,643,005 troy oz
GOLD	2,922,446 troy ounces
CADMIUM	4,306,156 pounds
BISMUTH	4,042,663 pounds
SELENIUM	316,855 pounds
TELLURIUM	237,256 pounds


BRIDGER RANGE
BOZEMAN
GALLATIN RANGE
BIG BELT MTS
THREE FORKS VALLEY
MADISON RANGE
CANYON FERRY RES.
Missouri River
MADISON VALLEY
ELKHORN MTS
HELENA
BOULDER VALLEY
VIRGINIA CITY
BULL MOUNTAINS
TOBACCO ROOT MTS
JEFFERSON VALLEY
RUBY VALLEY
Generalized edge of Boulder Batholith
HIGHLAND MOUNTAINS
TWIN BRIDGES
RUBY MTS
BUTTE
DEER LODGE VALLEY
DILLON
Clark Fork River
FLINT CREEK RANGE
DEER LODGE
ANACONDA
McCARTNEY MTN
PIONEER MOUNTAINS
PHILIPSBURG
ANACONDA RANGE
BIG HOLE VALLEY
Major Topographic Features of Southwest Montana
Base from Montana Natural Resource Information System
0
10
20 miles

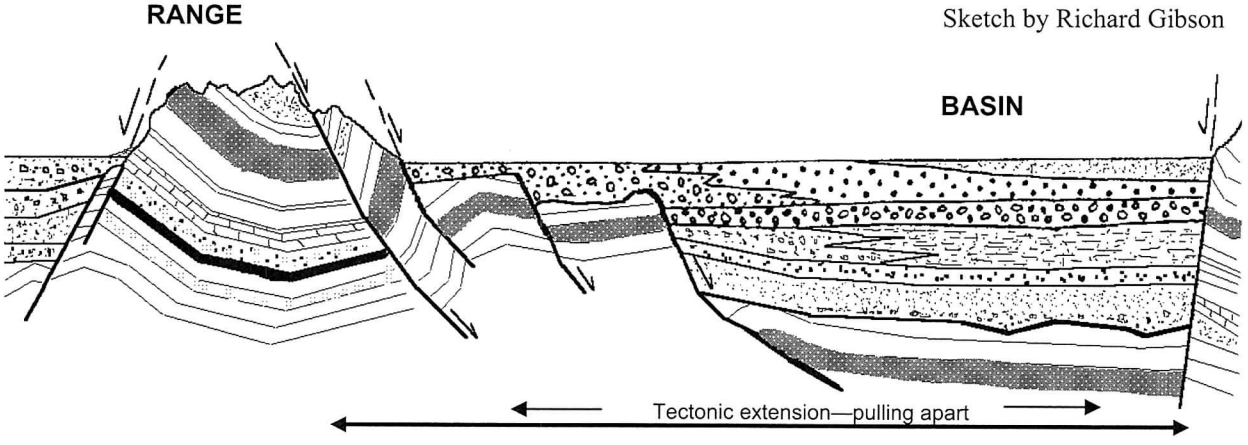
Although the underlying geologic structures of Butte and vicinity resulted from great tectonic collisions, the present-day framework is the result of relaxation and pulling apart. Much of western North America is like almost-solid peanut brittle being tugged at by fighting children, with the result that many areas—most of Nevada, western Utah, southeast Idaho, and southwest Montana—are breaking apart.

When rocks break along faults, one side goes up or down with respect to the other (or sometimes sideways). Gigantic blocks dropped down along normal faults develop as a result of pulling apart, like the keystone at the top of an arch. A down-dropped basin formed in this way is called a graben, and many of the modern river basins in the region formed in this way, with fault lines along mountain fronts. The Jefferson, Madison, and Bitterroot valleys are among the best examples in western Montana of this origin. The Deer Lodge Valley is similar, but with only a single large fault bounding the basin on one side, making it a half-graben. It contains as much as 10,000 feet of sediment (including lake beds, river sediments, and glacial deposits) eroded from the adjacent highlands over the past 50 million years.

Over time, this basin-and-range landscape has been modified by erosion. At times, southwest Montana was much more humid than at present, resulting in greater erosion. Today, the semi-arid environment means that most weathering is simple mechanical destruction of rocks by freezing and thawing, and by flowing water when it does rain.

During the most recent ice age (from about 2,000,000 to 14,000 years ago), glaciers were not present at Butte. But in the high mountains nearby, small ice caps formed, and many valleys bore thick valley glaciers. To the west, much of today's Clark Fork River valley was occupied by Glacial Lake Missoula that formed on the ice margin when an ice dam developed in Idaho. The lake did not reach Butte; the furthest up the Clark Fork the lake extended was the vicinity of Drummond, about 75 miles downstream (northwest) of Butte. During glacial times, Butte uplands likely saw lots of rain and snow, but no glacial ice and no large, persistent lake.

The physical landscape today, apart from human-induced changes including vegetation patterns and mining, is much the same as it was when Lewis and Clark just missed Pipestone Pass and the headwaters of the Clark Fork River in 1805, a route that would have saved them much hardship.



Sketch by Richard Gibson

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Flora and Fauna

The mountains of western Montana contain abundant large mammals, diverse birds, and fish. This section describes the setting in and near Butte and Anaconda.

Moose have been seen infrequently in Butte, mostly in the relatively open spaces a few blocks off Harrison Avenue on the Flats, and in the area around Big Butte. Deer are common, and in some disused fields prairie dogs are found. Foxes frequent the Big Butte Open Space and are sometimes seen in town, along with their common prey—jackrabbits and cottontails.

Mountain bluebirds, ravens, goldfinches, magpies, and occasionally seagulls, hawks, and owls fly Butte's airspace, along with common sparrows, finches, and many other summer residents. Watery areas are avian gathering spots—watch for Canada geese and other waterfowl, especially along Blacktail Creek.

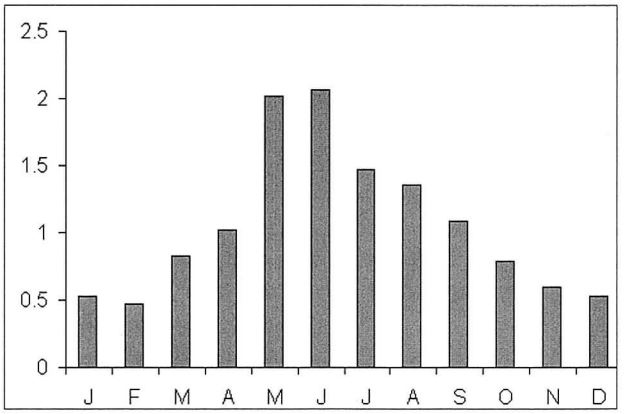
The long winter and semi-arid urban environment restricts the abundance of reptiles and amphibians, but garter snakes are found, as well as frogs and toads near watercourses.

Climate

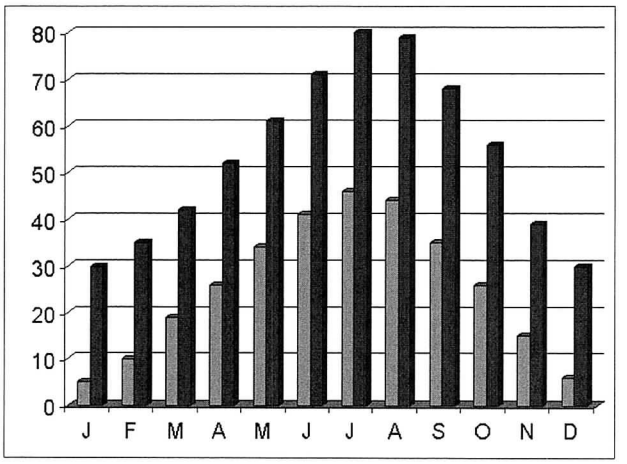
The high mountains and low valleys in western Montana produce a wide range of microclimates, ranging from boreal rain forests at lower elevations west of the Continental Divide to high alpine deserts. Winters in Butte are long, with short periods colder than 30° below zero (F) common. Spring is wet and cool, and summers are dry (with occasional, intense thunderstorms) and warm, with cool nights.

Ranching in nearby lower elevation valleys is restricted more by the arid climate than by a

short growing season. About 20% of Montana's work force is employed in the agricultural sector, but agriculture's $850 million in revenue only accounts for about 3% of the gross state product. The mining sector – including oil and gas—fluctuates significantly with the world economy and the prices of commodities, but in 2007 amounted to about 7% of the gross state product. (Sources: Bureau of Economic Analysis of the U.S. Department of Commerce and Montana Office of Economic Development.)



Average monthly precipitation in Butte, in inches. April and May are the snowiest months, but snow is possible in any month of the year. Summer rains usually come in brief, intense thundershowers. Butte's annual total precipitation of just under 13 inches makes its climate semi-arid. Data from NOAA.



Average high and low temperatures at the Butte airport in degrees Fahrenheit. On "The Hill" in Uptown Butte, temperatures are commonly about 5° warmer in winter and 5° cooler in summer than on the Flats.

Environmental Concerns

Butte is a cautionary tale in environmental mismanagement—and a success story of environmental restoration. A century of irresponsible mining practices, hidden away in remote Montana, all but killed the upper Clark Fork River, destroyed the utility of subterranean aquifers forever, and contaminated vast areas of soil. Butte and areas downstream for 120 miles became the largest Superfund site in the United States.

Like its namesake, the Anaconda Company squeezed its competition in the Wars of the Copper Kings, killed the Gibraltar of Unionism during the turbulence of 1914-1920, and throughout its tenure generally did what it wanted to in the name of "getting the ore in the box." Problems were not limited to the immediate vicinity of the mines in Butte. For decades, the smelter in Anaconda spewed acidic arsenic-laden smoke into the Deer Lodge valley. Among the first lawsuits (1900-1920) brought against the Anaconda Company were those of ranchers downwind from the smelter, where livestock was dying as were many square miles of trees in the National Forest. The latter allowed the Federal government to participate—but corporate pressure resulted in a change in the boundary of the National Forest, so that property of the United States was no longer damaged, and the Federal government no longer had standing in the cases. The battle—on the whole, a losing one—is documented in *Smoke Wars* by Donald MacMillan (Montana Historical Society Press, 2000).

The advent of environmental consciousness in the United States in the 1970s coincided with the end of Anaconda, as its assets in Chile were nationalized and the magnitude of its environmental liability became clear. By 1982, soon after the Anaconda Company was acquired by the oil company Atlantic Rich-

field (ARCO) in 1977, all mining and smelting operations in the Butte-Anaconda area ended. The ensuing economic catastrophe also resulted in a battle to remediate the environmental damage, but after decades of lawsuits, by 2008 most of the claims had been settled; one major consent decree was pending at this writing (April 2009). The State of Montana, and its partners Butte and Anaconda, have received many millions of dollars in settlements from ARCO and other potentially responsible parties.

In addition to the settlements awarded, ARCO has spent over $1 billion in Butte, Anaconda, and the Clark Fork River watershed to clean up damage caused by past mining, milling, and smelting operations. In some cases this means removing hazardous material, covering the exposed land with clean soil, and monitoring contaminant levels. It meant building a water treatment plant at the Berkeley Pit. It means providing for replacement funds in circumstances where the damage is deemed to be forever, as is the case with Butte's underground aquifers—Butte's water supply must instead be pumped many miles, from the Big Hole River across the Continental Divide, and from uncontaminated reservoirs high in the mountains. This is nothing new; the Big Hole Pump Station is a National Register listed site whose construction began in 1899 to supply water to Butte's burgeoning population.

Through Montana's Natural Resource Damage Program, funded largely by ARCO, a unique educational program has been developed to inform school children of what happened and why, and to encourage them to become caring stewards of their land and waterways. The Clark Fork Watershed Education Project (www.cfwep.org) is a highly successful example of place-based education, reaching more than 7,000 students in its first three years. Students make careful measurements of both damaged and pristine stream reaches to compare diversity of biota as an estimate of stream health. There is good news: the once-dead Silver Bow Creek and Upper Clark Fork River have come back to life and are clearly improving.

See also Quivik, this volume (p. 11).

Thanks to Dick Berg for a helpful review of this essay.



Students study Silver Bow Creek in Butte, formerly one of the most polluted tributaries of the Clark Fork River. *(Photo courtesy Clark Fork Watershed Education Project)*

SOME BUTTE MINERALS

Sulfur, producing sulfuric acid, and arsenic are the two greatest environmental problems.

Bornite Cu_5FeS_4
(copper-iron sulfide) peacock ore

Chalcocite $Cu2_S$ (copper sulfide)

Chalcopyrite $CuFeS_2$ (copper-iron sulfide)

Covellite CuS (copper sulfide)

Digenite Cu_9S_5 (copper sulfide)

Enargite Cu_3AsS_4 (copper-arsenic sulfide)

Molybdenite MoS_2 (molybdenum sulfide)
important ore of molybdenum

Pyrite FeS_2 (iron sulfide)
usually part of the waste rock

Rhodochrosite $MnCO_3$
(manganese carbonate)

Sphalerite ZnS (zinc sulfide)

Galena PbS (lead sulfide)

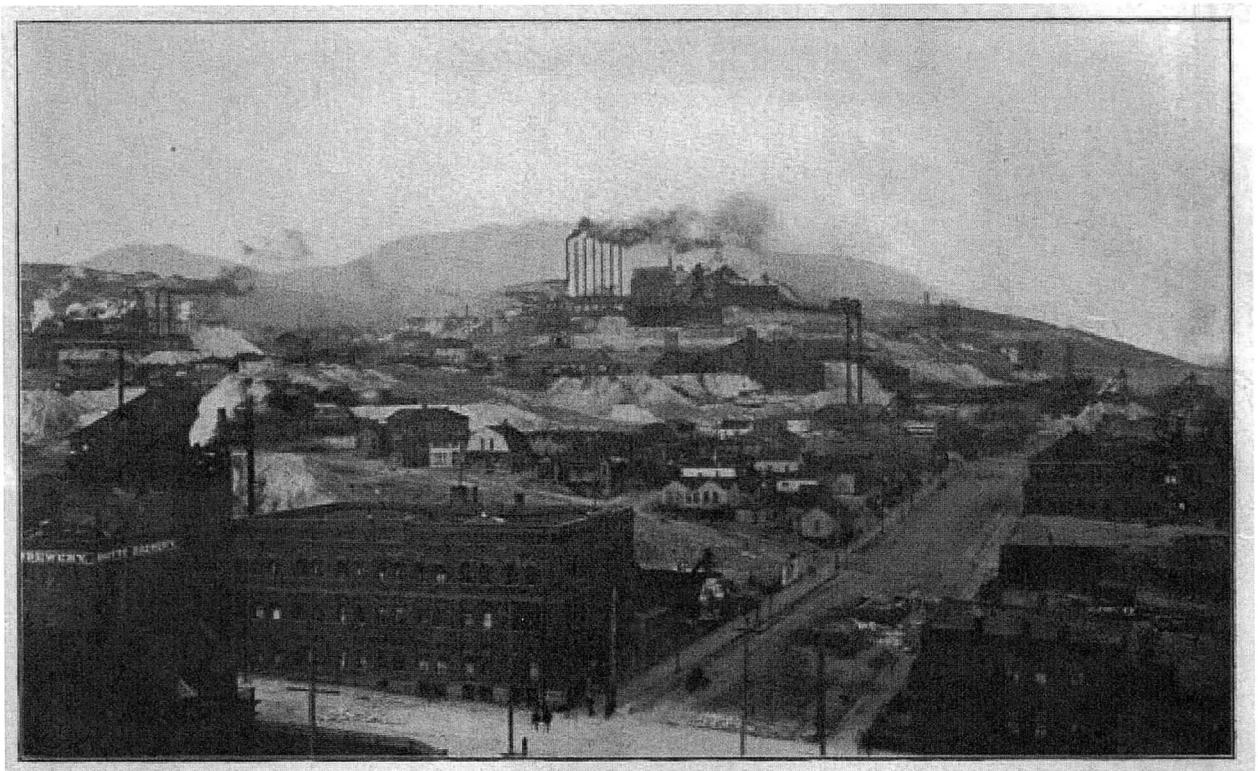
Mining Industry Foundations of the Built Environments of Butte and Anaconda

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The built environments of Butte and Anaconda are directly tied to the mining industry, one of the two main economic magnets (the other being agriculture) that drew new settlers to Montana in the late nineteenth and early twentieth centuries. Montana shares much in this regard with its neighboring states. Butte and Anaconda stand out among mining-related cities in the Rocky Mountain West, however, because of the scale of their industrial operations. From 1887 through World War I, Butte was the world's largest supplier of copper, and Butte was the largest mining city in the U.S. Anaconda was home to the world's largest non-ferrous metallurgical works. Consequently, the built environments of the two cities share facets of the character of an impermanent mining camp as well as of a significant urban place. Neither Butte nor Anaconda was a company town in the technical sense (meaning the dominant corporation owned the housing, provided essential services such as selling groceries, and took payments for rent and purchases from the company store out of the employees' paychecks), but both cities came to be dominated by a single corporation.

Butte arose as a typical mining camp in the 1860s, grew into a large mining city that housed the operations of several of the nation's largest copper mining companies, and entered the World War I era dominated by the company that consolidated the rest of the those companies, the Anaconda Copper Mining Company (ACM). The city of Anaconda was established by the Anaconda Company, but from the beginning the ACM's Marcus Daly laid out the town for the sale of lots so that it could develop more or less through the conventional real estate market (needless to say, the ACM continued to play a prominent role in that market and in the institutions that arose in Anaconda). This essay will provide an overview of the mining and industrial histories of the two cities within which members of the Vernacular Architecture Forum may enhance their understandings of the development of the rich cultural treasures of the two communities, including their human-built landscapes.

Butte's founding occurred during Montana's gold rush, which began in 1862 with the discovery of gold on Grasshopper Creek in the southwestern part of the territory. The boomtown of Bannack emerged, and from that base gold-seekers explored the surrounding mountains and valleys hoping to discover more gold. In 1863, prospectors found placer deposits along Alder Gulch, seventy miles east of Bannack, and established Virginia City, Montana's richest gold-mining camp. In 1864, a party based in Virginia City found placer gold



RICHEST MINING SPOT ON EARTH.
Famous "Anaconda Hill," showing different mines of the Parrot lode, the scene of early-day mining.

Mines on the Butte hill were adjacent to the city's neighborhoods and business districts (photo from Harry C. Freeman, *A Brief History of Butte, the World's Greatest Mining Camp*, 1900). This view shows the Neversweat mine (the seven stacks) from the northeast edge of the central business district.

and staked claims north of the Highland Mountains along Silver Bow Creek, in a high mountain basin called the Summit Valley, some 60 miles to the north of Alder Gulch. When they returned to Virginia City for supplies, news of their discovery spread. Several other parties followed those first discoverers back to the Summit Valley, and by autumn 1864, they had established a rude camp at the headwaters of Silver Bow Creek in what they called Town Gulch.[1] The settlement was located just north of what would become the Parrot Mine, which has been subsumed by the present day shops of the Kelley Mine.

During its first decade, Butte's history was not unlike that of most other small Western mining camps: a few boom years of relative prosperity, followed by a bust. Yet almost from the beginning, knowledgeable miners who picked at Butte's rock outcroppings recognized an abundance of copper, manganese, and other base metals. To economically recover wealth from such ores, however, the miners would have to bring to Butte a more complex technological dimension than they had been using. They had to bring the capability for smelting, which used heat to melt the ores, thus physically and chemically separating the metal from less valuable elements. Undaunted by the difficulty of the endeavor in a place as remote as Butte, a few miners built crude furnaces. They were not successful. Not until fifteen years after the discovery of gold in the Summit Valley did a new generation of entrepreneurs—better capitalized and more highly trained—succeed at smelting copper.

[1] Michael P. Malone and Richard B. Roeder, *Montana: A History of Two Centuries* (Seattle: University of Washington Press, 1976), 50-55; Malone, *The Battle for Butte: Mining and Politics on the Northern Frontier, 1864-1906* (Seattle: University of Washington Press, 1981), 3-8.

From that point onward, Butte departed from the path followed by most other Rocky Mountain mining camps and began its ascent to the position it held for about three decades as the world's most productive copper-mining district.[2]

During that reign, Butte gained the name, "The Richest Hill on Earth," a designation bearing an element of geological truth. The name stems from the boosterism of miners and promoters who wanted to attract capital and its attendant development to Butte. Such boosterism was widespread throughout the West, but in Butte's case it proved accurate, as Butte grew to become the nation's largest mining city. In the process, the miners' hard work and Butte's great mineral wealth contributed to prosperity for the entire nation, for the rise of Butte coincided with Thomas Edison's invention of the incandescent light bulb and his development of the Pearl Street generating station in New York City in 1882, technological developments that led directly to the electrification of American society. Americans used little more than a half-pound of copper per capita in 1870; in 1880 they were using about a pound of copper per capita, and copper consumption tripled by 1890. U.S. copper consumption reached its peak at just over twenty pounds per capita in 1929, and the copper production The Richest Hill on Earth contributed mightily to this consumption.[3] As with so much boosterism, however, Butte's moniker ignores the unintended consequences of an achievement. In Butte's case, those unintended consequences include huge hills of earthen material discarded during the extraction of millions of tons of ore; vast deposits of tailings resulting from the mineral processing of those ores; a giant open-pit mine filling with toxic water contaminated with heavy metals; and thousands of acres of land in which vegetation has been severely damaged by smelter smoke.[4] Those environmental consequences and the infrastructure designed to manage them are part of the human-made landscape the VAF will see around Butte and Anaconda.

Overview of Butte's Mining History

Butte's first phase of mining was placer or hydraulic mining, meaning that companies of miners used water to dislodge gravels along the Butte hill, its gullies, and Silver Bow Creek and to transport those gravels through sluice boxes and other crude devices in order to separate particles of gold from less dense rock. Hydraulic mining necessitated the construction of ditches and flumes to convey water from the nearby hills; vestiges of those ditches are still visible in the vicinity of Butte. Missoula Gulch, which runs from north to south through Butte's west side, was one of the areas that was extensively mined by hydraulic means in the early years. Placer mining along Silver Bow Creek peaked in about 1867, when the population in and around Butte may have reached 500. Production of gold and the population in and around Butte both declined after that because of several dry years, meaning little water was available for hydraulic mining, and because the gravels around Butte were not very rich. By 1869, there were only about 50 miners working the gravels around Butte.[5]

As placer mining was booming and going bust at Butte, another class of miners, called "quartz cranks," concentrated their efforts at digging into the Butte hill, trying to under-

[2] For a comparison of Butte's copper production and that of other copper-mining districts in the U.S., see Otis Young, "The American Copper Frontier, 1640-1893," *The Speculator: A Journal of Butte and Southwest Montana History* 1 (Summer 1984): 4-15.

[3] Richard P. Rothwell, ed., *The Mineral Industry, 1892*, Vol. I (New York: The Scientific Publishing Company, 1893), 117; George H. Hildebrand and Garth L. Mangum, *Management and Labor in American Copper, 1845-1990: Linkages Between Product and Labor Markets* (Cambridge, MA: Harvard University Press, 1992), 97.

[4] Edwin Dobb, "Pennies from Hell: In Montana, the Bill for America's Copper Comes Due," *Harper's Magazine* 293 (October 1996): 39-54.

[5] M.A. Leeson, *History of Montana, 1739-1885* (Chicago: Warner, Beers & Company, 1885), 274.

stand the mineralization that was so prominent in the rock outcroppings, and hopefully developing profitable hard-rock mines. Assays of samples taken from their diggings showed promising values in gold, silver, copper, and other metals, but it would take several years before those diggings succeeded in yielding ore, because the definition of ore is an economic one. "An *ore* [emphasis in the original] is a natural aggregation of minerals from which a metal or metallic compound can be recovered with profit on a large scale. When the percent of metal is too low for profitable extraction the rock ceases to be an ore." [6] Whether the extracted rock can yield profit depends on several factors in addition to the percent of metal it bears. Those factors include the cost of extracting the rock from the ground, the cost of processing the rock so to yield a product that can economically be shipped to market, the cost of shipping product to market, and the price the product fetches on the market. Those first quartz cranks faced a daunting task, the promising assays of their samples notwithstanding. Butte was a remote camp in the Rocky Mountains, far from markets for metals, far from the nation's transportation network, and far from sources of mining and metallurgical equipment that could help lower the costs of extracting and processing rock from the Butte hill.

The quartz cranks persisted, however, and by the year of the United States' Centennial celebration several of Butte's hardrock mining enterprises were on the verge of success. An address given at Butte's 1876 Fourth of July celebration credited William Farlin with the camp's first successful silver mill, the Dexter, located in Missoula Gulch near his Travonia mine (a more modern steel headframe stands over the Travonia shaft today), and the speaker credited William Parks with developing the first successful copper mine. Key to the success of both ventures was the nation's first transcontinental railroad, which had been completed in 1869. Farlin had secured financing from a local banker, W.A. Clark of Deer Lodge, so that he could purchase mill equipment and have it freighted overland from the transcontinental railroad at Corinne, Utah. Parks and his men had dug a 150-foot-deep shaft and driven a cross-cut 200 feet toward where he believed an ore body to be. Early in 1876, he struck a vein of copper glance (chalcocite, Cu_2S, a copper sulfide ore) four feet wide. Using a hand windlass, he was able to hoist a ton of ore daily, place it in sacks, and ship it by wagon to Corinne. [7]

Neither Farlin nor Parks profited in the long-term, but word of their successes attracted miners with greater means and investors to Butte, and soon industrialized mining operations and silver mills were in development. One of the most successful enterprises was the Alice mine and mill, owned by the Walker brothers of Utah and managed by Marcus Daly, an Irish immigrant who had become a successful miner in the Utah mines. The Walkers sent Daly to Butte in 1876 to inspect and then purchase the Alice mine on their behalf. He took charge of developing the mine and building the mill, which went into operation in October 1877. The town of Walkerville grew up around the Alice mine, north of Butte. Within a short time, several other silver mills were operating successfully, the largest of which were the Moulton and the Lexington, both near the Alice, and the Silver Bow mill, located east of Butte near Silver Bow Creek. Entering the 1880s, Butte was Montana's largest silver-mining camp. It had a stable silver-mining industry and a growing copper-mining industry. Butte's silver mills were treating about 250 tons of silver ore per day in 1882. By comparison, Butte's copper smelters were treating about 200 tons of copper ore daily. Butte's silver mines were already on the wane when the silver crash hit in 1893. Meanwhile,

[6] Robert Richard, *A Text Book of Ore Dressing* (1909), 1.

[7] Fredric L. Quivik, "Smoke and Tailings: An Environmental History of Copper Smelting Technologies in Montana, 1880-1930" (unpublished PhD dissertation, University of Pennsylvania, 1998), 90-94.

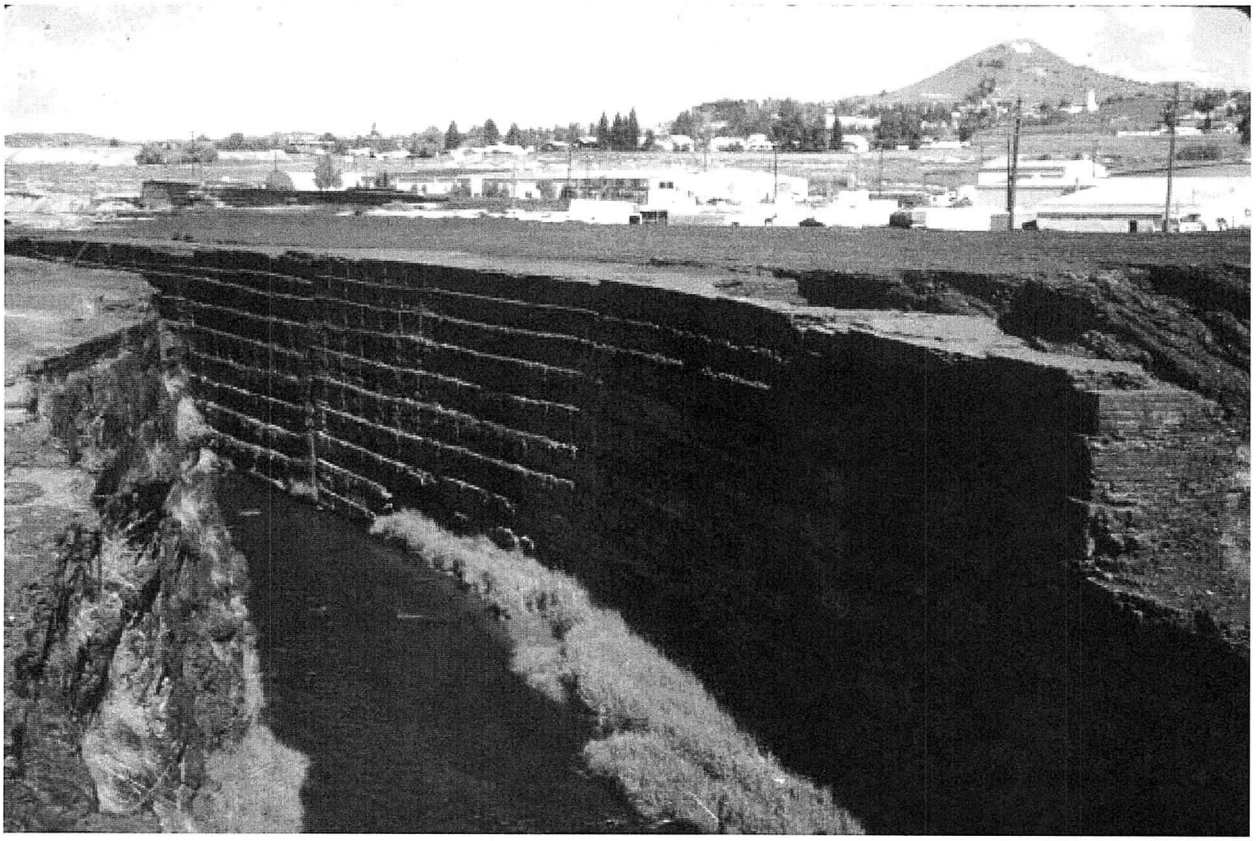
Butte's copper mines continued to grow phenomenally through the 1890s and into the twentieth century.[8]

Butte's first successful copper smelter resulted from a partnership of W.A. Clark of Butte and N.P. Hill, who had established a prosperous copper-smelting enterprise at Black Hawk, Colorado. Clark had begun shipping copper ore to Black Hawk in 1878. Hill liked the ore he was receiving from Butte, so he sent one of his skilled smeltermen, Henry Williams, to Butte to investigate the situation. The following year, Hill, Clark, Williams and others established the Colorado & Montana Smelting Company, and developed a smelter along Silver Bow Creek downstream of today's Montana Street. The Colorado smelter started treating Butte ores in August 1897, with Williams managing the operation.[9] There is a cluster of working-class cottages on a small hill adjacent to the smelter site, just south of the creek and west of Montana Street. It is called Williamsburg and is named for the first manager of the Colorado smelter.

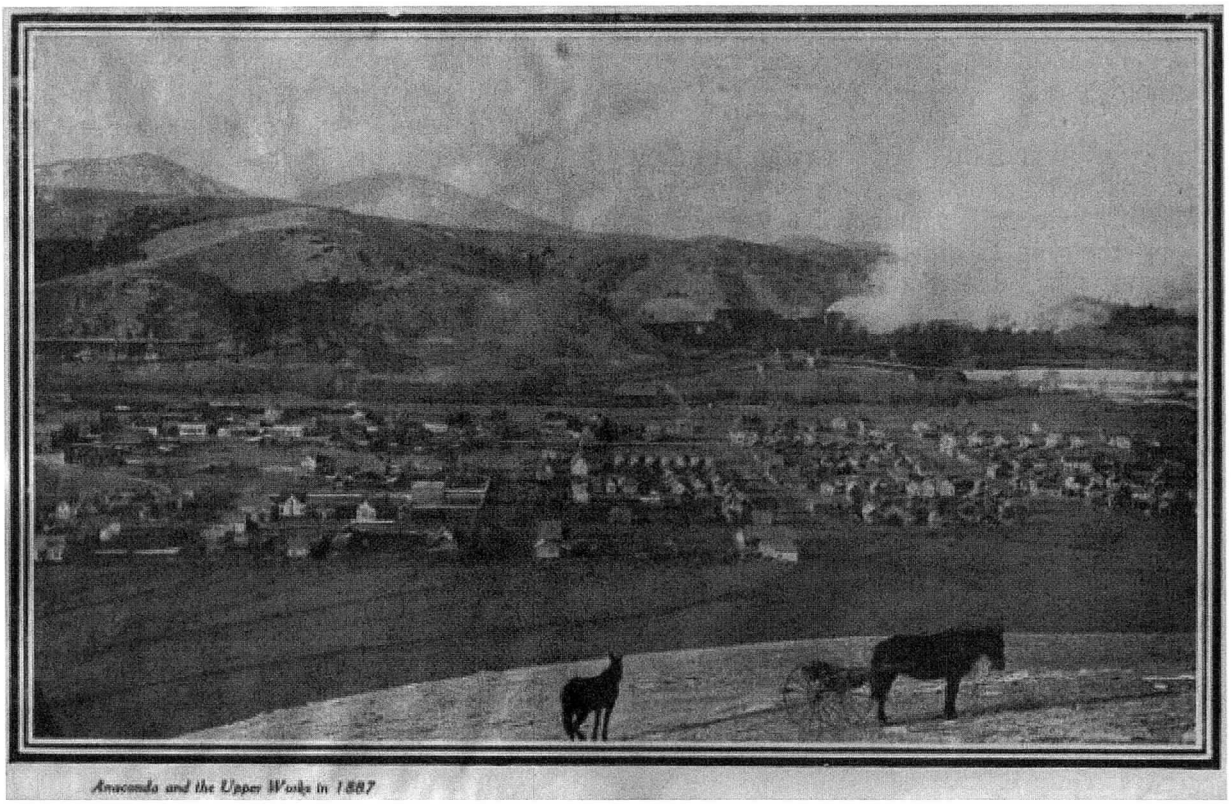
Several other copper smelters followed on the heels of the Colorado. Their developments were aided greatly by the arrival of the railroad in Montana. The Union Pacific's subsidiary, the Utah & Northern, was the first railroad to reach Montana—crossing the southern border from Idaho in 1880—and the first to serve Butte, completing its tracks into the thriving mining city in 1881. The Northern

[8] Quivik, "Smoke and Tailings," 104-111, 120-121, 149-154.

[9] Quivik, "Smoke and Tailings," 117-119.



Slag canyon along Silver Bow Creek at site of Butte Reduction Works, Butte, 1996 (photo by F. Quivik). The Butte Reduction Works built this feature (visible along west side of Montana Street) out of poured-in-place slag in order to keep the creek from washing tailings away.



Upper Works, Anaconda, 1887 (photo from "The Anaconda Reduction Works," booklet published by the Anaconda Copper Mining Company, 1920). This photo shows the smelter in the right background three years after it went into operation in 1884. The east end of the town of Anaconda is shown at mid-ground.

Pacific completed its transcontinental railroad in 1883, driving its golden spike at Gold Creek, north of Deer Lodge. The Union Pacific and the Northern Pacific then established a jointly-owned subsidiary, the Montana Union, to run a line from Butte west and north through the Deer Lodge Valley to the NP's main line north of Deer Lodge. Spurred by improved transportation, capitalists from the East Coast began investing in Butte mines and smelter developments. New York investors led by the Lewisohn Brothers, who were prominent international metals brokers, started the Montana Copper Company, which fired its new smelter along upper Silver Bow Creek in 1880. Charles Meader was an early manager of the Montana Copper Company's operations, but he soon left the company to start a new company and build another smelter, the Bell, located on Blacktail Deer Creek, near the present location of the Harrison Avenue interchange on I-15/90. A community of miners and smelterworkers grew along Silver Bow Creek near the Montana smelter (alternately called the Colusa smelter). Named Meaderville, it became one of the more storied neighborhoods of the larger urbanizing area of Butte. Meaderville was wiped from the face of the earth by the development of the Berkeley Pit in the late 1950s. Meanwhile, Meader's Bell smelter was the only failure among Butte smelters after the initial failed attempts to smelt Butte ores in the 1860s.[10]

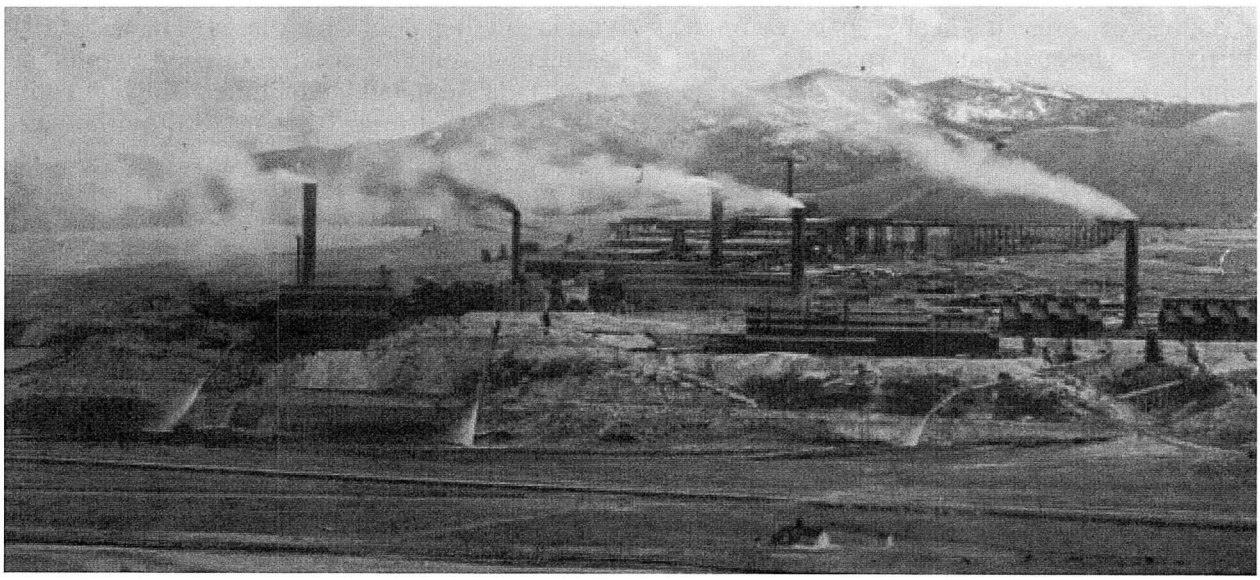
The other successful Butte smelters of the nineteenth century included the Parrot, established by capitalists from Connecticut and Helena; Clark's Colusa, established by W.A. Clark; the Butte Reduction Works, developed by a New Jersey company and soon purchased by W.A. Clark; the Butte & Boston (B&B) smelter, established by Boston and New York capitalists; and the Montana Ore Purchasing Company smelter, established by F. Augustus

[10] Quivik, "Smoke and Tailings," 130-134, 145-148.

Heinze, perhaps the most notorious of Butte's three main Copper Kings (the other two being Clark and Daly). From his mines, Heinze drove workings into ore bodies of other companies and then defended his miners' actions in the courts using the law of the apex, by which he claimed he was merely following veins of copper ore that apexed on his mining claims. The Butte smelters featured several important metallurgical developments: the Montana smelter was the first in Butte to build a concentrator to separate valuable minerals from worthless host rock before subjecting the concentrates to smelting; the Parrot was the first copper smelter in the U.S. to successfully use the Bessemer process (called the Manhes process when applied to copper) in order to produce a more refined finished product. The companies that owned these smelters also owned some of the more important mines on the Butte hill. The Parrot Silver and Copper Company owned the Parrot Mine, W.A. Clark owned the Original and Stewart Mines, the B&B owned the East and West Gray Rock Mines, and Heinze owned the Rarus.[11]

An important set of changes took place for the companies that owned the Montana and Clark's Colusa smelters. The Lewisohns, along with a group of Boston capitalists who owned some important copper mines on Michigan's Upper Peninsula, negotiated a deal in 1887 whereby they would consolidate the Montana Copper Company and Clark's Colusa Mine and smelter with the fabulously rich Mountain View Mine, which had been developed but not put into production by Charles Larabie. The new company would be called the Boston & Montana Consolidated Copper & Silver Mining Company. In addition to the Mountain View, the new company would operate the East and West Colusa Mines and the Pennsylvania Mine, some of the richest properties on the Butte hill. Within a few years, the directors of the Boston & Montana decided that the old Montana and Clark's Colusa smelters did not have enough capacity to smelt their ores, and timber and water shortages in Butte made increasing their capacities impractical. The company therefore decided to build a new smelter at Great Falls, more than 100 miles from Butte on the Missouri River. Ore would be shipped to Great Falls over the Montana Central Railroad, a major branch line of the Great Northern Railroad that had recently reached Butte. A major attraction was the hydropower potential at the Great Falls of the Missouri that could be tapped to power the smelter. There were also coal deposits near

[11] Quivik, "Smoke and Tailings," 133-143, 145-148.



Washoe Reduction Works, Anaconda, 1902 (photo from F. Quivik collection). This photo shows the smelter prior to construction of the 300-foot stack.

Great Falls that could fire the furnaces. The B&M's new Great Falls smelter went into operation in 1892. By that time, Butte was supplying half the copper mined in the United States.[12]

Another problem in Butte that may have encouraged the B&M to relocate its smelter to Great Falls was smelter smoke. Roasting was a means by which the smelters drove off much of the sulfur in the ore before charging the material into the smelting furnaces, which operated at temperatures at which the metals and other elements in the ore melted. Once melted in a smelting furnace, the copper could be separated from the slag. The least expensive means of roasting was simply to pile ore on top of cord wood and set the wood afire, letting the whole heap smolder for weeks. Thick sulfurous smoke would drift into the atmosphere, but during inversions would hover along the ground, filling the Summit Valley with smoke so thick that sometimes artificial lights were needed to see at midday. During such extreme events, people with respiratory ailments got sicker, and many died. Residents of Butte had long recognized that the combination of smoke and winter inversions could make atmospheric conditions deadly, and in the early 1890s some citizens began pressuring Butte's City Council to regulate the methods companies used to roast copper ores. An ordinance passed in 1891 prohibited the open roasting of ores in heaps, and companies turned to various kinds of roasting furnaces, which discharged their smoke through short chimneys. But in the worst inversions such devices did not carry the smoke far enough aloft to remedy the problem. Smoke continued to be a major public health problem in Butte through the remainder of the nineteenth century. Needless to say, such smoke was harmful to more than humans; during those years of intense smelting activity in Butte, the city was virtually devoid of vegetation.[13]

[12] Quivik, "Smoke and Tailings," 172-174, 217-220.

[13] The best treatment of the smoke controversies in nineteenth-century Butte is the first half of Donald MacMillan, *Smoke Wars: Anaconda Copper, Montana Air Pollution, and the Courts, 1890-1920* (Helena: Montana Historical Society Press, 2000), 19-81.

The Rise of the Anaconda Copper Mining Company and the City of Anaconda

All of the above named copper-mining and smelting companies were quite large, but they were by no means Butte's largest. That distinction fell to the Anaconda Company, an enterprise started by Marcus Daly after he left the employ of the Walker Brothers. In 1880, he bought the Anaconda mine, a promising silver property, and enlisted the investment of three San Francisco capitalists, George Hearst, James Ben-Ali Haggin, and Lloyd Tevis, to develop the prospect. Daly drove the shaft a bit deeper, where he struck a huge and rich copper ore body. He then convinced his investment partners to build a huge smelting complex on Warm Springs Creek 26 miles west of Butte. To house workers at the new smelter, Daly established a new town, named for his mine, Anaconda. The new Anaconda works would dwarf any of the Butte smelters. At the time, the largest two smelters in Butte, the Montana and the Parrot, each had a capacity to treat 100 tons of ore per day. When the new Anaconda smelter went into operation in 1884, it had a capacity to treat 500 tons per day, and construction was on-going to increase its capacity to 1,000 tons daily. But Daly's Anaconda Company owned more than the Anaconda mine; the St. Lawrence, the Neversweat, the Mountain Consolidated, and others were producing more ore than the Anaconda smelter could handle, so Daly and his partners built a second reduction works at Anaconda, located two miles downstream. When it started operating in 1889 with a capacity to treat 1,800 tons of ore daily, it was called the Lower Works, and the 1884 smelter, now with a capacity of 1,200 tons, was called the Upper Works.[14] Ruins of these two smelters are clearly visible on the hills beyond the Old Works Golf Course, which was designed by Jack Nicklaus and built as part of the Superfund cleanup atop tailings and slag left from the two smelters' operations.

[14] Quivik, "Smoke and Tailings," 155-164, 198-203.

Daly had to rely on the Montana Union to haul ore from Butte to Anaconda, but he had had several disputes with the railroad over rates and service. Finally, in 1892, with the promise of help from his friend, James J. Hill of the Great Northern Railway, he decided to build his own subsidiary railroad, the Butte, Anaconda & Pacific (BA&P). Daly's new line began service in December 1893. Although it hauled passengers and other freight between Butte and Anaconda, its most important function was hauling ore from the mines to the Upper and Lower Works. Daly clearly understood that the new railroad was part of the integrated technological system for mining and smelting that he was developing.[15] Writing to Haggin, he stated, "The road from the Butte Mines to the smelter is as much a part and parcel of the works as the Bruckner furnaces or the jigs in the Concentrator."[16] Several prominent features of the BA&P from the 1890s survive in Anaconda, including the General Office and the roundhouse and shops complex. The roundhouse includes its original 1893 turntable, built by the Lassig Bridge and Iron Works of Chicago, a company that built a number of bridge structures for the Great Northern and other railroads. The yards at Rocker and East Anaconda are also important features of the railroad. Ore trains were assembled at Rocker from shorter strings of ore cars coming off the Butte hill, and then ore trains were disassembled at the East Anaconda yard so that smaller strings of cars could be moved up smelter hill to the concentrator.

The Anaconda Company built several other industrial facilities at Anaconda to support its giant mining and smelting enterprise, the most prominent of which was a plant known as the Foundry Department of the ACM. It started operating in 1890, managed by Shelley Tuttle. He had started a foundry in Butte in 1881; his business was one of several in the mining city that made mining and milling equipment. Marcus Daly decided to build a new foundry at the southwest corner of Anaconda in 1889 to support his mining and metallurgical enterprise. The following year, when the foundry went into operation, the business was incorporated as the Tuttle Manufacturing and Supply Company. Although Tuttle ran the foundry, Daly owned the controlling share of the stock. In addition to a foundry, the complex had a pattern shop, machine shop, and boiler shop. Tuttle sold his share in the company in 1896, and the following year the company's directors agreed to sell the business to the ACM, after which it was called the Foundry Department of the Anaconda Copper Mining Company. In 1980, when ARCO closed its Anaconda operations, it sold the foundry to former managers and engineers, who formed a business called AFFCO, which still operates the works.[17] Several years ago, AFFCO donated the contents of its giant pattern warehouse to the Anaconda Historical Society.

By the late 1890s, output from the ACM's mines again exceeded the Anaconda smelters' capacities, and the technologies were becoming outdated. But rather than remodel and enlarge the Upper and Lower Works, the ACM decided to build an entirely new smelter on the south side of Warm Springs Creek. The new smelter, which began operating in 1902, was called the Washoe Reduction Works, after the company that actually owned it. In the late 1890s, Daly and Haggin had formed the Washoe Copper Company as a separate corporation to develop and operate several new mines in Butte. The Washoe built the smelter, but it was operated under lease by the ACM. It was built with ample room around each of its departments (concentrator, roasting department, reverberatory department, blast furnace department, and converter department) so that

[15] Rex Myers, "The Butte Rail Connection: Mining and Transportation, 1880-1980," *The Speculator: A Journal of Butte and Southwest Montana History* 1 (Summer 1984): 30-37; Quivik, "Smoke and Tailings," 232-233.

[16] Marcus Daly to J.B. Haggin, letter dated 21 July 1890, folder 12, box 63, Records of the Anaconda Copper Mining Company, MC-169, Montana Historical Society Archives, Helena.

[17] Brian Shovers, M. Fiege, F. Quivik, and D. Martin, *Butte and Anaconda Revisited: An Overview of Early Day Mining and Smelting in Montana*, Montana Bureau of Mines and Geology Special Publication no. 99 (Butte: Montana Bureau of Mines and Geology, 1991), 45-50.

each department could be remodeled or enlarged without impinging on its neighbors. Each department had its own stack, which spewed smoke laden with sulfur and arsenic into the air. Almost as soon as the smelter started operating, farmers noticed their livestock dying; veterinarians said the cause was arsenical poisoning. Believing the source of the arsenic was smelter smoke, the farmers complained to the ACM, which paid the farmers for their lost livestock, closed the smelter, and remodeled it so that all the smoke traveled through a new flue system to a 300-foot-tall stack at the top of smelter hill. Still not satisfied, the farmers brought suit against the company. Although they lost the case, the trial was a monumental case featuring more than two hundred witnesses.[18]

The farmers had enlisted the support of the federal government. While the government experts were conducting field work in the support of the farmers, they saw that sulfur dioxide in the smoke was killing trees on thousands of acres of national forest adjacent to the smelter, so in 1910 the United States filed suit against the ACM. Before the case went to trial, the government and the company reached an agreement to create a three-man board of experts, whose expenses the ACM would pay, to conduct research and development to find technical solutions to the smelter smoke problem. The ACM agreed to implement any recommendations the board of experts made. The most prominent of the recommendations was to replace the 300-foot stack with a 585-foot stack outfitted with electrostatic precipitators at its base. The precipitators would recover arsenic dust from the smoke, and the new stack would provide the draft to carry the remaining smoke aloft. The technical fix addressed the arsenic problem, but it did not address the sulfur problem. Instead, the government and the company agreed in the 1920s to a land exchange, with the ACM accepting title to more than 100,000 acres of damaged timber land in the vicinity of the smelter in exchange for deeding a like area of healthy timber land to the government elsewhere in Montana.[19]

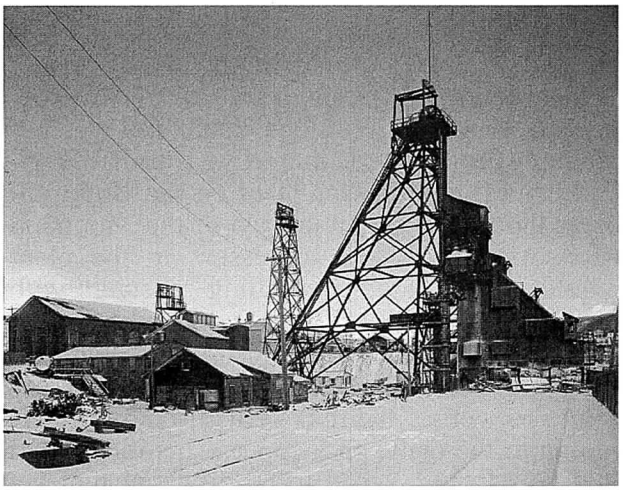


Ruins of a reverberatory furnace, Upper Works, Anaconda, 1982 (photo by F. Quivik). Note ruins of flue on hillside in background. These ruins are now in the midst of the Old Works Golf Course.

The Washoe smelter continued operating until 1980, when it closed temporarily during a labor strike. Much to the public's surprise, ARCO (the oil company that bought The Anaconda Company in 1976) decided to close the smelter permanently before the strike settled, citing the poor copper market and high labor and environmental-compliance costs. That same year, Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act, which created Superfund, the national program to cleanup hazardous materials at old industrial sites. Since that time, much Superfund remediation has taken place in and around Anaconda, the most visible feature of which is the Old Works Golf Course. ARCO demolished the smelter shortly after it closed, but a community group, Save Our Stack (SOS), rose up and convinced the company not to demolish the stack. It now stands as a State Monument.

[18] Gordon Morris Bakken, "Was There Arsenic in the Air? Anaconda Versus the Farmers of Deer Lodge Valley," *Montana: The Magazine of Western History* 41 (Summer 1991): 30-41; Quivik, "Smoke and Tailings," 274-278, 306-103; Quivik, "The Tragic Montana Career of Dr. D.E. Salmon," *Montana: The Magazine of Western History* 57 (Spring 2007): 33-47.

[19] Quivik, "Smoke and Tailings," 155-164, 198-203.



Anselmo Mine, Butte, 1980 (photo by Jet Lowe, Historic American Engineering Record). The Anselmo is the most intact mineyard in Butte (see also p. 150).

Consolidation of the Montana Copper Industry

About the time the ACM was making plans to build the Washoe Reduction Works to consolidate the operations of its two smelters at Anaconda into one location, the company was in the beginning of a corporate consolidation that would have significant consequences for the entire copper industry as well as the social, political, and built environments of Butte and Anaconda. Entering the late 1890s, several parties had been exploring possibilities to consolidate Butte's copper industry. One of the efforts came to fruition in 1899 when Marcus Daly joined forces with Henry Rogers and William Rockefeller of the Standard Oil Trust to form the Amalgamated Copper Company, which in turn acquired controlling interests in the ACM, Washoe Copper Company, Parrot Silver & Copper Company, and Colorado Smelting & Mining Company. Two years later, Amalgamated completed acquisition of the two Boston companies. Amalgamated was a holding company, so each of the companies it acquired continued to operate in Butte as a distinct corporate entity. In time, however, Amalgamated moved to consolidate operations as well. When Amalgamated acquired the Parrot in 1899, that company had already closed its Butte smelter and was making plans to build a new reduction works near Whitehall, just over the Continental Divide to the east. Those plans were halted when the Parrot moved into the Amalgamated fold and the Parrot began sending its ore to the ACM's smelters. By 1905, the Butte & Boston and the Colorado smelters had also closed, so none of the Amalgamated companies operated smelters at Butte. The Boston & Montana continued sending its ore to its Great Falls smelter, and the other companies sent their ores to Anaconda.[20]

Early in the twentieth century, the Butte mine yards assumed the form they would maintain through the gradual closure of underground operations at mid-century. The most prominent feature of a mineyard is the headframe, the trussed structure that stands over the mine's shaft. Early in the twentieth century the big mines replaced their wooden headframes with steel structures. Each mineyard also had a hoist house, the building that housed a steam-powered hoist engine. Cables ran from drums on the hoist engine, over the sheave wheels at the top of the headframe, and down the shaft. By winding a cable onto a drum, a hoisting engineer could haul tons of ore from the mine workings to the surface in vessels called skips. Letting the cable out from the drum, the hoisting engineer could lower a skip down the shaft for another load of ore. Surface crews could also remove the skips from the ends of the cables and replace them with cages for hoisting miners into or out of the mine. Other ancillary buildings in a mineyard often included a carpenter shop, compressor house, machine shop, and change house or "dry."[21]

Corporate consolidation continued through 1910. First, Amalgamated finally eliminated the troublesome F. Augustus Heinze from the copper scene in 1906, when he agreed to sell his MOP smelter and his several copper mines to the Red Metal Mining Company, a new company friendly to Amalgamated. Red Metal

[20] Malone, *Battle for Butte*, 131-140.

[21] Shovers, et al, *Butte and Anaconda Revisited*, 17-30.

continued to operated Heinze's mines and the MOP smelter until 1910, when the next major step in consolidation occurred. Amalgamated had all of its operating subsidiaries transfer title of their properties to the ACM, which became Amalgamated's sole operating subsidiary in Butte. Red Metal also transferred its properties to the ACM, which closed the MOP smelter, sending all the ores from Heinze's former mines to the Washoe Reduction Works. That same year, Amalgamated also negotiated the purchase of all of W.A. Clark's copper properties by the ACM, which then closed the Butte Reduction Works and began sending ore from Clark's copper mines to the Washoe.[22]

The 1910 consolidation of operations also signaled changes in the mines, as the ACM began to integrate them into a single industrial system. At the same time, the ACM's sister company, Montana Power Company (also based in Butte), was consolidating several of the largest hydroelectric utilities in the state. Montana Power's most extensive hydroelectric generating potential was along the Missouri River, especially at Great Falls. High-voltage transmission lines crossed the mountains from various generating stations to Butte and Anaconda (some of those c1910 transmission towers are still in service in and around Butte and Anaconda) in order to supply the ACM's expanding industrial operation with energy.[23]

With consolidation, one of the first functions to electrify was hoisting at the mines, but it did not happen directly, with the installation of electric-powered hoist engines. Having two or more hoisting engines start hoisting a load of ore simultaneously would cause violent peaks in demand—fluctuations, in that period, which control technologies at distant hydroelectric generating stations could not yet accommodate. Instead, the ACM installed a giant central compressor plant on the Butte hill near the High Ore mine, east of the Mountain Consolidated. The compressors in the plant could run continuously, filling receivers with compressed air. Steel pipes extended from the central compressor plant across the Butte hill to the several mine yards to drive hoist engines as well as the rock drills used by miners down in the drifts and stopes. This meant that the ACM merely had to modify, not replace, the existing steam-powered hoist engines that already existed at the mines, so that they could be driven by compressed air instead of steam.[24]

Eventually, control technologies improved so that Montana Power's hydroelectric generating system could adjust to the violent fluctuations in demand caused by electric hoists, and the ACM began to install them at the mines. The Anselmo Mine has the most intact mineyard in Butte, and its hoist house features an electric hoist engine. Nevertheless, the large steel pipe that conveyed compressed air to the Anselmo for the drills is also still present, as is a receiver tank near the dry. Several other mineyards in Butte also have electric hoists still in place, while two mineyards, the Original and the Steward (both former Clark mines) still have their steam hoist engines, converted to compressed air of course.

The corporate consolidation was completed in 1915, when Amalgamated transferred all of its assets to the ACM (this included several companies that had metallurgical works in other parts of the United States). Then Amalgamated was dissolved as a corporate entity, leaving Anaconda as the corporate giant that dominated the copper industry in Butte and

[22] R. Ernest Richter, "The Amalgamated Copper Company: A Closed Chapter in Corporate Finance," *The Quarterly Journal of Economics* 30 (1916): 387-407.

[23] Cecil H. Kirk, *A History of the Montana Power Company* (Pleasant Hill, OR: Donn R. Kirk, 2008), 221-227; Quivik, "Early Steel Transmission Towers and Energy for Montana's Copper Industry," *Montana: The Magazine of Western History* 38 (Autumn 1988): 67-69.

[24] Bruno Nordberg, "The Compressed Air System of the A.C.M., Butte, Montana," *Transactions of the American Institute of Mining Engineers* 46 (1914): 826-888.

Anaconda, dominated politics in Montana, and was the fifth largest industrial corporation in the world.[25] This corporate consolidation had reverberations in Butte, including in the relationship between labor and management. The Butte Miners Union (local #1 of the Western Federation of Miners) was one of the largest and most influential locals in the country, and it had thrived in part because there were several companies operating in Butte who were competing for scarce labor. In 1912, however, the ACM ceased recognizing the union as the miners' representative and instituted instead a "rustling card" system, under which each miner had to present an ACM-issued rustling card at any mine where he wished to work. If the company thought an individual was trying to organize for the union or was otherwise undesirable, the company could withhold the rustling card. This led to a split in the union, culminating in the dynamiting of the Miners Union Hall in June 1914 by radical elements of the union membership. The stone north wall of the demolished union hall survives northeast of the Butte-Silver Bow Public Archives. The Butte mines remained an open shop until the 1930s, when the miners were able once again to gain recognition for their union by the ACM.[26]

Butte's peak in copper production occurred during World War I, which is also believed to have been Butte's population peak. The nation's copper market slumped badly after the war, and so did Butte's population, as many miners moved elsewhere in search of employment. That exodus notwithstanding, Butte recorded its highest official census in 1920, when official government enumerators found 60,313 people living in the Mining City. Butte's population has been in steady decline ever since.

Butte remained a city dominated by underground mining until 1955, when The Anaconda Company initiated its transition from relatively high-cost selective mining conducted underground to relatively low-cost bulk surface mining in the form of the Berkeley Pit, which has had profound impact on the community's landscape, not simply for placing a huge hole in the middle of it.[27] As the Pit expanded, it subsumed several neighborhoods, like Meaderville and Butte's East Side, and other important built environments, like most of the eastern slope of the Butte hill, where many of the camp's most productive underground mines had been located. And the entire upper basin of Silver Bow Creek is now filled with overburden and tailings, materials that once occupied the space that is now the hole in the ground. As the Pit expanded westward toward the central business district (CBD) in Historic Uptown Butte, The Anaconda Company continued purchasing property and demolishing structures in order to maintain a buffer between the Pit's operations and the occupied portions of the city. Then in the early 1970s the company proposed that the city relocate its CBD, hiring the Rouse Corporation (developer of Columbia, Maryland and other planned communities) to select the best location on the Flat for a new CBD. Much to everyone's surprise, however, the Butte City Council voted in 1976 not to go along with the company's plans. Prior to 1976, the business district was slowly deteriorating, as most everyone assumed that it would share the same fate as Meaderville. Since 1977, it has been the official policy of local government to try to revitalize the historic CBD, although other

[25] Richter, "The Amalgamated Copper Company," 387-407; Christopher Schmitz, "The World's Largest Industrial Companies in 1912," *Business History* 37 (1995): 85-96.

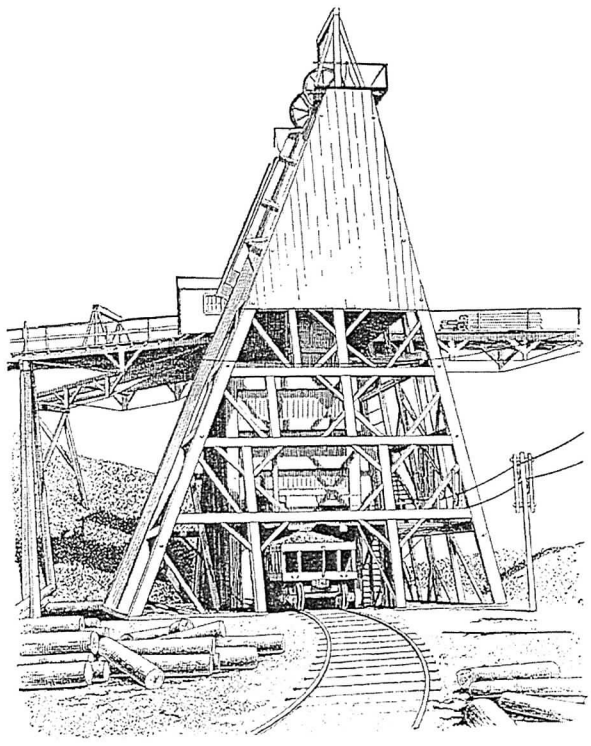
[26] Jerry Calvert, *The Gibraltar of Unionism: Socialism and Labor in Butte, Montana, 1895-1920* (Helena: Montana Historical Society Press, 1988), 71-91; Janet Ore, "Labor and the New Deal in Butte, Montana: The International Union of Mine, Mill and Smelter Workers' Strike of 1934," unpublished master's thesis, Washington State University, 1987.

[27] Robert Corbett, "The Changing Face of Mining in Butte," *The Speculator: A Journal of Butte and Southwest Montana History* 1 (Summer 1984): 20-25; Timothy J. LeCain, "Butte's Berkeley Pit and the American Culture of Consumption," *Montana: The Magazine of Western History* 56 (Winter 2006): 5-17.

forces, like sprawl, strip development, and big box stores on the Flat have made the task difficult (as they have in communities throughout the nation). Meanwhile, by the late 1970s, the Berkeley Pit had grown so big (1,800 feet deep) that costs of operating trucks to haul ore out of the bottom had grown excessive, so in 1979 the company started developing a different ore body in the East Continental Pit, east of the Berkeley Pit. Montana Resources now operates the East Continental Pit.

The last important mining-related impact on the landscapes of Butte and Anaconda stems from Superfund, the nationwide program to remediate hazardous materials left at old industrial sites. The Clark Fork Superfund site embraces Butte, Anaconda, and the Clark Fork River all the way downstream to the Milltown Dam, just above Missoula. It is the largest Superfund site—measured in geographical area—in the nation. Under orders from the Environmental Protection Agency, ARCO has conducted remediation in and around Butte that is nearly as monumental as that conducted around Anaconda. The remains of tailings deposits along Silver Bow Creek have been removed and hauled to the Opportunity Ponds near Anaconda. Vast areas of the Butte hill that were once ground devoid of vegetation now sport a thin layer of topsoil and drought-resistant grasses. Mine dumps that punctuated the Butte hill have been removed. An early engineering study for ARCO recommended that the headframes should be removed as well, but the community convinced the company otherwise.

Butte and Anaconda retain rich collections of their architectural heritage—domestic, commercial, religious, and institutional—and that architectural heritage is intermingled with an industrial landscape in which the earth's surface has been manipulated by human beings in a monumental way. Appreciators of the architectural heritage of Butte and Anaconda can never—quite literally—lose sight of that industrial landscape.



Butte, the Gibraltar of American Labor: An Overview of Butte Labor History, 1878 – 2008

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In August of 1885, the *West Shore*, a Pacific coast promotional magazine, touted Butte as the "largest, busiest, and richest mining camp in the world today." Statistics for world mineral production in 1887 verified these claims: Butte copper production topped Michigan's mines, making the Butte mines the largest producers of copper in the world. Between 1880 and 1973 the Butte mines produced over 30 million pounds of metals, predominantly copper (20 million pounds), silver, zinc, and manganese. The promise of mineral wealth and high wages attracted thousands of Irish and Cornish immigrants, as well as hardrock mining veterans of camps in Michigan and Nevada.[1]

Unlike the mining camps in Idaho, Colorado, and Arizona, relations between the miners and mine owners remained relatively tranquil in Butte during the 19th century, due in large part to the local influence of mine owners, Marcus Daly and William Andrews Clark. Butte's first strike occurred in June 1878 when miners walked off the job after the Walker Bros. at the Alice Mine and A.J. Davis at the Lexington Mine cut wages for unskilled underground miners from $3.50 to $3.00 a day. The success of these organized miners resulted in 300 men joining the Butte Workingmen's Union within two weeks. By 1885 Butte miners formed the largest group of organized miners in the West with 1,800 members. One year later Butte miners and other workers created the Silver Bow Trades and Labor Assembly to represent their interests.[2]

During these early years of silver and then copper mining, labor actions in Butte were rare, due in part to a level of trust engendered by Marcus Daly, F. Augustus Heinze, and William Clark with their workers, and to the high wages paid Butte miners. Marcus Daly and his business partner in the Anaconda mine, George Hearst, both veteran miners who worked their way up through the ranks, tended to empathize with the labor force. That tran-

[1] McClernan, Henry, "Sixty Million Years of History: The Formation of Butte Copper," *The Speculator* (Vol. 1, No. 2, Summer 1984, Butte Historical Society), p. 16-17.

[2] Malone, Michael, *The Battle for Butte: Mining and Politics on the Northern Frontier, 1864-1906*, University of Washington Press, Seattle, 1981, p. 76.

quility ended abruptly with the death of Marcus Daly and the sale of his properties to Amalgamated Copper and Standard Oil interests in 1899.[3]

By the 1890s the success of Butte's organized miners attracted the attention of hardrock miners throughout the West, and they gathered in Butte in May of 1893 to create the Western Federation of Miners, one of the nation's most radical unions. During its infancy labor relations in Butte remained tranquil, while violence and strife erupted in Idaho's Coeur d'Alene mines and in Colorado. Several factors maintained the peace in Butte: high wages and the predominance of Irish in Butte union leadership, mine ownership, and local political office.[4]

By 1900 Butte led the nation in per capita income, averaging $1,000 a year compared to railroad workers at $400, and surpassing steelworkers in Pittsburgh and industrial trades in the Midwest. Butte miners made $3.50 per day for an eight-hour shift, while contract miners could also earn bonuses determined by the amount of rock moved in a shift, twice the industrial wage anywhere in America. Served by four transcontinental railroads, Butte quickly became a mecca for immigrants, especially those from Ireland. By the beginning of the 20th century Butte constituted the most Irish city in America per capita, and during this time 80 percent of the union officers were Irish. Anaconda closed its mines for Miners' Union Day (June 13th), and three Irish holidays: Robert Emmet's birthday, Irish Societies' Picnic Day, and St. Patrick's Day. The first four presidents of Anaconda (Amalgamated) were of Irish descent: Marcus Daly, William Scallon, John D. Ryan, and Cornelius F. Kelly. The company awarded those who supported the company with gifts, good jobs underground, and political appointments. During the 1890s the Irish dominated the Butte Miners' Union, and represented the status quo when compared to the Finnish miners, who challenged management at every turn.[5]

By the turn-of-the-century Butte had achieved national recognition as the "Gibraltar of Unionism." Practically all working people in Butte claimed a union card, from musicians to stage hands to brewers to carpenters to newsboys to waitresses. In fact, in 1890 Butte's working women organized cooks, maids, seamstresses, and cashiers into the Women's Protective Union. No other town in America could claim a more organized and better paid labor force. What prompted Butte's overwhelming allegiance to unions? Certainly the boom and bust nature of the mining economy was a factor, but perhaps more importantly was the danger of the work. Silver Bow County mortuary records for 1906-07 illuminate the dangers inherent in living and working in a mining town: Butte's death rate from respiratory disease was twice the national average, making Butte more dangerous than New York City, Gary, Indiana, or Bethlehem, Pennsylvania. A 1912 investigation by the Silver Bow Co. Health Board revealed appalling conditions in the Butte underground and in the neighborhoods adjacent to the mines. Between 1910 and 1913, 162 men died in Anaconda Co. mines, another 5,200 suffered injuries, making Butte mining more dangerous than military combat, and more dangerous than any other mining district in the world including South Africa. The daily Butte newspapers re-

[3] Malone, p. 77-78.

[4] Hyde, Charles, *Copper for America: The U.S. Copper Industry from Colonial Times to the 1990s* (University of Arizona Press, Tucson, 1998), p. 105-106; Malone, p. 78.

[5] Emmons, David, *The Butte Irish: Class and Ethnicity in an American Mining Town, 1875-1925*, (University of Illinois Press, Urbana, 1989), p. 23-24; Hyde, p. 107-108.

flected the carnage, with graphic descriptions of hoisting accidents, underground fires, and falls of rock, but the more pernicious killers silicosis and tuberculosis remained hidden from the headlines. In 1906 almost three times the number of men that died in mine accidents died of respiratory disease. In neighborhoods dominated by miners, such as the Irish Catholic parish of St. Lawrence O'Toole, households headed by widows constituted one third of the parish households. Although underground mining has always been dangerous, it became deadlier in Butte as the volume of ore and number of miners multiplied in the first two decades of the 20th century.[6]

Certainly by the second decade of the 20th century Butte represented the most urban place in Montana, the largest population center between Spokane and Minneapolis and Salt Lake City to the south. By 1916 the population reached about 90,000; the city touted its Sutton's Broadway Theater, the largest in the state, a seven-story bank designed by Minneapolis architect, Cass Gilbert, and a commercial district featuring hundreds of brick stores and shops. Novelist Gertrude Atherton described Butte accordingly: "Her streets, her fine shops, her hotels, her great office buildings, are always swarming and animated...She has the jubilant expression of one who coins the very air, the thin, sparkling, nervous air, into shining dollars..." A very different view of the city was provided by a radical trade unionist, J.A. Stromquist, who visited Butte in 1908: "just about as dirty and disagreeable a place as the average one-horse mining camp. There are some buildings of skyscraper dimensions, but the average wage slave's home is a miserable, dingy, dirty board shack... Excepting a half dozen streets in the business center, there are no sewers anyswhere and everyone throws their slops, garbage, or waste of any kind out of the front of, or behind the houses." That view of miners' living conditions was echoed in the 1912 report of the Silver Bow County Board of Health. As the Butte mines extended their shafts and the world demand for copper increased, working conditions deteriorated and a battle for the heart of the Butte Miners' Union emerged.[7]

Between 1900 and 1906 a battle waged among the Butte "Copper Kings" for control of the district's rich mineral wealth. Prior to his death Marcus Daly sold his Anaconda properties to Henry Rogers of Standard Oil who created Amalgamated Copper Co. Daly's business and political rival William Andrews Clark waged war against Amalgamated in the press and on the ground. A third mine owner, F. Augustus Heinze, battled Amalgamated in the local courts using the apex law (see p. 34) to challenge claims technically belonging to Amalgamated. In November of 1903 Amalgamated called Heinze's bluff and shut down all mining and logging operations in Montana, throwing ten of thousands out of work with winter approaching. Heinze responded by appearing before an angry crowd of over 10,000 miners in front of the Silver Bow County courthouse to plead his case to portray Amalgamated as the bully: "If they crush me today, they will crush you tomorrow. They will cut your wages and raise the tariff in the company stores on every bite you eat and rag you wear. They will force you to dwell in Standard Oil houses while you live, and they will bury you in Standard Oil coffins when you die." Heinze won over the miners, but Amalgamated dismissed Heinze's offer for a settlement and went directly to Governor Toole to call a special session of the Montana Legislature to hear a Fair Trials bill, allowing for removal of biased judges. The Legislature acceded to Amalgamated's demands, drawing a

[6] Calvert, Jerry, *The Gibraltar: Socialism and Labor in Butte, Montana, 1895-1920*, (Montana Historical Society Press, Helena, 1988), p. 4; Emmons, p. 71-74.

[7] Calvert, p. 4-5; Emmons, p. 72.

scathing critique of the Montana political process from observers across the nation, labeling the Montana government a servant of corporate capitalism.[8]

Heinze continued the battle with dynamite in the Butte underground using the Apex law to remove tons of ore from Amalgamated mines into his adjacent claims. At the same time Heinze's political fortunes waned, angering both the Democrats and Republicans, leading to a defeat of all his allies in the election of 1904, including his local judges Clancy and Harney. Finally in 1906 Heinze sold out his major Butte mines to Amalgamated for a reported $12 million. By 1910 Amalgamated had consolidated most of the significant mining properties on the Butte hill, purchasing William A. Clark's mines, as well as those of the Boston & Montana Co. and the Butte & Boston holdings. Under the direction of John D. Ryan, Amalgamated and later the Anaconda Copper Mining Co., became a vertically integrated corporation, controlling the minerals, energy in the form of coal and ties to electrical energy, timber, and mineral fabrication. Consolidation meant greater efficiencies in mining, hoisting, and mineral processing, but it also challenged the balance of power once held by organized labor.[9]

In 1905 leaders of the Western Federation gathered in Chicago to form the Industrial Workers of the World (IWW), aimed at gathering all industrial workers into "one big union." By 1906-07 rising inflation led to demands from the Butte Miners' Union for a $.50/day raise, which Ryan countered with a $.25/day offer, accepted by the more conservative union leadership and denounced by the rank and file. Divisions within the union came to a head in 1912 when progressives elected a member of the Socialist Party as president of the union and Anaconda fired 500 Socialist members, mostly Finnish immigrants. The progressives called for a strike to protest this action, but the conservative faction prevailed opposing a strike by a four to one margin. Mine operators further enraged union members late in 1912 by invoking a "rustling card" system of hiring, permitting the blacklisting of Socialists and IWW members. This event marked the beginning of a fissure within organized labor in Butte that would grow into a major fracture by June 1914, leading to the dynamiting of the Miners' Union Hall.[10]

Politics in Butte during the period 1911-1914 precipitated further tensions in organized labor. In April 1911 municipal elections in Butte ushered in a Socialist government, led by Mayor Lewis Duncan, a Unitarian minister, and a majority of seats on the Butte City Council. A rift between the Socialists and the Wobblies (IWW) grew under the Duncan administration and nationally; a factionalism that neither entity could afford when pitted against



Fig. 1. The Butte Miners' Union Hall on North Main Street, destroyed during an internal conflict within the union in June 1914. Courtesy Montana Historical Society photo archives.

[8] Malone, p. 168-179.

[9] Malone, p. 204-207; Shovers, Brian, Mark Fiege, Dale Martin, and Fred Quivik, Butte & Anaconda Revisited: An Overview of Early-day Mining and Smelting in Montana, (Montana Bureau of Mines & Geology, Butte, 1991) p. 9-10.

[10] Malone, p. 208-09; Hyde, p. 108.

the Anaconda Copper Mining Co. with its legions of legal expertise and its virtual control of Montana's daily newspapers. Ultimately, both the Butte Socialists and the Butte Miners' Union succumbed.[11]

Factionalism came to a head in the summer of 1914 when disgruntled union members disrupted the annual Miners' Union Day parade and sacked the union hall. On June 22nd they formed a rival union called the Butte Mine Workers Union and the next day they destroyed the Miners' Union hall. In late August someone dynamited the pay office at the Parrot Mine, prompting Governor Stewart to declare martial law and send National Guard troops into Butte, which in turn led to the impeachment of Mayor Duncan for failing to protect private property. Anaconda, recognizing the vulnerability of the divided union, declared an open shop, dealing a mortal blow to organized labor in Butte.[12]



Fig. 2. The Carpenters' Union Hall, 156 West Granite Street, constructed in 1906 directly across from the Silver Bow County Courthouse. Photo by Brian Shovers.

Between 1915 and 1917 the war in Europe created an extraordinary demand for copper and mining flourished in Butte. The price of copper rose from $.13 per pound in late 1915 to almost $.30 per pound in early 1917 and wages for the underground miner rose from $3.50 per day to $4.75 per day, but at the same time the cost of living had gone up substantially.[13]

By 1917, 14,000 men labored in the extensive world of tunnels, stopes, and shafts beneath the streets of Butte, extracting over 300 million pounds of copper annually. Below ground an elaborate world of work, with its own peculiar language, culture, and mores emerged. Technologies advanced since Daly's early days in Butte allowed the shafts to extend a mile beneath the surface, leading to a hotter and dustier work environment. Experienced Irish and Cornish miners who moved up into management were replaced by novice miners from southern Europe, and this coupled with a frenzied demand "to get out the rock," led to a more dangerous work environment. All of these factors conspired on June 8, 1917, when a carbide lamp ignited some oily electrical cable in the Granite Mountain shaft of the Speculator Mine, trapping and asphyxiating 168 men. To this day it still constitutes the deadliest hardrock mine disaster in American history. Ironically, the North Butte Mining Co. was installing a sprinkler system in the shaft of the Granite Mountain when the fire erupted.[14]

[11] Calvert, p. 40-41, 50-56.

[12] Hyde, p. 108-09; Calvert, p. 87-88.

[13] Calvert, p. 103.

[14] Shovers, Brian, "The Richest Hill on Earth: Treasures Beneath Butte," unpublished PowerPoint, 2007; Punke, p. 1-2.

The reaction of the miners to this catastrophe was spontaneous; within days of the fire thousands of miners walked off the job, demanding a pay increase to $6/day, enforcement of safety regulations, and recognition of the new Metal Mine Workers Union. The company's response was consistent with a new corporate ethos which associated union strikes with sedition and anti-patriotism surrounding the war effort. The rhetoric escalated with the arrival of IWW organizer Frank Little on July 20th when he declared the IWW philosophy through a newsletter: "An injury to one is an injury to all! Force the bosses off your backs, put them to work down in the hole with the producers; hand them their muck sticks and make them earn a living for a change." The *Anaconda Standard* published the Company retort in an editorial: "The IWW has arrayed itself in open rebellion to our country and government…The leaders, by their acts and utterances, have placed themselves outside consideration as American citizens…As enemies of this country they should be given the consideration and treatment to which enemies are entitled and no more."[15]

In the early morning of August 1st six men drove up to Frank Little's boarding house, demanded his room number, and dragged him down the stairs to a waiting automobile. Then they dragged him behind the car for several miles to the Milwaukee Road trestle on the Flats where they hanged him. The placard around his neck read 3-7-77, the familiar warning left by the vigilantes of Virginia City in the 1860s. No one was ever prosecuted for the murder of Frank Little, even though the IWW suspected thugs in the employ of the Anaconda Co. Sixty-eight hundred men, women, and children followed Little's coffin to the Mountain View Cemetery, and the general strike continued.[16]

Labor unrest persisted in Butte for the next three years, culminating on April 21, 1920, with the gunning down of striking picketers by Company gunmen along the Anaconda Road. Throughout 1918-19 the IWW remained active in Butte, even in the face of convictions of national IWW organizers for violation of the Espionage Act. Periodic labor stoppages continued for the next year in Butte, precipitated by a weakening demand for copper with the end of World War I. Layoffs, shrinking wages, and continued attacks by the Company and federal government on workers' rights to organize followed. By February 1919, 8,000 Butte miners hit the picket line protesting wage cuts and violence associated with the presence of federal troops in Butte. Another strike, called on April 16, 1920, led to mass picketing on the Anaconda road leading to the major mines on the Butte hill. Impatient about the arrival of federal troops, Roy Alley, secretary to John D. Ryan of Anaconda,



Fig. 3. Home of the Mine, Mill, and Smeltermen's Union after 1934; originally designed by Link & Haire as the Silver Bow Club in 1906 to house a social club for Butte's upper class gentlemen. Photo by Brian Shovers. 125 West Granite Street (see also p. 126).

[15] Calvert, p. 108; Michael Punke, Fire and Brimstone: The North Butte Mining Disaster of 1917, Hyperion, NY., 2006, p. 174.

[16] Calvert, p. 108-09.

hired company gunmen to break up the picketing and reopen the mines. The conflict came to a head on April 21st with the wounding of sixteen picketers and the death of one Tom Manning at the hands of company gunmen. On May 13th the IWW officially called off the strike, its power broken in Butte, and the Company effectively blacklisted all IWW members using the "rustling card" system. Labor conflicts during the War effectively destroyed the miners' union in Butte until workers regained the closed shop through a successful strike in 1934 and the creation of the International Union of Mine, Mill, and Smelter Workers (Mine-Mill Union).[17]

The rebuilding of the miners' union in Butte can be linked directly to the National Labor Relations Act passed during Franklin Roosevelt's first term in 1933. In July of 1933 a rally at the Fox Theater in Butte recruited 4,500 new members to the moribund International Union of Mine, Mill, and Smelter Workers. In May 1934 negotiations broke off between the Anaconda Company and Mine-Mill Union members, causing the walkout of over 6,500 miners and craft union members. Four months later the Mine-Mill Union had a new contract; recognizing the union, granting a wage increase, and a 40 hour work week. For the first time in twenty years Butte regained the "closed shop."[18]

Three years later the Mine-Mill Union joined nine other national unions to form the Congress of Industrial Organizations (CIO). After World War II a decline in the importance of underground mining, coupled with the expulsion of the Mine-Mill Union from the CIO. for undue Communist influence over union leaders, further crippled the Butte union. For the next twenty years a turf war divided union affiliation between the Mine Mill Union and the United States Steelworkers Union, until a 1967 merger between Mine Mill and the U.S. Steelworkers. The miners' union bargaining position diminished in the late 1940s with a decline in membership, and a series of devastating strikes occurring every few years beginning in 1946. Strikes occurred in 1954, 1959-60, and the longest strike in Butte's history lasted more than six months in 1967-68.[19]

A major change in mining technology that occurred with the birth of the Berkeley Pit in 1955 forever altered labor-management relations in Butte. Anaconda's reliance on underground mining technology and the emergence of open-pit copper mining in Arizona, Utah, and Nevada since 1910, eroded Anaconda's early dominance of world copper markets and finally union labor in Butte. Anaconda's purchase and development of large open-pit copper reserves in Chile at Chuquicamata in 1923 signaled this shift in mining technique, and Chile's dominance in the Anaconda portfolio from this time forward. Cheap labor in Chile and vast reserves there allowed the company to play its Chilean workforce against miners in Butte. As the Berkeley Pit expanded, so did Anaconda's local hegemony over the physical landscape of Butte. In the 1960s the Anaconda Company evicted hundreds of residents from the adjacent neighborhoods of Meaderville and McQueen to expand the pit, made possible by the fact that residents owned their houses but not the land beneath them. In 1976 the Anaconda Company, pressured by nationalization of all its Chilean copper mines in 1973, petitioned the local government to take all of uptown Butte adjacent to the Berkeley Pit to expand operations and relocate the town to the flats adjacent to Interstate 90. By a one-vote margin the Butte City Council rejected the plan at the last hour, forcing the Anaconda

[17] Calvert, p. 115-123.

[18] Malone, Michael, & Richard Roeder, *Montana: A History of Two Centuries*, (Seattle, Univ. of Washington Press, 1976), p. 251.

[19] Malone & Roeder, p. 252.

Company to sell to Atlantic Richfield Co. (ARCO) the following year to avoid bankruptcy.[20]

With the arrival of ARCO in 1977 organized labor anticipated a grim future. In the American copper industry at large over half of all jobs were lost to foreign competition between 1981 and 1984. In 1980 ARCO closed all of its smelting and refining operations in Montana (Anaconda and Great Falls), and three years later, on July 1, 1983, the curtain descended on all ARCO mine operations in Montana. After over a century of major industrial employment the "richest hill on earth" fell silent. The Berkeley Pit, once touted as the largest truck-operated pit mine in the nation, began filling with acid and mineral-rich water. However, three years later Dennis Washington, a Missoula highway contractor with no mining experience, purchased all the assets of the Anaconda Company, and resumed mining the Continental Pit east of the Berkeley with a workforce of 300 non-union workers. The new company, Montana Resources, Inc., received significant concessions from Butte and the state for purchasing the company such as tax benefits, as well as energy discounts from Montana Power Co. Between 1981 and 1987 the Butte economy would actually lose a total of 4,500 jobs, many linked directly or indirectly to mining. For the first time in over a century, non-union miners extracted the copper-molybdenum ore with massive shovels and hauled the low-grade ore in 200-ton trucks to the Weed Concentrator directly south of the Berkeley Pit.[21]

How the mighty have fallen: in 1917, 14,000 union miners toiled in the thousands of miles of underground tunnels and drifts beneath the Butte hill, and the Anaconda Copper Mining Co. led the nation and the world in mining and processing copper. For decades following, Butte miners enjoyed a good living, supporting a middle-class lifestyle and expanded opportunities for their children. ARCO will invest as much as $1 billion on environmental restoration in the Upper Clark Fork River drainage (Butte to Missoula) before their obligation is complete under Superfund. Like the former industrial meccas of Pittsburgh, Scranton, Cleveland, and Detroit, Butte is busy trying to remake itself for a 21st century economy, but organized labor is not a significant part of the equation.[22]

In 2008, eleven Butte labor unions claim a membership of approximately 3,000. None of the Butte copper miners are represented by a union; the largest union in Butte is the International Brotherhood of Electrical Workers Local #44 (983 members), followed by the Teamsters' Local #2 (665 members). The craft unions like the carpenters, cement masons, plumbers and pipefitters, painters, and machinists constitute a much smaller group, especially when measured against union membership during the first decade of the 20th century when almost all Butte working people, men and women, wore union pins. The decline in Butte union membership follows the national pattern, but in Butte population and per capita income have declined sharply in the last three decades as well. In 1969 Butte supported a population of 56,978; today that number has fallen to 31,967. Montana's per capita income ranked 12th in the nation in 1950; by 2004 Montana ranked 40th in the nation. The state's relative affluence at mid-century had a lot to do with jobs in Butte's mining industry and unionized railroad workers and lumber

[20] Hyde, p. 171-173; Janet Finn, "Intimate Strangers: The Interlocking Histories of Butte, Montana and Chuquicamata, Chile," *Montana, The Magazine of Western History* (Helena, MHS Press, Autumn 1998), Vol. 48, No. 3, p. 24-27, 34; Brian Shovers, "Remaking the Wide-Open Town: Butte At the End of the Twentieth Century," *Montana, the Magazine of Western History* (Helena, MHS Press, Autumn 1998), Vol. 48, No. 3, p. 43-47.

[21] *Butte & Anaconda Revisited*, p. 61; Shovers, "Remaking the Wide Open Town, p. 48.

[22] Shovers, p. 48-49.

mill workers throughout western Montana. In 1975 the mining industry in Butte accounted for 23 percent of the county's employment, but by 1987 that percentage had slipped to 4 percent.[23]

Today environmental cleanup competes with mining as Silver Bow County's major industry. In the last 20 years ARCO has spent over $263 million in Silver Bow County to compensate for over a century of soil and water contamination related to copper mining in Butte. This effort has included over $90 million for restoration activities, including rebuilding Silver Bow Creek and Butte's decrepit municipal water system. Although arriving at the number of employees hired to do this reclamation work proves elusive, the Silver Bow County planner, Jon Sesso, asserts that environmental cleanup remains a major facet of the Butte economy and has mitigated job losses in mining and at Montana Power in the 1990s. Butte service workers, local-state-federal employees, and those working in health care have replaced manufacturing workers, mimicking the national trend. In 2007 the Butte mining income constituted about 10 percent of the town's total economy, while income from government jobs (local, state, federal) and Montana Tech represented over 26 percent, and trade, services, and health care salaries constituted about 35 percent. The Butte local government continues to work at attracting new industry and businesses to replace those lost in mining and utilities during the last thirty-three years; their success remains uncertain at the beginning of the 21st century.[24]



Fig. 4. The Socialist Hall constructed in the 1910s to accommodate activities of the Butte Socialists who dominated the local government from 1911 to 1914 during a brief partnership with Butte labor unions. 1957 Harrison Avenue. Photo by Brian Shovers.

[23] Telephone survey conducted by Brian Shovers, Dec. 15-17, 2008; Myonlinemaps.com (Montana); Montana Economic Study Research Report, Project No. Montana P-31, Univ. of Montana, Bureau of Business and Economic Research, 1970, Table 3.4; County Review Employment and Wages, Silver Bow Co., Montana Dept. of Labor & Industry, Oct. 1988, p. 9-12.

[24] Interview with Jon Sesso, Butte-Silver Bow Planning Dept., December 23, 2008; Univ. of Montana-Missoula, Bureau of Business and Economic Research, www.bber.umt.edu/econ/pdf/06silverbow.pdf; U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Silver Bow County, MT., 2007, http://www.bea.gov/regional/reis/CA25Nfn.cfm.

THE APEX LAW

The mining act of 1872 granted extralateral rights to owners of lode claims. Known as the Apex Law, this provision gave the owners of the surface outcrop (the apex) of a vein the right to follow and mine the vein wherever it led, even if its subsurface extension continued beneath other mining claims. In Butte this led to underground warfare, and extensive aboveground lawsuits that hinged on decisions regarding which vein was which. The rule was the basis for the distinction between surface rights and mineral (subsurface) rights in land ownership.

—Richard Gibson



Underground drilling in Butte. Photo by Russell Lee, Farm Security Administration, September 1942. LC-USW3- 008255-D

"Making Good": Socialist Government in Butte, 1911–1915

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> "The Socialist Party is distinguished from all other parties in this: it always takes its stand on the side of those who are compelled to work for a living, and it labors for their interest - economic, political and social...Political victory by the Socialist Party means working class success, and a step toward eventual economic freedom, the abolition of class rule, and the inauguration of industrial democracy."
>
> 1912 Platform of the Socialist Party of Montana

In April 1911 an extraordinary political event occurred in the mining metropolis of Butte, Montana. In a city whose only industry was mining, in a city dominated by one giant employer, the Anaconda Copper Mining Company, the most vocal and public enemies of that corporation and all that it stood for had just won the municipal election. Led by Lewis Duncan, the Socialist Party had won an easy victory over its Democratic and Republican opponents. Duncan was elected mayor and the Socialists elected a city treasurer, municipal judge and five aldermen. During the next four years the Socialists held the reins of municipal authority in the face of determined counterattacks by "The Company" and its economic and political allies. The purpose of this essay is to briefly examine the experience of Socialist government in Butte, its successes and ultimate failure, and in so doing, recreate a chapter in this community's colorful history that is all but forgotten today.[1]

Since the founding of a local branch of the party in Butte in 1899,[2] local Socialists had labored mightily to produce a political winner, running candidates in every municipal election since 1903. Until 1911, however, these efforts had produced meager results. During that period, only two Socialists had been elected to the city council. In 1910, the fortunes of the Socialist Party nationally and locally took a dramatic turn for the better. In that year Socialists were elected to office in 57 communities in 24 states. Most notably, Socialists captured control of the city of Milwaukee, Wisconsin, and in the fall, the leader of the Socialists there, Victor Berger, was elected to the U.S. House of Representatives.[3] The Milwaukee triumph energized Socialists everywhere and marked the beginning of the brief

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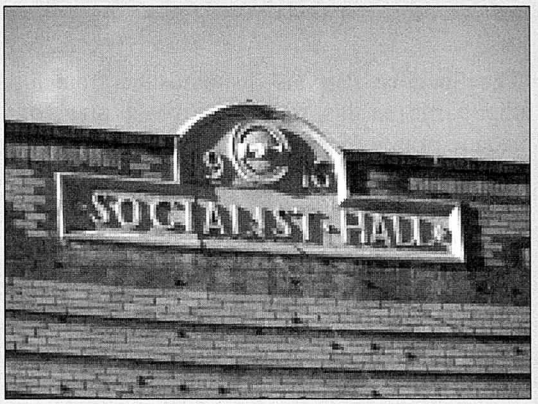
glory years for the party in American politics. By the end of 1912 the Socialist Party claimed 118,000 members nationwide. Approximately 1,200 Socialists held elective public office and the Socialist press claimed more than 300 daily, weekly and monthly English and foreign language publications. Of these the most well known was the weekly, Appeal to Reason, published in Girard, Kansas. The Appeal, with a weekly circulation of three-quarters of a million, was one of the largest newspapers of its type in the world at the time.[4] It had thousands of subscribers in Montana.

Consequently, the Socialist victory in Butte was not an isolated event, but part of a national trend that was fueled in part by public disgust with the corruption and inefficiency of government, and a public longing for "reform" in the nation's political institutions. The Socialists, who had long championed honest, efficient, and humane government, were by 1910 the beneficiaries of the public's resentment and its yearning for something better. [5]

But the success of the Socialists in Butte and elsewhere was also caused by a widespread public antipathy, especially among large sections of the working class, toward the emerging corporate capitalist order. In an era marked by extreme examples of the opulent wealth for the few and grinding poverty for the many, the Socialist program found many willing listeners and supporters. This program, articulated by Socialists at every level—in national, state, and local campaigns—was composed of two distinct and interrelated parts. The first was the elaboration of the party's ultimate revolutionary goal, the realization of what they called the "cooperative commonwealth." The second was a list of the reforms, the party's "immediate demands," which its candidates were pledged to work for if elected.[6]

SOCIALIST HALL

Outside the boundary of the National Historic Landmark District, but part of it, Butte's Socialist Hall is one of few socialist halls remaining in the United States. Erected in 1916 when the Socialist movement was strong in Butte, it was active for only a few years until Socialism fell out of favor by the early 1920s. During its brief time of service, the Industrial Workers of the World met here as well as at Finlander Hall on North Wyoming (present site of Capri Motel). Today a sporting goods shop occupies the first floor. Location: 1957 Harrison Avenue. Privately owned.



The ultimate goal of the party always appeared in the preamble of the party platform. For example, the 1914 platform of the Socialist Party of Montana declared: "We declare that longer endurance of the economic oppressions, class privileges, and political tyrannies of this present system is not possible, and we propose to end them all...We declare that the only relief from these unendurable conditions must come through Socialism, in which the social industries will be carried on for the common good and every worker will receive the full social value of the wealth his labor creates."[7] Following the preamble's enunciation of the party's revolutionary objectives, came the "immediate demands." Thus Montana's Socialists advocated such things as pub-

lic works jobs for the unemployed, strict enforcement of the state's eight-hour day law and the enactment of a workmen's compensation statute. The Socialists demanded that a "progressive tax" be levied against all "capitalist property," creation of public hospitals open to all regardless of ability to pay, and the general expansion of public educational opportunity for both children and working adults. They supported progressive political reforms like the initiative, referendum, and recall election, and called for the granting of women's suffrage and the abolition of all laws which denied women "economic and political equality." [8]

Socialists cautioned that the realization of the cooperative commonwealth was a distant goal, to be achieved gradually as the party gained greater and greater public support and political power. For them the achievement of the party's immediate demands, through the election of Socialists to public office, was the key to executing a socialist society. When Socialists were elected, the party reasoned, they would "make good" in public office, their record establishing the basis for further political advance. Having made good, the party could expect additional electoral support that would lead to Socialists' winning control of the government of states and eventually the Congress and the presidency of the United States.[9] Shortly after his election, mayor-elect Duncan predicted in a speech in Great Falls that:

> Once in the seat of political power...the working class will soon work out its methods, both economic and political, for reorganizing society on the basis of an industrial democracy in which every willing worker shall be assured, not only of [the] free opportunity to work at what he feels himself best fitted to do, but also assured that he will receive for his labor the full social value of his product. . . . For with the abolition of wage slavery and the private ownership of the necessities of human life, which alone make such slavery possible, man's complete economic freedom will have been won, and with it man's complete political freedom also. Then will come to pass the end for which the struggle of the ages has been carried on. Entirely free from all masters, man at last will have secured an environment in which to develop to the highest power of his individuality...That is the kind of world we unpoetic, scientific Socialists mean today. [10]

Thus by 1910, two general conditions—public demands for municipal reform and anticorporate sentiment—existed to make the Socialist Party a national movement. Alluding to their comrades in Wisconsin, Butte's Socialists said it was time to "Milwaukeeize" the mining city.[11] Several immediate factors made the dream possible. The local party had a dedicated leader in Lewis Duncan, a core of committed activists in the local party branch, and strong ties to the local labor movement. Most importantly, previous city administrations, both Democratic and Republican, had

GOVERNMENT

First settled in 1864, Butte City was organized in 1879 and elected Henry Jacobs its first mayor. Jacobs was a German Jewish immigrant who had fought for the South in the Civil War; his 1879 home still stands at the northwest corner of Granite and Montana Streets. With growing population, Silver Bow County, with Butte its seat, was carved from Deer Lodge County in 1881; Montana became a state eight years later. Multiple attempts to consolidate the city and county governments were successful in 1977, forming the city and county of Butte-Silver Bow. At that time the City Hall (24 E. Broadway St.) was vacated and the county court house (155 W. Granite St.) became the government center. Walkerville remained the only independent city within the county.

achieved a record so bereft of accomplishment that even their traditional supporters were alienated and disgusted. Butte city government had been inefficient, expensive, and corrupt.[12] Meanwhile, the Socialists promised reform and the enactment of laws for the betterment of the working class who constituted the vast majority of the city's registered voters. On April 3, 1911, Duncan and the Socialist Party won a smashing victory against the old parties. In addition to Duncan, the voters chose Dan Shovlin, a miner, as city treasurer, and Thomas Booher, also a miner, as city judge. Other Socialists elected to the city council were: Frank Curran (miner), Hugh McManus (shoemaker), Andrew Rissell (miner), Arthur Cox (miner), and Henry Davis (union business agent).[13]

In the wake of this stunning and unexpected victory by the Socialists, the daily press alleged and the Socialists readily admitted that perhaps one-quarter of their support had come from disgruntled middle-class Democrats and Republicans.[14] Also, the Socialists benefited from the lackluster campaigns waged by the Democrats and Republicans, and finally, because the Anaconda Company and its allies remained on the sidelines, perhaps acting from the mistaken belief that the Socialists could not possibly win.

But the victory was not complete. The five Socialist councilmen did not represent the majority Duncan would need to govern effectively and enact into law the party's reform platform. Duncan needed a working majority, which he did not achieve until April 1914. As a consequence, the Duncan administration was dogged from the very beginning by an entrenched and hostile city council majority that routinely voted down any proposed ordinances which smacked of Socialism or were opposed by powerful economic interests. Even so, the Socialist government at the end of its second year could point to a record of substantial accomplishment in improving the quality of public services. Due to stringent enforcement of the city health codes, the incidence of contagious disease declined dramatically; streetpaving and sidewalk construction, especially in working class neighborhoods, increased substantially; municipal corruption had ceased, the unions were implicitly promised that police would not be used to break strikes.[15] The voice of middle-class reform announced its approval in the National Municipal Review:

> Butte, like many other American cities, suffered from misgovernment and graft until the hope of betterment under the old parties was lost and the citizens elected the Socialist administration under Mayor Duncan. It is said that the new administration has made the city clean morally and physically. For the first time in the history of the city, the streets and alleys are clean and sanitary, and it has been shown that the infant mortality rate due to unclean conditions has almost been eliminated. Streets have been graded, traffic regulated, adequate police protection provided, city employees compelled to be efficient, and as a result of good, honest management all around, the city lifted itself out of bankruptcy to a position of good credit. [16]

Not only were non-socialist reformers pleased with the record of accomplishment, Socialists themselves pointed with pride to the Duncan administration. Frank Bohn, writing in the widely read International Socialist Review, observed: "In every matter which comes before the government of the city of Butte this question is asked: 'Will it benefit the working class?' And party policy is outlined and pursued with that alone in view." Bohn concluded that Butte's Socialists had achieved a "maximum of results" under the "backward

DIRECT ELECTION OF SENATORS

Montana was by no means the only state where the Constitutionally-mandated election of U.S. Senators by state legislators was a problem, both in terms of deadlocked votes and rampant intimidation and bribery. But the extraordinary Montana Senatorial election of 1899 certainly fueled the move toward direct popular election of Senators, adopted under the 17th Amendment in 1913. Butte Copper King W. A. Clark's bribes to state legislators reportedly ran into the hundreds of thousands of dollars. He was eventually elected, and reported to Congress in late 1899. The Senate planned to declare his election void because of the bribery scandal, but he resigned in May 1900 before that could happen. Back in Montana, he maneuvered the governor out of the state, whereupon his friend, the lieutenant governor, promptly appointed him to the Senate seat he had recently vacated. The Senate refused to seat him. He ran again, and was elected by the legislature for the term beginning March 1901, a term he served. It was in connection with this scandal that Mark Twain wrote of Clark, "He is said to have bought legislatures and judges as other men buy food and raiment. By his example he has so excused and so sweetened corruption that in Montana it no longer has an offensive smell." In his defense, Clark reputedly said, "I never bought a man who wasn't for sale."

form of government now obtaining in America."[17]

In the spring of 1913 Duncan and the other Socialist office-holders ran for reelection. The Montana Socialist declared: "Every citizen who is on speaking terms with the truth is compelled to admit that the Socialists have MADE GOOD in every particular affecting the welfare of the municipality and its people."[18] Hopeful of outpolling the Socialists, the Democrats and Republicans joined forces and fielded a united fusion ticket headed by Republican Sam Barker for mayor. The Butte Miner, a daily paper that was viciously hostile toward the Duncan administration, advised its readers: "If Butte is to be redeemed this spring from the menace of Socialism, it will be necessary for patriotic citizens of the community to drop their partisanship."[19] With the old parties united in one ticket, the election became a clearcut referendum on Socialist governance.

When the votes were counted, Duncan, Shovlin, and Booher easily coasted to victory. Also elected were six Socialist aldermen.[20] The Montana Socialist enthused that theirs was "the most significant victory that the Socialists had yet won in the United States; the first Socialist administration to succeed itself; the first that has been able to triumph against old party fusion."[21] In this, the party paper was right. One year earlier, Milwaukee's Socialists had been ousted by a fusion of the Democrats and Republicans. And in addition, Butte's Socialists had triumphed in the face of the open and public hostility toward the Anaconda Company and its economic and journalistic allies. They had won, and had done so because they were energetic, well-organized, and enjoyed substantial public support, especially from a large portion of Butte's working-class voters. In April 1911 Duncan had written a friend that the Socialist victory was going to produce "a clear class alignment in future political fights - organized labor with the Socialists on the one side and the Amalgamated [The Anaconda Company] with the old party machines on the other."[22]

To some degree Duncan's prediction had indeed come to pass. While "organized labor" had remained for the most part officially neutral in politics, it was clear that many union members belonged to Local Butte of the Socialist Party and that many more of them voted the Socialist ticket. The surviving membership roll for the Socialist Local Butte

MONTANA WOMEN IN POLITICS

Montana gave women the vote in 1914, six years before the 19th Amendment to the U.S. Constitution went into effect. In 1916, Montana's Jeannette Rankin (1880-1973) became the first woman elected to the United States Congress. Her campaign, as a Republican, was kicked off in Butte. A lifelong pacifist, she was the only person to vote against U.S. entry into both World Wars. As of 2009, she is the only woman to have represented Montana in Congress, although the state has elected a woman Governor (Butte's Judy Martz, 2001-2005).

Branch No.1 (English-speaking) show that almost three-quarters of the approximately 500 members were manual workers. Of these the largest contingent were miners, followed by skilled craftsmen and laborers. Similarly, most of the candidates fielded by the party were from the working class. [23]

The proletarian base for the party is also apparent in the distribution of electoral support it received. Among the city's eight wards the Socialists won majority support in five of them. In these five wards an average of 82.7 percent of the registered voters were manual workers; in the three remaining wards, all west of Main Street and never carried by any Socialist candidate, the percentage of working-class registrants ranged from 52.9 percent to 73.6 percent.[24] To be sure the data suggested clearly that the Socialists did not enjoy the undivided support of Butte's workers. Many continued to cast their ballots for the old parties and this was the source of some pain for the Socialists, who in 1914, bemoaned the fact that: "The greatest instrument of the mining companies is the sympathetic vote of the working man."[25] Even so, the Socialists could claim near majority support on election day. In 1913 Duncan received 3,867 votes, 54 percent of the ballots cast. The vast bulk of this support came from Butte's working-class voters in the northeast section of the city east of Main Street and in "The Flats" south of uptown Butte.

In the 1913 municipal election, it was clear that enough working-class voters were sufficiently satisfied with the quality of Socialist governance to return Duncan and the others to office. Unfortunately, this was not the case with a minority of militants within the party. In the aftermath of the 1913 triumph over fusion, a nasty faction fight erupted within the local Socialist party between those who were happy with the modest accomplishments of the Duncan administration and those who were not. Many of those who were not satisfied were also members of another revolutionary organization, the Industrial Workers of the World (the I.WW.). Wobblies, as I.WW. members were often called, disdained "political action" for the most part; they believed that electoral politics was clearly secondary to "direct action" by the workers themselves. Though often imprecise as to what they meant by "direct action," Wobblies nonetheless counseled that capitalism could only be overthrown by workers directly seizing the means of production through a revolutionary general strike.[26] Those who were motivated by such insurrectionary fantasies ceased to tolerate the slow and gradual pace of change achieved by Socialist government in Butte, and they increasingly voiced their impatience in meetings of the party local. Tired of what Duncan characterized as the "wranglings" and "heckling" of the dissidents, Duncan and his supporters expelled the rebels from the local party by vote in June 1913.[27] Subsequently, the Montana Socialist chastised "impatient comrades" in the following editorial about the city's successful efforts in improving public health: "If a Socialist city administration can cut down your doctor bills, save the lives of your children, and improve your health, isn't

that INCREASING YOUR PAY? Isn't that direct action? Isn't that getting something now?" [28]

In April 1914 the Duncan administration finally achieved the city council majority it needed to completely implement the party's campaign pledges. In this off-year election for half of the city council (eight aldermen) the Socialists elected three of their candidates.[29] The new council would be composed of nine Socialists and seven Democrats. But before the city council could get down to business, a violent internal revolt against the allegedly corrupt and ineffective Butte Miners' Union seriously weakened labor unionism in Butte and contributed ultimately to the ouster of the Socialists from public office.

Duncan's actions amidst the violence in the streets of Butte were predictable. The Duncan administration was a self-proclaimed workers' government. As such it could not in good conscience order its police to shoot and kill angry miners in defense of physical property. It could not, as long as no violence issued, use its forces to prevent a union from or-ganizing. As one Socialist mayor in Illinois had put it, it was the responsibility of a Socialist government in time of labor strife to insure a "fair fight" and "preserve order as far as possible." This was what Duncan attempted to do. His actions had been "courageous" and "practical", argued the Socialist Party. [30]

Many voters apparently agreed with this assessment. In the November general elections, Duncan, running as candidate for the U.S. Congress, came in second in Silver Bow County, polling 3,810 votes, just 57 votes fewer than he had received in his successful bid for a second term as mayor in April 1913. It was a "vindication" of sorts, especially when we consider the fact that the Silver Bow

BURTON K. WHEELER

Wheeler grew up in Massachusetts, attending the public schools and working as a stenographer in Boston. He graduated from the University of Michigan law school in 1905. He initially headed for Seattle, Washington, but after getting off the train in Butte, Montana, and losing his belongings in a poker game, he settled there and began practicing law.

He became a Montana state legislator in 1910 where he gained a reputation as a champion of labor against the Anaconda Copper Mining Company which dominated the state. He then served as a United States Attorney where he most famously refused to hand down a single sedition indictment during World War I, especially significant as Montana was a large stronghold of the Industrial Workers of the World (IWW). In 1920 he ran for Governor of Montana as a candidate of the Non-Partisan League. The ticket included a multi-racial set of candidates, unusual for 1920, including an African-American and a Blackfoot Indian. Wheeler was defeated by Republican Joseph M. Dixon, but ran for the U.S. Senate two years later.

Wheeler won election to the United States Senate from Montana in 1922 with 55% of the vote over Republican Congressman Carl W. Riddick and served four terms, being reelected in the 1928, 1934 and 1940 elections. He broke with the Democratic Party in 1924 to run for vice-president of the United States on the Progressive Party ticket led by Robert La Follette, Sr. He returned to the Democratic Party after the election, which was not successful for the Progressives or the Democrats. Wheeler supported President Franklin D. Roosevelt's election, and many of his New Deal policies, but broke with him over his opposition to Roosevelt's court-packing schemes and also opposed much of Roosevelt's foreign policy before World War II.

Wheeler's Butte home (1908-23) at 1232 East Second Street is a separately listed National Historic Landmark, one of 25 in the state.

(Modified from Congressional biography)

County voters for the first time elected two Socialists, Leslie Bechtel and Alex Mackel, to the Montana Legislature.[31] Assessing the results in Butte the Montana Socialist commented:

> One and all the subsidized political sewers [the daily press] discharged their poisonous ordure and effluvia upon the timid and alarmed working class voters of the city and county. No story, no vicious and libelous caricature was too preposterous, nor any lying innuendo too vile for their uses. Every possible appeal to prejudice, ignorance, cupidity, jealousy, superstition and fear was made, and the most brazen falsehoods and vilification were thus scattered, broadcast with complete disregard for truth and reason. Especially effective was the veiled threat that Socialist success would mean the closing down of the mines.[32]

Given what had been said against them, the Socialists found the election results to be "remarkable."

The winter of 1914-1915 was a hard one in the mining city. Since early August several thousand miners had been laid off due to the low price of copper in the world market, temporarily brought on by the opening of the war in Europe. A miner described the situation in a letter to the International Socialist Review: "Union activity is at a standstill all along the line. The industrial conditions are positively the worst that Butte has ever experienced. Not one third of the usual quota of men are employed. Business failures are the order of the day. Suffering and want among the poor are great."[33]

The summer troubles had prevented the Socialist administration from dealing with the implementation of its program. Now in the winter the city government found itself with reduced revenues due to the poor economic conditions. As a consequence, some of the city's workers had to be laid off as well and the city government's intention to purchase the privately owned water works had to be put off.[34]

As time for the April 1915 municipal elections approached, the Socialists argued that they should be returned for another term because: "The Socialists are the first in Butte ever to have mastered the science of municipal government IN THE INTERESTS OF THE PEOPLE. They are prepared in the future to make more substantial progress in the direction of good government, clean government, and efficient government than the people of Butte have ever believed possible."[35] The party once more stressed that it was the party of the workers, urging the workers to stand by it just as Duncan and the Socialist government had stood by them saying:

> Review the events of the past four years in this city. The Socialist Party has been in control of the city government. They have always stood by YOU. They have cleaned and improved the streets where YOU live. They have promoted public works which employed YOU...They have raised your wages. They have protected your pickets and banners against unfair employers. They have refused to shoot YOU down like dogs in the street, when the hired thugs of the masters provoked disorders and riots. For YOU a Socialist mayor was ousted from office...When you were blacklisted, Socialists protested this injustice against YOU.[36]

The Socialists' candidate for mayor was Clarence Smith. Smith was deputy mayor when Duncan was removed from office and had assumed the post of mayor upon Duncan's

ouster. Now in the spring of 1915, Smith and the other Socialist candidates faced a political atmosphere that was charged with tension and fear. This atmosphere was fueled by the daily press who repeatedly stressed the negative economic consequences of a Socialist victory. The Anaconda Standard, owned by the A.C.M. Company, advised its readers that: "If Socialist rule is continued, capital will continue to show reluctance to invest in Butte... for capital is wary of towns where property is destroyed, where lives are endangered and authorities show themselves unable or unwilling to suppress lawlessness."[37] In a similar vein the Butte Miner editorialized: "The doctrine of class hatred, discontent and despair has done much in the past to check the prosperity of this great mining center that assuredly every resident should be willing to speed along the dawn of a better day."[38]

The wild card in the election were the newly enfranchised women voters who had been granted suffrage via a statewide referendum in the November 1914 general election. The Socialists needed a substantial portion of the women's vote to win. They didn't get it. When the polls closed on April 5, the Socialists had been soundly whipped. Smith finished second with 3,698 votes. The winner was the Democrat Charles Lane with 6,681 votes; the Republican candidate, Arthur Ellingswood, garnered 2,714 votes.[39] The Socialists blamed their defeat on the women voters who, the Socialists alleged, had allowed themselves to be misled by the anti-socialist propaganda in the daily press.[40] Defiant in their defeat, the Socialists quoted a well known radical verse:

> Though cowards flinch and traitors sneer
> We'll keep the red flag flying here.[41]

But the crushing of the Socialists in the April 1915 election effectively marked the end of the party as a force to be reckoned with in Butte politics. Two years later Duncan ran again as the party's candidate for mayor, but he polled just 1,612 votes, only 16 percent of the total. It was their last race.[42]

During their four years of power in Butte, the Socialists were faced with many problems, including a hostile non-socialist city council majority, a fact that effectively prevented the administration from delivering on many of its pledges. Secondly, the party was deterred by internal bickering concerning the accomplishments of the Socialist administration. This factionalism did not help the party's public image. Most importantly, the Socialists had to contend with the unrelenting hostility of the A.C.M. Company and its journalistic allies.

Given the problems that Butte's Socialists faced, their record of achievement was nonetheless impressive. There is no doubt that the Socialist government between 1911 and 1915 substantially improved the quality of life in the mining city, especially in its working-class neighborhoods. Streets were paved, sidewalks were constructed, sanitation was improved, and the health codes were systematically and rigorously enforced. Equally important was city hall's protection of workers' rights when challenged by the mine owners. Duncan ultimately lost his job and the Socialists ultimately lost control of city government, but the presence of Socialists in city hall, though brief, demonstrated that the copper collar could be broken by the ballot in Butte.

Notes

This brief essay is in no way a comprehensive examination of Socialism in Butte. For the complete story of the rise and fall of the Socialist Party in Butte and the events which preceded and followed the administration of Lewis Duncan, see *The Gibraltar: Labor and Socialism in Butte, 1895-1920* (Calvert, 1987, Montana Historical Society Press).

[1] Forgotten also is the fact that Montana's Socialists were successful elsewhere. Socialist mayors were also elected in Anaconda (1903), Red Lodge (1906) and Missoula (1914).

[2] Helen Sanders, *A History of Montana*, Vol. 1 (Chicago: Lewis Publishing Co., 1913), p. 430.

[3] "Socialist Municipal Officeholders," *National Municipal Review*, 1 (July 1912), pp. 492-493, Victor Berger, "What is the Matter with Milwaukee," *Independent*, 68 (April 21, 1910), pp. 840-843.

[4] James Weinstein, *The Decline of Socialism in America, 1912-1925* (New York: Vintage Books, 1967), pp. 27, 84.

[5] See Robert Hoxie, "The Rising Tide of Socialism: A Study," *Journal of Political Economy*, 19 (October, 1911), pp. 609-631.

[6] Jessie Wallace Hughan, *American Socialism of the Present Day* (New York: John Lane Co., 1911), Chapters 11 and 12.

[7] "Platform of the Socialist Party of Montana - 1914," State and Local Files, *Socialist Party of America Papers*. The S.P.A. Papers are housed at the Perkins Library, Duke University.

[8] "Immediate demands" from the 1908 state platform of the Socialist Party of Montana. Printed in the *Montana News* (September 3, 1908). Published in Helena, the *Montana News* was the state's first Socialist newspaper.

[9] Carl D. Thompson, *Have the Socialists Made Good?* (Chicago: National Office of the Socialist Party, 1913), 4 pp., Pamphlet collection, Socialist Party of America Papers.

[10] *Great Falls Tribune* (April 10, 1911).

[11] *Anaconda Standard* (March 9, 1911).

[12] *Anaconda Standard* (March 31, 1911), *Daily Inter Mountain* (March 31, 1911).

[13] *Anaconda Standard* (April 4, 1911), *Butte Miner* (April 4, 1911). See also Jack Keister, "Why the Socialists Won in Butte," International Socialist Review, 11 (June, 1911), pp. 731-733.

[14] Lewis Duncan, "Questions About Butte," Folder 82, *Socialist Party of Montana Papers*. These documents are the property of the late Terry McGlynn of Butte. Copies are housed in the Montana Historical Society library, Helena. See also "The Victory in Butte," *The Coming Nation*, No. 33 (April 29, 1911), p. 10, and the *Butte Miner* (April 4, 1911).

[15] *Socialist Campaign Book: City Election, April 1,* 1912 (Butte: Socialist State Central Committee, 1912), 20 pp. See also Lewis Duncan, "Socialist Politics in Butte, Montana," *International Socialist Review*, 12 (November, 1911), pp. 287-291, and *Socialism and Government: Appeal Socialist Classics No.5* (Girard, Kansas: Appeal to Reason, 1916), pp. 59-61.

[16] "Butte Socialist Administration Commendable," *National Municipal Review*, 2 (January, 1913), p. 134.

[17] Frank Bohn, "The Butte Socialists," *International Socialist Review*, 13 (September, 1912), p. 263.

[18] *Montana Socialist* (April 6, 1913). Published in Butte, the *Montana Socialist* was a weekly newspaper. Its first number appeared in September, 1912.

[19] *Butte Miner* (March 6,1913).

[20] *Anaconda Standard* (April 8, 1913), *Butte Miner* (April 8, 1913), "Socialist Victory in Butte," *International Socialist Review*, 13 (May, 1913), p.829.

[21] *Montana Socialist* (April 13, 1913).

[22] Lewis Duncan to Thurston Brown (April 12, 1911), Folder 82, *Socialist Party of Montana Papers*.

[23] *Membership Record of Butte Local No.1*. This document is the property of the late Terry McGlynn.

[24] Data derived from the *Great Register of Butte City - 1913*. This and several other city voter registration books for the period are housed in the Butte-Silver Bow Public Archives.

[25] *Butte Socialist* (October 31, 1914). The *Butte Socialist* was a biweekly campaign newspaper for free distribution. Few copies of this newspaper, which ran from 1911-1915, are known to exist. For a detailed account who voted Socialist and who opposed them, see Chapter 6 in my book, *The Gibraltar*.

[26] By far the best history of the IWW is Melvyn Dubofsky, *We Shall Be All: A History of the Industrial Workers of the World* (Chicago: Quadrangle Books, 1969).

[27] Lewis Duncan, "The Troubles in Butte: Mayor Duncan's Statement," State and Local Files, *Socialist Party*

of America Papers, Montana Socialist (June 22, 1914). For a particularly critical examination of the disruptive role of the I.W.W. in the Socialist Party, see Frank Bohn, "Is the I.W.W. to Grow?" *International Socialist Review*, 12 (July, 1911), pp. 42-44.

[28] *Montana Socialist* (November 2, 1913). For other defenses of the revolutionary aspects of "political action" in Butte, see the editorials on city sanitation and city finances in the *Montana Socialist* (August 3, November 2, 1913).

[29] *Anaconda Standard* (April 7, 1914), *Butte Miner* (April 7, 1914), *Montana Socialist* (April 12, 19, 1914).

[30] M.E. Kirkpatrick, "What Should a Socialist Administration Do in Time of Strike?" *Party Builder*, No. 51 (October 25, 1913), Montana Socialist (September 26, 1914). The *Party Builder* was a monthly membership bulletin published by the National Office of the Socialist Party of America.

[31] *Anaconda Standard* (November 7, 1914), Official Returns for Silver Bow County for November 3, 1914, Office of the Secretary of State, Helena.

[32] *Montana Socialist* (November 7, 1914).

[33] "Letter from a Butte Miner," *International Socialist Review*, 15 (January, 1915), pp. 436, 438.

[34] *Anaconda Standard* (December 20, 1914, January 11, 21, 28, February 4,8,1915), Butte City Council Record, Vol. 16, 278-281, 295, 297, 315, 321. The minutes of the city council are housed in the Butte-Silver Bow Public Archives.

[35] *Montana Socialist* (March 27, 1915).

[36] *Montana Socialist* (March 27, 1915).

[37] *Anaconda Standard* (March 25, 1915).

[38] *Butte Miner* (March 31,1915).

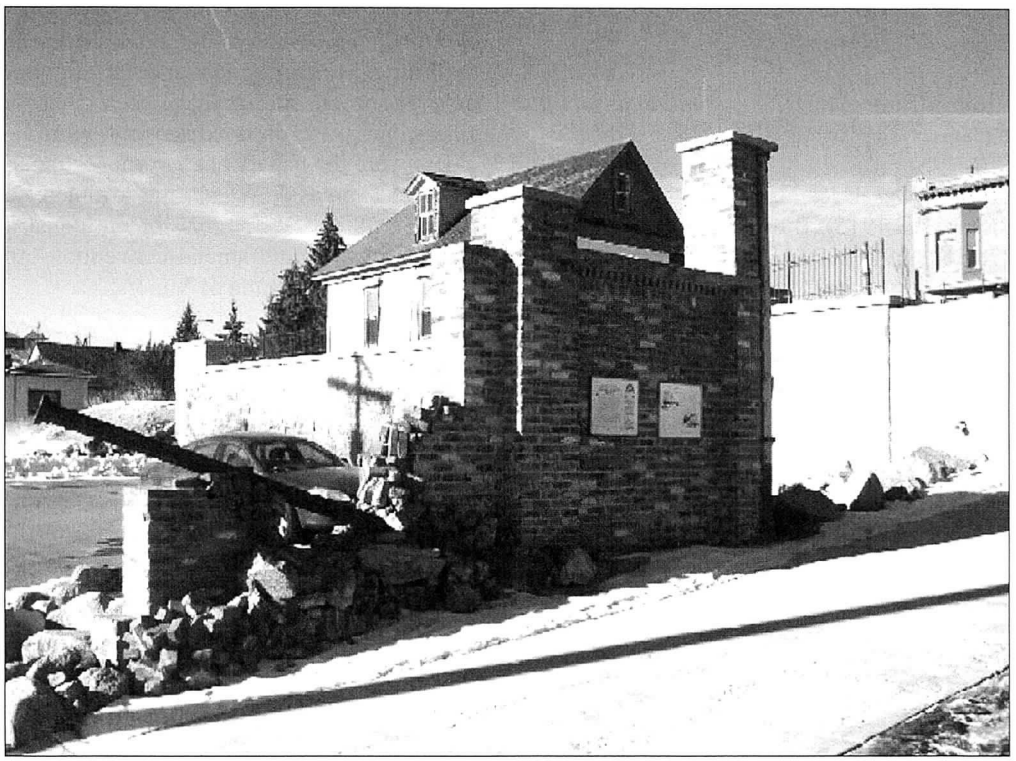
[39] *Anaconda Standard* (April 6, 1915).

[40] *Montana Socialist* (April 10, 1915). Voter turnout statistics for this election seem to support the Socialists' contention. Turnout was 13,097 compared to an all-male turnout of 7,133 two years before. In 1913 the combined old party vote was 3,266. In 1915 it stood at 9,399 - a net gain for the old parties of 6,133 votes over what they had received in 1913. In contrast, Smith received 3,698 votes compared to the 3,867 that went to Duncan in 1913, a net loss of 169 votes. The inescapable conclusion is that the Socialists held their core supporters while failing to attract any additional support, support they should have gotten from the women voters and did not.

[41] *Montana Socialist* (April 10, 1915).

[42] *Butte Miner* (April 3, 1917).

Note: In some instances, for example, the destruction of the Butte Miners' Union and its aftermath, only the most accessible sources have been cited for space considerations. Also used extensively, but not cited in this essay, were the papers of Governor Samuel Stewart and Senator Thomas J. Walsh, the testimony and research reports of the U.S. Commission on Industrial Relations, and the records and annual convention proceedings of the Western Federation of Miners.



Miner's Union Hall Memorial to destruction in 1914. North Main Street between Quartz and Copper Streets. Photo by Richard Gibson.

Excerpts from COPPER METROPOLIS

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Butte grew from a heart of copper. Metallic wealth had lured men to the arid Summit Valley of southwestern Montana, situated more than a mile high in the northern Rocky Mountains. Settlers named a distinctive volcanic cone in the valley's northwest corner "Big Butte" and a granitic, thousand-foot rise to its east "the Hill." The Hill was a treasure trove of billions of dollars worth of gold, silver, zinc, lead, manganese, and, above all, copper. Between 1880 and 1975, when underground mining virtually ceased in Butte, miners wrested from the earth nearly two-and-a-half million tons of zinc, more than twenty-four thousand tons of silver, over one hundred tons of gold, and over ten million tons of copper—enough to form a copper cube 330 feet square. But the land did not relinquish its riches easily. Hundreds of miners died in the shafts and stopes of the mines that honeycombed the Butte Hill. Thousands of others were injured, crippled, or disabled by silicosis, commonly called miner's consumption, a disease caused by breathing the silica dust-laden air generated by hardrock drilling.[3]

While miners challenged the earth for its riches, capitalists battled for control of the wealth their employees brought to the surface. The War of the Copper Kings, a legend in the history of American business, pitted three ruthless men against each other. Marcus Daly, William A. Clark, and F. Augustus Heinze deployed money, mining engineers, lawyers, judges, politicians, journalists, and editors in one of the most vicious struggles for corporate dominance waged during the Gilded Age. The denouement was the triumph of Marcus Daly's Anaconda Copper Mining Company (ACM). By the late 1920s Anaconda had become the eighth largest industrial company in the United States. Its holdings included mines, smelters, foundries, brass mills, coal fields, coke ovens, timberlands, sawmills, newspapers, and the Butte, Anaconda and Pacific Railway, which shuttled ore, supplies, and people between Butte and its companion city, Anaconda. In 1883 Marcus Daly founded the town of Anaconda, twenty-six miles from Butte, at a source of plentiful water, as the site of the Anaconda Company's first copper

Reprinted from *Mining Cultures: Men, Women, and Leisure in Butte, 1914-41*. Copyright © 1997 by the Board of Trustees of the University of Illinois. Used with permission of the University of Illinois Press. Notes are at end of text.

smelter. Anaconda's empire reached far beyond the borders of Montana and the United States. Mines and smelters in Mexico, Chile, and Poland took direction from corporate headquarters in New York and Butte, where general officers occupied the infamous sixth floor of the Hennessy Building. Despite various reorganizations and renamings in response to antitrust legislation, Anaconda was known—and is still referred to many years after its departure from Butte—as "the company," a term, as Montana Senator Burton K. Wheeler noted, "simple yet awe-inspiring." [4]

Butte began like hundreds of other western mining camps. Prospectors first struck gold in Silver Bow Creek in 1864, and gold seekers hastily erected huts and storefronts that housed the highly transient population of miners, merchants, prostitutes, and traveling performers. When the gold played out, just about everyone left. In 1875, when Wiliam L. Farlin began mining and reducing silver ore, another rush to the valley occurred.[5]

Silver turned Butte into one of the half-dozen richest metal mining districts in the United States. Government demand for the white metal to back currency and mint coins guaranteed a booming economy between the mid-1870s and the early 1890s. Butte's silver mines rivaled those of Leadville and Aspen, Colorado, the Coeur d'Alene valley in Idaho, and Virginia City, Nevada. With silver came a sense of permanency and the railroad. Residents platted a townsite in 1876 and incorporated their community as Butte City in 1879. In 1881 the Union Pacific completed a line from northern Utah to Butte to cash in on Butte's lucrative freight traffic.[6]

With the repeal of the Sherman Silver Purchase Act in 1893, the nation's silver market collapsed. Butte's fortunes had been wedded to copper since 1882, however, when Marcus Daly discovered "the largest deposit of copper sulphide that the world had ever seen" at the three-hundred-foot level of the Anaconda Mine. The vast, rich reserves of copper in the Hill ultimately distinguished Butte from other western mining camps and turned it into the world's largest producer of the red metal until the late 1920s. Copper, filling a new demand created by the electrical revolution, fueled Butte's rise to a major city of the Rocky Mountain West. Between 1881 and 1909 five railroads laid tracks to Butte, tying the city to the east and west coasts, to Salt Lake City and points south, and north to Canada. By June 1916 thirty-four passenger trains terminated, originated, or passed through Butte every day. Railroads exported the metallic wealth of Butte and imported thousands of immigrants, prodigious quantities of food, consumer goods that rivaled the stock of New York City department stores, traveling theater groups, evangelizing reformers, and campaigning politicians.[7]

Butte became a rowdy town that inspired pungent description from novelists, journalists, and travelers: notorious, drab, dingy, ugly, noisy, naked, and barren, but also young, animated, shrewd, generous, jubilant, democratic, and cordial. The foul sulphurous fumes spewing from smelters or floating from open heaps of roasting ore repulsed travelers to the burgeoning metropolis in the 1880s. Dense smoke compelled residents to walk the streets with sponges or rags tied over their mouths and noses, carrying lanterns to find their way in the middle of the day. Although some residents complained about the smoke, capitalist William A. Clark claimed healthful benefits, asserting that the fumes were a disinfectant that killed germs and that the measure of arsenic in the smoke gave Butte women their beautiful, pale complexions. Ann Pentilla remembered that the byproducts of mining had a different cosmetic effect. She recalled that

"your face would be pitted from the chunks of sand" blown from tailings piles. In Butte, however, health and beauty were secondary considerations, and the *Butte Miner* expressed the majority's opinion when it declared, "The thicker the fumes the greater our financial vitality."[8]

From 1890 to the eve of World War I, Butte enjoyed a rollicking adolescence. Few doubted that the riches of the Hill were limitless, and although there were always bust times when the price of copper was down, just as surely boom times would return. These were the years of the War of the Copper Kings and the consolidation of the Anaconda Company, of increasing copper production and high wages, of construction of a thriving central business district on the Hill—"uptown Butte"—and streetcar suburbs on the valley floor. New immigrants—Finns, Serbs, Croatians, and Italians—augmented colonies of Irish and Cornish miners, and the geography of ethnicity and class became clearly demarcated. The city reveled in its reputation as a wide-open town. Miners kept salons, restaurants, gambling halls, and the red light district bustling twenty-four hours a day. Gertrude Atherton, a writer who set her novel *Perch of the Devil* in Butte in 1914, captured the optimistic spirit of the prewar days when she wrote that Butte "has the jubilant expression of one who coins the very air, the thin, sparkling, nervous air, into shining dollars, and, confident in the inexhaustible riches beneath her feet, knows that she shall go on coining them forever."[9]

Butte's hub was the corner of Park and Main streets, the center of the business district. Some of the city's most impressive buildings anchored the intersection. An elegant seven-story office building, designed by Cass Gilbert and housing the Daly Bank and Trust Company, claimed the southwest corner across the street from the Rialto Theater and kitty-corner to the ornate Owsley Block (individual business buildings in Butte were often referred to as "blocks"). Streetcars, part of the county's thirty-eight-mile rail transit system, met at the corner, bringing shoppers to town from the suburbs, picking up children and families headed out to the Columbia Gardens amusement park, and carrying weary miners home after work.[10]

By 1917 automobiles challenged streetcars and the existing army of horse-drawn wagons, buggies, and hacks. Although eleven livery stables still operated in Butte in 1917, the automobile was destined to prevail, and by the mid-1920s no stables remained. The streetcar system persisted until 1937, when it too conceded victory to the automobile and bus. Automobile dealerships multiplied during the 1910s, peaking at twenty-eight in 1918. Car dealers proclaimed the triumph of the automobile when the government proposed a 5 percent tax on cars during World War I. In protests to their congresswoman, Jeannette Rankin, dealers declared their willingness "to stand our share of war cost but why discriminate against automobiles; they are necessities not luxuries."[11]

Although mining dominated the economy, a wide variety of mercantile and small manufacturing enterprises—food wholesalers, breweries, department stores, warehouses, brick works, and iron foundries—provided the amenities of urban life and the goods and services necessary to make Butte a regional economic center. Well-heeled consumers could indulge in French wines at the Lisa grocery, have a fur coat altered at Klingbell's taxidermy, purchase silver service and jewelry at any of two dozen jewelers, select finery for a costume ball from Madam Robinson, or acquire an oriental carpet from Joseph David. There were dozens of butchers and grocers who would deliver food to the door. The Imperial Macaroni Company manufactured pasta

and soups. Vincent Truzzolino provided tamales, wholesale and retail, and a handful of noodle parlors served Chinese food or delivered dishes by messenger. Symons Dry Goods Company—cash only—employed a small army of young women who ran cash from the customer to the cashier's office and brought back change. Hennessy's Department Store was famous for providing everything from miners' overalls and plain groceries to furs, china, and furniture.

Uptown Butte also housed a wealth of commercial amusements. Confectioneries accommodated cigar counters, newspaper racks, and ice cream parlors that catered to courting couples, maids and children, gossiping businessmen, and shoppers seeking refreshment. In 1917 fourteen theaters drew people uptown for vaudeville and movies. Off-shift workmen filled saloons, billiard parlors, and gambling halls. Chinatown, just a block southwest of Park and Main, beckoned thrill-seekers, attracted by exaggerated stories of gambling, opium dens, and white slaves. Visitors were more likely to encounter vegetable sellers, silk traders, and Chinese on their way to the joss house or the Chinese Baptist Mission. Directly east, across Main Street, hundreds of prostitutes worked in the red light district, a warren of wooden cribs interspersed with substantial brick parlor houses.[12]

On most nights, a large proportion of Butte's population could be found congregated in one of the city's many labor or fraternal halls. Butte had been nicknamed the Gibraltar of Unionism because nearly all wageworkers in Butte before the war were union members, their solidarity inspiring workers throughout the West. Forty-four locals listed themselves in the 1917 city directory. Cab drivers and horseshoers, musicians and decorators, butchers and barbers, newsboys and theater ushers, sheepshearers and telephone operators, and chambermaids and iron molders all followed the lead of miners by unionizing. When men from the Butte Miners' Union organized the Western Federation of Miners in 1893, Butte became a center of the western labor movement.[13]

Many people also belonged to a variety of associations; nearly every organized fraternal group in the country had a chapter in Butte. By the advent of World War I, the Masons, Elks, Odd Fellows, Good Templars, Knights of Columbus, Ancient Order of Hibernians, Sons of St. George, and Scandinavian Brotherhood, among others, had built impressive halls. Most fraternal organization had ladies' auxiliaries, and women also formed a plethora of independent literary and cultural clubs, for example, the Homer Club, the Drama Study Club, the West Side Shakespeare Club, and the Plant and Pray Garden Club. Women also founded local branches of the Women's Christian Temperance Union and the Florence Crittenden Rescue Circle. In addition to ethnic and fraternal societies, Butte boasted dozens of civic, religious, professional, and athletic associations for the entertainment, pleasure, and comfort of the city's men and women.[14]

* * *

It was always difficult to know just how many people were bustling around Butte. Miners were notoriously transient, and political boundaries and the methods of census-taking disguised meaningful figures. When people referred to Butte, they usually meant the metropolitan area that included the densely settled neighborhoods outside of but contiguous to the city limits. Thus, census figures for Silver Bow County, which apart from Butte contained only a few villages, are a much more accurate reflection of the Butte population than those for the city itself. William A. Kemper, president of the Butte Land and Investment Company, calculated through his own inquiries and a survey of construction,

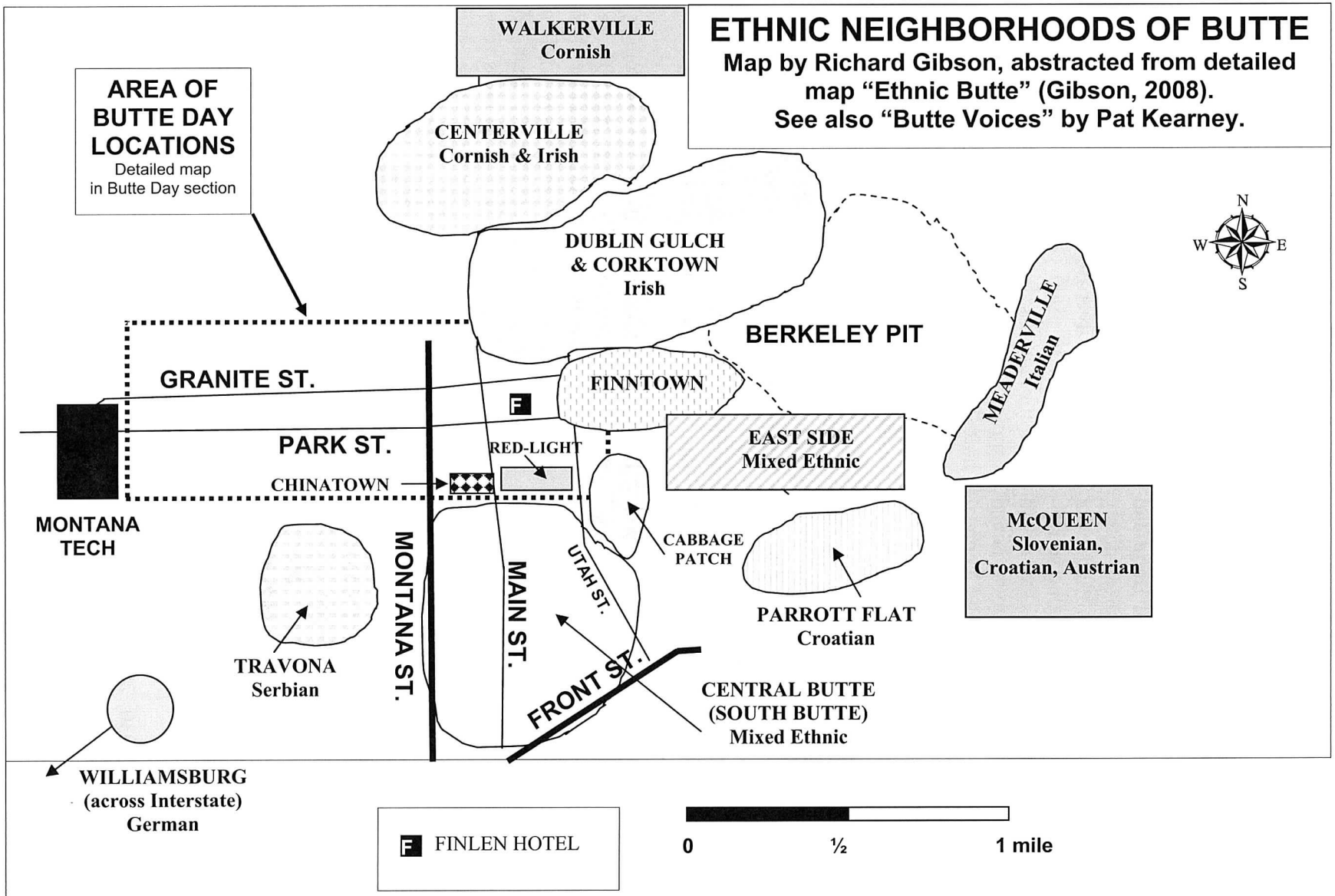
that although the census bureau had underestimated residents of the city at thirty-nine thousand in 1910, the R.L. Polk Company, canvassing for its 1916 city directory, was "inclined to flatter" with its claim of a metropolitan population of a hundred thousand. His reckoning of the 1916 populace in Butte and the adjacent suburbs was approximately eighty-five thousand, and he qualified even that, noting, "with conditions changing so rapidly, it must be, at most, a guess." Even with such qualifications, until 1930 Butte remained the largest city between Spokane and Minneapolis and north of Salt Lake City, making it not only a copper metropolis but also a regional trading center.[15]

A large percentage of Butte's highly mobile population was foreign-born. One analyst of the census concluded that between 1890 and 1930 Butte was the most ethnically diverse city in the intermountain West. The celebration of George Washington's birthday in 1920 graphically demonstrated that fact. The Daughters of the American Revolution welcomed guests to the YMCA, where Welsh singers, the Daughters of Scotia, and Swedish, Norwegian, Slavic, Italian, and Polish musicians played and sang and then listened to speeches by representatives of thirty-three nationalities. Although major seaport cities are usually considered loci of the country's immigrant population, in fact those cities funneled streams of people to the hinterlands. Between 1870 and 1910 the percentage of European-born people who lived in the mountain states was higher than that in the nation. [16] Montana for most of the twentieth century harbored the greatest number of these mountain states' immigrants, who were drawn to the "treasure state" by its mines and smelters.[17]

Between 1890 and 1930, 20 percent or more of the region's Irish lived and worked in Butte and Anaconda. Turn-of-the-century Butte was "one of the most overwhelmingly Irish cities in the United States." In 1900 Irish immigrants and their children accounted for a quarter of the county's population, a higher percentage than in any other American city at that time. By 1910 immigrants and children of foreign or mixed parentage made up 70.2 percent of Butte's population. Ireland, England, and Canada contributed the largest number of immigrants to Silver Bow County in 1900, 1910, and 1920. In 1900 Germans, Scandinavians, and immigrants from the Austro-Hungarian Empire formed the next most numerous cohort. In the first decade of the twentieth century Finns and Russians poured into the state. By 1920 almost a third of the region's Finns resided in the Montana mining counties of Carbon, Cascade, and Silver Bow. By that same year, mines and merchants in Butte employed and served significant numbers of Yugoslavs, Italians, Greeks, Czechs, and Poles. After World War I the Irish still wielded influence, but the city's ethnic amalgam had grown richer and more complex.[18]

Butte's population was overwhelmingly young and predominantly male. In 1900, 88 percent of the population was younger than forty-five; fewer than 1 percent was older than sixty-five. The figures had scarcely changed in 1910. By 1920, 78 percent of Butte's residents were still younger than forty-five, and only 2.2 percent was older than sixty-five. Most of these young urbanites were men. In 1900 there were 147.7 men to every 100 women in Butte, ten years later the ratio was 132.4 to 100, and in 1920 it was 119.6 to 100. One significant change concerned the growing number of married men. In 1910, 52 percent of Butte men were single; in 1920, however, only 42 percent of those older than fifteen were unmarried, a figure that held steady in the 1930 census.[19]

Butte's population resided in a web of neighborhoods radiating from the uptown hub of commercial activity. Booms in the copper


ETHNIC NEIGHBORHOODS OF BUTTE
Map by Richard Gibson, abstracted from detailed map "Ethnic Butte" (Gibson, 2008).
See also "Butte Voices" by Pat Kearney.
WALKERVILLE
Cornish
AREA OF BUTTE DAY LOCATIONS
Detailed map in Butte Day section
CENTERVILLE
Cornish & Irish
DUBLIN GULCH & CORKTOWN
Irish
BERKELEY PIT
MEADERVILLE
Italian
N
W
E
S
GRANITE ST.
FINNTOWN
PARK ST.
RED-LIGHT
EAST SIDE
Mixed Ethnic
CHINATOWN
MONTANA TECH
CABBAGE PATCH
McQUEEN
Slovenian, Croatian, Austrian
MONTANA ST.
MAIN ST.
UTAH ST.
PARROTT FLAT
Croatian
TRAVONA
Serbian
FRONT ST.
CENTRAL BUTTE
(SOUTH BUTTE)
Mixed Ethnic
WILLIAMSBURG
(across Interstate)
German
FINLEN HOTEL
0
½
1 mile

market caused frequent housing shortages and subsequent flurries of building. In 1906 the *Butte Miner* reported accommodations so sparse that transients were spending the night in Turkish baths and visitors were sleeping in chairs. Butte's contractors were busiest between 1915 and 1918, when the city issued more than three thousand building permits. Immigrants jammed into new walk-up flats, and bungalows shot up in Butte's middle-class neighborhoods. Mary Clapp was pleasantly surprised by the oak floors, beveled plate-glass windows, commodious bookcases, and especially the white-tiled bathroom and built-in tiled ice box she found in her West Side bungalow. "No wonder I never thought of Butte as a mining camp," she recalled. "No wonder I imagined that every light down the hill shone from the window of some bungalow as rich in possibilities of home happiness as our own."[20]

The West Side, home to Butte's upper and middle classes, was an attractive neighborhood of rambling Victorian houses, Queen Anne cottages, and craftsman bungalows. Businessmen, lawyers, doctors, teachers, and skilled workers resided there. So did some of Butte's wealthiest citizens. Daniel Hennessy, the "Merchant Prince of Montana," built his mansion on the corner of Park and Excelsior. His next-door neighbor was Cornelius Kelley, who became president of the Anaconda Company in 1918. Fellow ACM executives William D. Scallon and John D. Ryan also built their residences on the heights of Excelsior Avenue.

North and east of the business district neighborhoods bore a different configuration. Dublin Gulch, Corktown, Centerville, and the independent town of Walkerville lay to the north and northeast, encompassing the parishes of St. Mary and St. Lawrence O'Toole. The streets and alleys of these working-class neighborhoods connected like the seams of a crazy quilt, curving to edge around headframes, hoist houses, and mine dumps. Here were some of Butte's most famous and lucrative mines: the Anaconda, Neversweat, Diamond, Mountain View, High Ore, Parrot, Speculator, and Mountain Con. Small wood-frame cottages huddled around the mine structures. Many of the deep mines were "hot boxes" where sweat quickly bathed a working man. As soaking wet men stepped off the mine cages into the frigid air of Butte's winter, clouds of steam enveloped them and a chilling walk home in icy clothes invited pneumonia. Until streetcars made it possible to commute to the mines and until employers built "drys"—buildings in which men could shower and change into dry clothes after work—workers built their homes as close to the mines as possible.

Dublin Gulch, as one would expect, was overwhelmingly Irish. As Julia McHugh recalled, "Most of the families were Harringtons, Murphy, Sullivan, etc., and all the fathers were John or Mary." Residents coined nicknames such as Mary Black Pete, Mary-up-to-Paddy's, and Mary Cal to distinguish one Mary Harrington from another. Strong neighborhood ties were evident in fiercely contested football and baseball games with other neighborhoods and in the close scrutiny of boys from outside the Gulch who came courting. Julie McHugh's mother exhibited her loyalty to the neighborhood in a confrontation with the coal deliveryman. Once, when the coal wagon had a hard time backing up to the coal bin window and "the horses were slipping on the ice and the driver was swearing at the crazy people who would live there, Ma said, 'I'll have you know I wouldn't give up my house for Con F. Kelley's on the West Side.'"[21]

In a crescent just southeast of the red light district lay the Cabbage Patch, a hodgepodge of cabins and ramshackle buildings full of

"batching" and "housekeeping" rooms. In its confines working-class poor rubbed elbows with drug addicts, older prostitutes, bootleggers, and criminals. The Patch was "notorious" for its "third class saloons, its cheap restaurants and its cheaper flop houses, flanked by employment offices for transient labor."[22]

The East Side, crammed with walk-up flats, fourplexes, and rambling boardinghouses spread out north and east of the Cabbage Patch. "It was teeming with people and it seemed like all the families had kids," remembered John Onkalo. "In fact, the houses were almost skin to skin, and boy, there was kids all over the neighborhood." Children absorbed the ethnically based rivalries of their parents, venting them in street fights. Catherine Hoy identified with a gang of Irish boys from Dublin Gulch who would "go down to Finntown and all those places to fight. ... Of course, we had the advantage. Anaconda Road was on a hill and Finntown was down there below us on Granite [Street] and we cold pelt rocks down there but they couldn't put the rocks up.

Finntown was the East Side's dominant ethnic neighborhood, although the streets encompassed in the mental map of residents were not settled exclusively by Finns. Onkalo described the area close to the Pennsylvania Mine "like an English colony," and many Swedes lived along East Galena Street. But Finnish immigrants and their institutions flavored the neighborhood. Saunas and the good food served in Finn boardinghouses drew working men and women from all over the city to Finntown. The community built Finlanders Hall in 1902, and for several decades it hosted parties, dances, and plays as well as the offices of the Industrial Workers of the World and the Finnish Workers Club. Finns worshiped at the Holy Trinity Finnish Lutheran church and at the evangelical Finnish Mission Church.[23]

The East Side also attracted a small enclave of Lebanese, at that time known as Syrians. These immigrants made their living as merchants, often selling groceries and fruits, sometime carpets. Syrian women, carrying large suitcases filled with handmade aprons, housedresses, and other notions, peddled their goods door to door. The Syrian Peace Society, organized in 1908, was the first Syrian fraternal lodge in the country. In its hall on East Galena Street immigrants held wakes, weddings, receptions, and English classes.[24]

Serbs, Croatians, Slovenes, and Montenegrins also lived on the East Side and in Dublin Gulch. These southeastern European immigrants were subjected to intense discrimination. In 1910 the *Butte Evening News* inflamed public opinion with accusations that the "bohunks" were "driving white men slowly but surely out of the camp." Ann Pentilla remembered students cruelly teasing Slavic children: "When we went to school they would make fun of us, they called us 'the garlic eaters.' At recess nobody wanted to stay behind us because we smelled from garlic. My mother flavored everything with garlic. And now everybody uses it, but in those days just Slavic people and the Italians used garlic." Slavs created a rich organizational life in their neighborhoods. Social and fraternal lodges, such as the Serbian Montenegrin Federation, the Montenegrin Literary Society, the Serb-Yugoslav Unity Lodge, and the Circle of Serbian Sisters, eased the transition to life in the United States. Serbs worshipped in the onion-domed Serbian Orthodox church, and Roman Catholic Croatians continued to celebrate pre-Lenten *mesopust*, a festival culminating in the burning or beheading of a straw effigy, signifying the exculpation of the community's sins. [25]

Further east lay the suburbs of Meaderville and McQueen. Meaderville, which in the 1920s and 1930s became famous for its res-

taurants, speakeasies, and nightclubs, began as a settlement of Cornish and Italian miners and smeltermen. McQueen lay huddled at the foot of the mountains bordering the east side of the valley, north of the Pittsmont smelter and about two miles from uptown Butte. Settled primarily by immigrants from the Austro-Hungarian Empire and England, McQueen also sheltered newcomers from Scandinavia, Germany, and France. The gathering places of this overwhelmingly Catholic community were the Jesuit-built Holy Saviour church and several Slavic saloons: Brozovich Brothers, Jurmick's, Petrovich's, Raenovich's, and Krizman's.[26]

All of these neighborhoods ranged across the Hill. "The Flat" was the valley floor stretching south, where new suburbs developed in the 1910s to accommodate the growing population. Streetcars enabled mean and women to get to work on the Hill and to live on the Flat in comfortable bungalows set in small yards, a luxury found uptown only on the West Side. A commercial district grew up on Harrison Avenue. Lake Avoca, with boats for rent and beer gardens for refreshment, attracted pleasure-seekers from all parts of the city. In 1909 the ten-year-old Butte Country Club moved to a site next to the lake and laid out a new golf course. Bu the late 1910s the Flat had enough residents to warrant construction of several grammar schools.[27]

Butte's working-class neighborhoods were vigorous, fascinating districts, but they were also overcrowded, unsanitary, and noisy. In a memoir of the East Side Frank Carden evoked the cacophony that was an ever-present part of the landscape. Northern Pacific steam locomotives with "bells ringing and whistles blowing" shunted card between coalyards and the warehouse district. Blacksmiths, machinists, and boilermakers noisily executed repairs and maintenance work at the nearby Great Northern Railway roundhouse. Steam-driven vibrators launched booming attacks on frozen ore in the Belmont Mine's ore bins, breaking it up to be dropped into cars of the Butte, Anaconda and Pacific Railway. Stationary steam engines running mine hoists and turning the creaking sheave wheels at the top of gallus frames sometimes operated twenty-four hours a day to serve three shifts of miners.[28]

East and West Sides were different worlds in early-twentieth-century Butte. West Siders had horses and buggies and then automobiles. East Siders walked or took the trolley. West Side children had store-bought toys; those on the East Side improvised with scraps of wood and metal they found or stole from the mine yards. A daughter of a shift boss stuck out like a sore thumb in Dublin Gulch. With only one sibling and a father who made more money than most of his neighbors, she got "new shoes, dresses, coats, caps, scarves, and all for school" rather than the hand-me-downs with which most children made do. Workers and their children organized their social life according to a complex web of class and ethnicity. Catherine Hoy observed that for the most part, everyone in her neighborhood lived according to unspoken yet collectively acknowledged norms: "They didn't try to outdo the other one. If you did, you got into trouble ... if they thought you were a little richer than they were, they wouldn't associate with you. They'd think, 'What the heck, she's too rich for me.'"[29]

Notes (for full bibliography, please refer to Murphy's book published by University of Illinois Press)

[3] In the late 1970s before underground mining ceased in Butte, the Hill produced—in 1984 dollars—more than $22 billion worth of copper, silver, and gold. On Butte geology, see McClernan, "Sixty Million Years of History."

[4] On the holdings of Anaconda, and for a variety of interpretations of the War of the Copper Kings and early Butte history, see "The Top 100 Industrials"; Marcosson, *Anaconda*; McNelis, *Copper King at War*; Glasscock, *The War of the Copper Kings*; Malone, *Battle for Butte*. Wheeler is quoted in Wheeler, *Yankee from the West*, 77.

[5] Malone, *Battle for Butte*, 15-17.

[6] Chadwick, "Montana's Silver Mining Era"; *Geologic Atlas of the Rocky Mountain Region*, 304-5; Federal Writers' Project of the Work Projects Administration, *Montana*, 139.

[7] Malone, *Battle for Butte*, 28; *Official Guide of the Railways*, June 1916, 629, 640-41, 713, 733, 796.

[8] Foy and Harlow, *Clowning Through Life*, 184-85. Clark is quoted in Bigart, *Montana*, 80; Ann Pentilla, interview by Ray Calkins and Caroline Smithson, Butte, 27 April 1979, 43-44; *Butte Miner* quoted in Wyman, *Hard Rock Epic*, 16.

[9] Atherton, *Perch of the Devil*, 57.

[10] Carden, "A Walk from 228 S. Gaylord Street," 8; Swett, *Montana's Trolleys—II*, 23.

[11] *Butte City Directory*, 1917, 1918. On the abandonment of Butte's street railway system, see Meyers, "The Butte Rail Connections," 36; and Kwitny, "The Great Transportation Conspiracy," 20. M.H. Coyne to Jeannette Rankin (hereafter cited as JR), 5 May 1917, Jeannette Rankin Papers (hereafter cited as JR Papers), box 11, file 3, Montana Historical Society Archives (hereafter cited as MHSA).

[12] Sanborn Map Company, *Insurance Maps of Butte, Montana*, 1900, 1916.

[13] On the development of Butte's labor movement, see Frisch, "The 'Gibraltar of Unionism.'"

[14] *Butte City Directory*, 1917.

[15] Kemper, "Butte," 14-15.

[16] In this analysis the mountain states are Arizona, Colorado, Idaho, Montana, Wyoming, Nevada, New Mexico, and Utah.

[17] *Anaconda Standard*, 22 January 1920, 17; Winsberg, "European Immigration to the Mountain States."

[18] Winsberg, "European Immigration to the Mountain States," 105; Emmons, Butte Irish, 13; U.S. Department of the Interior, Census Office, *Abstract of the Twelfth Census*, 106; U.S. Department of Commerce, Bureau of the Census, *Thirteenth Census*, 2:1158; U.S. Department of Commerce, Bureau of the Census, *Fourteenth Census*, 3:586. All census statistics cited in the Census Bureau's published reports refer to the city of Butte; figures were not given for Silver Bow County. In 1920 census supervisor James H. Faulds complimented Butte enumerators but said, "They have experienced more difficulty in securing the necessary information for Butte, owing to the attitude adopted by a number of landladies and landlords, who have refused to give them any information whatever. Butte is the worst place I have had in this respect." *Anaconda Standard*, 23 January 1920, 1.

[19] U.S. Department of the Interior, Census Office, *Abstract of the Twelfth Census*, 109; U.S. Department of Commerce, Bureau of the Census, *Thirteenth Census*, 2:1147, 1150; U.S. Department of Commerce, Bureau of the Census, *Abstract of the Fourteenth Census*, 131, 175, 258; U.S. Department of Commerce, Bureau of the Census, *Fifteenth Census*, 3, pt. 2: 25, 30. Figures on marital status refer only to Butte city; marital statistics are not available for the county population, except for 1930, when 42 percent of the men in the county were also listed as single.

[20] On housing in Butte and neighborhoods' social composition, see Murphy, "Report on a Survey of Historic Architecture on Butte's West Side"; and Martin and Shovers, "Butte, Montana." Mary Brennan Clapp's remarks are found in the *Anaconda Standard*, 4 February 1923, pt. 2, 1.

[21] McHugh, "Gulch and I," 4, 15; Catherine Hoy, interview with Ray Calkins and Caroline Smithson, Butte, 11 May 1979, 20-21.

[22] Sanborn Map Company, *Insurance Maps of Butte, Montana*, 1916; Ostberg, "Sketches of Old Butte," 114. For other descriptions of the Cabbage Patch, see *Montana Standard*, 21 April 1940, 1, 10; and Writers' Program, Work Projects Administration, *Copper Camp*, 267-71.

[23] Jon Onkalo, interview by Ray Calkins, Butte, February 1980, 7; Hoy interview, 20-21; Edward Sullivan, interview by Laurie Mercier, Butte, 25 February, 10 March 1982; *Anaconda Standard*, 6 April 1902, 8.

[24] Pentilla interview, 16-17; *Montana Standard*, 28 August 1977, n.p.

[25] *Butte Evening News*, 24 July 1910, 9, 31 July 1910, 9; Pentilla interview, 15-16, 33-34; *Anaconda Standard* 15 February 1920, 5; unreferenced clipping, MHSL vertical file. Butte was not unique among western mining towns in its discrimination against Slavic immigrants. See, for comparison, Kosso, "Yugoslavs in Nevada."

[26] *Montana Standard*, 29 July 1973, 17, 20 November 1978, 1.

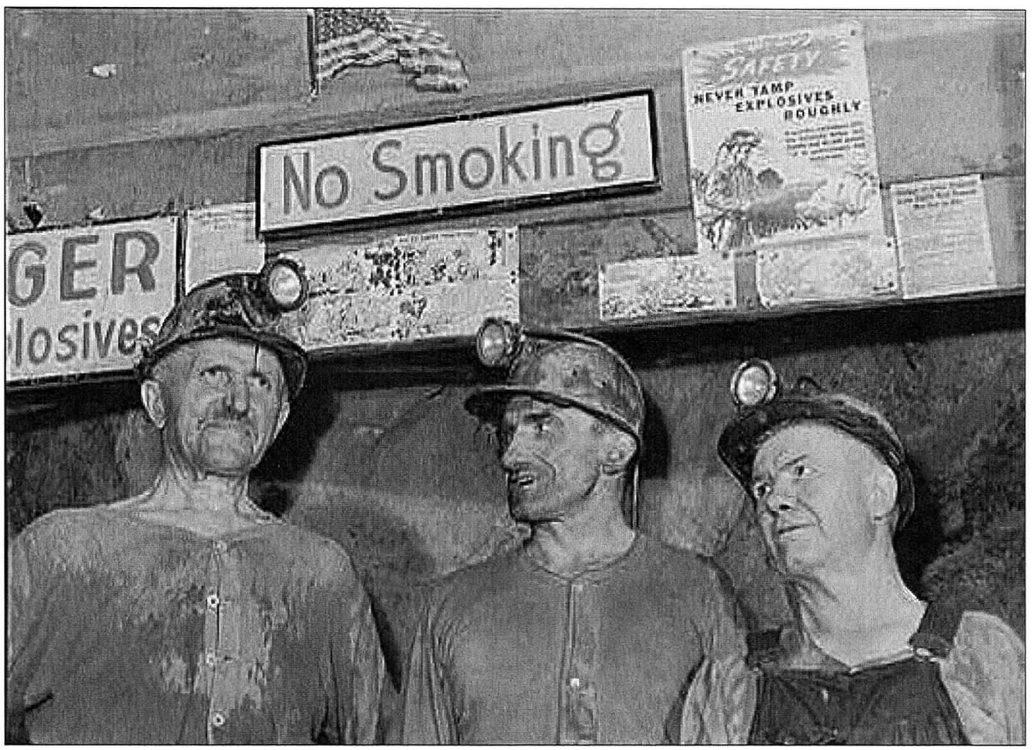
[27] Murel L. Roberts, interview by Ray Calkins, Butte, 8 August 1980, 23; "Observing Thirty Years with the Present Butte Country Club House," 18 August 1945, 1-3. For development of the Flat, see Ore, "Suburban Schools in Butte, Montana."

[28] Carden, "A Walk from S. Gaylord Street," 17-18.

[29] McHugh, "Gulch and I," 2; Hoy interview, 24-28; Olga Sontum, interview by Ray Calkins, Butte, February 1980, 11, 15. This attitude of not outspending one's peers reflects the early-nineteenth-century "traditional" culture that Gordon and McArthur describe in "American Women and Domestic Consumption" and suggests its persistence in twentieth-century working-class culture.

We do our work for an Englishman
And room with a French Canuck.
We board at a Swedish restaurant,
Where a Finnlander cooks our chuck.
We buy our clothes off a German Jew
And our shoes off a Russian Pole.
And we trust our hope in a Roman pope
To save our Irish soul.

Anonymous, recalled by Kevin Shannon and recorded in *The Speculator*, Vol. 2, no. 1, Winter 1985, Jim Tracy, ed.



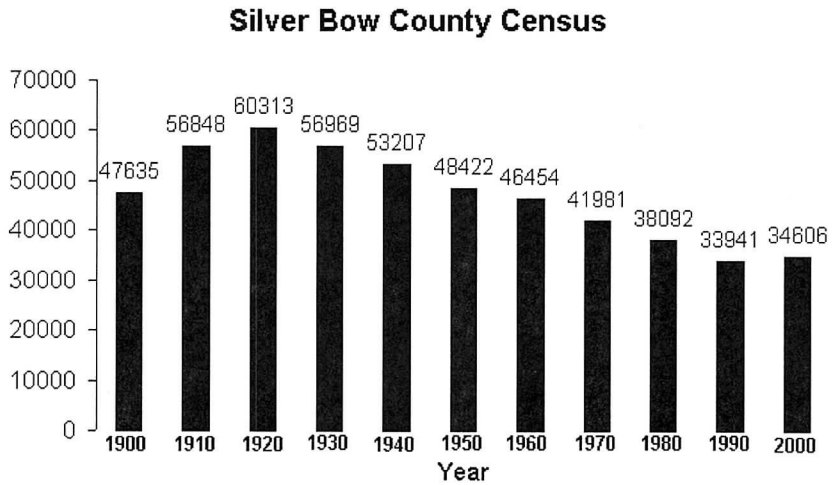
Copper miners, Butte, Montana, September 1942. Photo by Russell Lee. Farm Security Administration - Office of War Information Photograph Collection (Library of Congress), LC-USW3-008248-D

Butte, 1950-2009: Decline, Loss, and The Rise of Historic Preservation and Cultural Tourism

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The fates of Butte and the Anaconda Company were closely entwined throughout most of the 20th century, and like all mining towns Butte's economy followed the rises and falls in demand for copper. As the Anaconda Company began to develop its reserves in Chile in the 1920s, and with the sharp decline in the price of copper following World War I, Butte's long sustained boom turned into a decline.

Official population figures (below) in the 1900s to 1930s probably underestimated the actual count, and the number of residents fluctuated rapidly especially in the 1910s. Estimates of the peak population in 1917-1918 range from 85,000 to over 100,000.



Despite the decline, Butte remained an important mining center. Significant strikes, including a 1959 shut-down that lasted more than six months, reflected changes in economic conditions and resulted in mines closing and never re-opening—the Anselmo, for example, closed permanently in 1959. The Berkeley Pit, begun in 1955, was the focus of most operations by the late 1960s, and most underground operations had ended by 1975 or earlier.

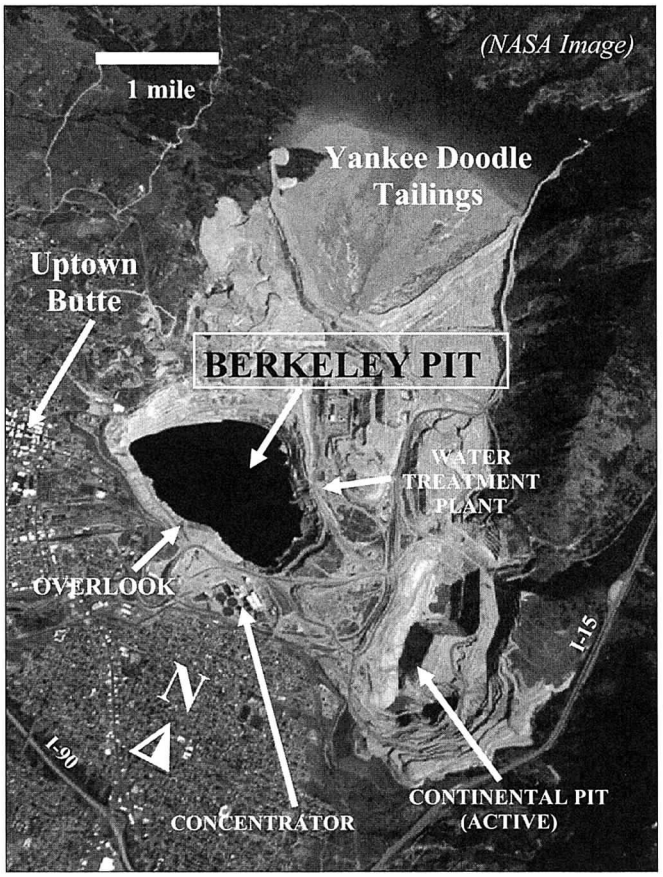
The growth—and anticipated growth—of the Berkeley Pit was perhaps the most significant factor in the way Butte evolved after World War II. As it expanded in the 1960s and 1970s, the Pit gobbled up entire neighborhoods—Meaderville, McQueen, and much of East Butte—dislocating many residents and uprooting or burying treasured institutions such as churches and fraternal halls that had been centers of com-

ANATOMY OF AN OPEN-PIT MINE

Richard I. Gibson

By 1955, when the Berkeley Pit began, costs of underground mining had begun to outweigh the value returned. Even excavating whole rooms underground meant that all that material had to come up through a series of bottlenecks—the shafts of the underground mine systems.

The Berkeley Pit began in July 1955 near the old Berkeley underground mine. The Berkeley and Rarus Mines exploited the Berkeley vein, an important northwest-southeast mineralized zone that cut across the rich Anaconda vein system. The economic advantage—in the face of low grades of ore—was that ore could be mined using power shovels and giant dump trucks, rather than the complex, dangerous, and localized operations underground.



Retired underground miners in Butte will tell you that the men and women who worked in the Berkeley Pit weren't miners—they were truck drivers and mechanical shovel operators. But they produced more copper, faster, than could have been hauled up the shafts.

By the time the Berkeley Pit ceased operations in 1982, something over 1 billion tons—two trillion pounds—of material had been removed. With ore averaging less than 15 pounds of copper per ton, that still means that around 15 billion pounds of copper came from the Berkeley Pit, more than half the 23 billion pounds produced to date from all Butte's mining operations.

The pit is about 1½ miles wide (left to right as you look at it from the Viewing Stand) and a mile north-south. Nearly 1,800 feet deep at the high wall on the northwest face, more than half that depth is now filled with water.

When mining ended, pumps that kept the underground system, including the Berkeley Pit, dry, were turned off. The water here is natural ground water, and the pit is the lowest point in the water system—so everything underground drains to here, like a bathtub drain. And as in mines everywhere, when water contacts sulfide minerals in the rock it reacts to form sulfuric acid. The pH (acidity) of Berkeley Pit water is about 2.3, similar to stomach acid.

Water is currently entering the pit at about 1,800 gallons per minute, or 2½ million gallons per day, resulting in the lake's depth increasing by about ½ foot per month. At that rate, a **"critical water level"** —where ground water could flow away from the pit in the subsurface—would be reached about the year 2020. Before that happens, water will be diverted and treated in the water treatment plant that went online in 2003.

As you look across the pit from the viewing stand on Continental Drive near the east end of Mercury Street, you see a large building with what look like two green smokestacks. Those green cylinders are actually silos full of antacid: limestone, the same ba-

sic ingredient in over-the-counter acid reducers. Water flowing into the pit is treated there and sent to the Weed concentrator to help process ore from the Continental Pit to the east. The concentrator facility is named for Clyde E. Weed (1890-1973), a mining engineer who was President and CEO of the Anaconda Company from 1956 to 1964.

The water treatment plant, built and operated by ARCO as part of its remediation work in the region, reduced the rate of increase in pit water by four to six inches per month, and pushed the time the critical water level is approached back by several years. Eventually, the water treatment plant will treat pit water itself, but there is no plan to empty the pit of its 37 billion gallons of water. Treatment will simply maintain a status quo—and the pit will likely remain the deepest body of water in Montana, and treatment will be needed in perpetuity.

The story of a flight of several hundred snow geese landing in the pit and dying is true. Also true is some exciting new research by Montana Tech chemists Don and Andrea Stierle, who have isolated microbes unique to the pit water that show promise as bioactive agents against several forms of cancer.

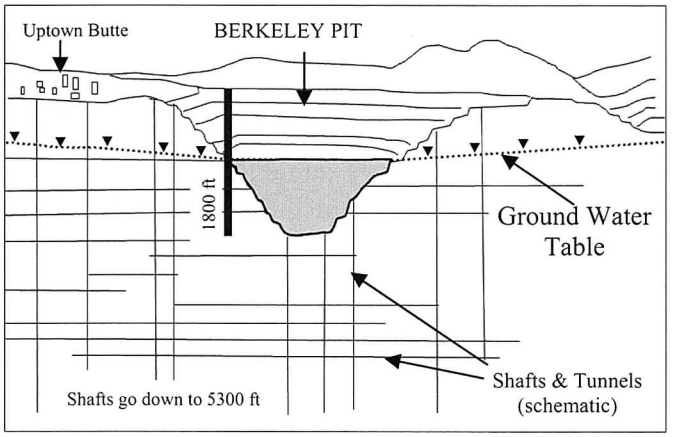
After the Berkeley Pit shut down in 1982, Butte's economy continued a downward spiral and many jobs disappeared. Mining returned, however, in 1986, when Montana Resources bought from ARCO some of the mineral properties formerly owned by Anaconda. They opened a smaller pit to the east, the Continental Pit.

Montana Resources' Continental Pit employs about 350 workers and moves about 55,000 tons of material per day—some of their haul trucks can carry 240 tons. The ore is low-grade, only about 0.3% copper, or six pounds per ton. The mine also produces molybdenum, an important alloying agent for steel, at not quite one pound of moly per ton.

The ore removed from the Continental Pit goes to the concentrator, where crushing and chemical flotation processes yield fine concentrates of molybdenum and copper. The concentrates are sold to metal traders and shipped to smelters and refineries in Belgium, Japan, China, and the United States for final production of pure metals. Some copper is also produced by precipitating it from Berkeley Pit water.

The Continental Pit shut down in 2000 because of low copper prices (around 60¢ per pound) and expensive electricity, but reopened in 2003 with a much more rosy economic outlook. Sustained surges in the price of copper (peaking at over $4.00 per pound in 2006) and molybdenum ($25-$35 per pound in 2005-2006, up from $2.60 per pound in 1999) are driven by third-world industrialization, especially in China and India.

Although in the early 1900s one-third of all the copper produced in the world came from Butte, vast reserves in Chile make that nation the world's copper leader today—Chile produces more than one-third of all the world's copper. For the entire 20th century, the United States was the leading consumer of copper, but in 2002 China took over that role. And for much of the 20th century, the US was self-sufficient in copper, but in 2007, the US was dependent on imports for 40% of the copper it consumed. Most of the copper imported into the US comes from Chile, Canada, Peru, and Mexico.



Berkeley Pit water system.
Modified from Pitwatch.org by Richard Gibson.

Berkeley Pit (1955-1982)
1½ miles wide • 1 mile across
1800 feet deep
900+ feet of water (2007) • pH ~2.3
Getting deeper at ½ foot per month

munities for generations. While many people remain bitter about the forced relocation, some appreciated the opportunity to move to neighborhoods on the Flats or on the West Side that were cleaner and away from the industrial aspects of the Hill, where in some cases mines and mine dumps were literally in many back yards.

Anticipation that the Pit would eventually expand to take out the entire uptown district led to serious neglect. It was difficult for building owners to care about upkeep or renovations when it was assumed that within a few years they would be forced to sell out at pennies on the dollar. This fear, combined with the ongoing economic decline, probably contributed to the many fires in Uptown Butte from the late 1960s to the 1980s. Several dozen fires claimed landmarks large and small. Of the fires, 14 were known to be arson, but no one was ever charged for any of the crimes. There was widespread presumption that they were insurance-fraud fires, a claim that was never proven and was vigorously denied. Other conflagrations likely came from the ongoing neglect—unused upper stories became storerooms for flammable materials in buildings whose electrical systems were perhaps 80 years old, or older.

In 1972, a detailed urban planning study was commissioned that accommodated the expected removal of the entire uptown district by relocating it to various "New Town" locations on the Flats or several miles west of town along Interstate 90. The plan accepted the idea that all of what is now historic Uptown Butte would have been lost.

The 1970s brought news with mixed blessings and blows for Butte. The Anaconda Company was nationalized in Chile. Over the course of 1969-1971, the Company lost about two-thirds of its copper production. Initially some felt



SAVED: The O'Rourke (Quartz at Alaska Street; see also page 124) was saved by volunteers who paid back taxes and commissioned a structural analysis of the building. Photo courtesy Butte CPR.

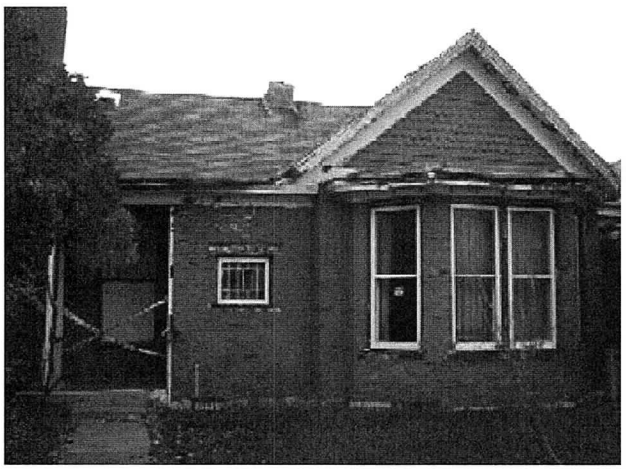
that this could be good news for mining in Butte, refocusing the Company's efforts locally, although that would have likely meant the end of Uptown Butte (see above). Nationalization in Chile and Mexico, combined with strong international competition and generally low copper prices proved to be too much for the Anaconda Company, and in 1977 the Company was acquired by the oil company, Atlantic Richfield (ARCO). The 1970s also brought the rise of environmental consciousness in the United States, and a century of bad mining practices in western Montana were seen in a new light—an unfavorable one. Within five years of ARCO's purchase of Anaconda, all mining operations ended; about 3400 miners lost their jobs when the Berkeley Pit closed for good in 1982-83. The high-priority Superfund site, extending from Butte 120 miles down the Clark Fork River, was established in 1983. During some of the darkest economic days in Butte, 1979 to 1985, a 90-foot statue was erected on the East Ridge: Our Lady of the Rockies was built entirely through volunteer contributions of materials and labor, at least partly as a symbol of hope.

The losses of the 1970s and 1980s were not without value. In a 1981 report to a Washing-

ton, D.C., conservancy group concerned about the destruction of resources of significant historical importance, Janet Cornish, Director of the Urban Revitalization Agency, wrote that "the problems of arson and vandalism have surfaced as a unifying force," in part as the community began to recognize the value of historic structures to economic development. Combined with ARCO's announcement in 1978 that any expansion would not "take out the uptown," a signal seemed to be sent that uptown Butte's historic buildings were worth saving.

Expansion of the East Berkeley Pit by Montana Resources Co. returned mining to Butte in 1986, but never on the scale of earlier years, and the population continued to decline until the 2000 census indicated an increase of 665 over ten years earlier. Tiny, but the first population increase in a census since 1920.

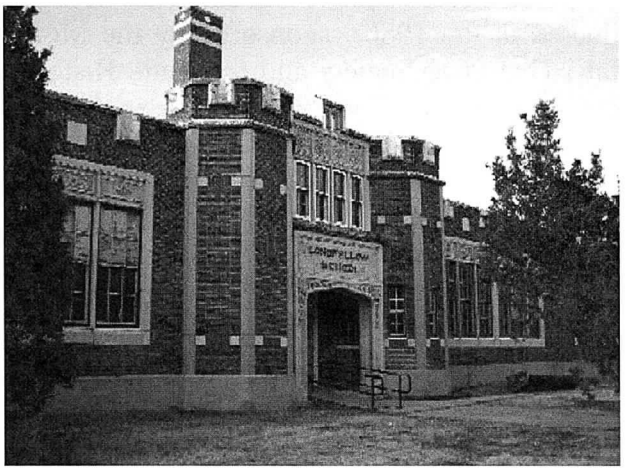
In 1961, soon after the National Park Service began the National Historic Landmark program, Butte was designated a NHL, and it was expanded in 1972 so that it included some 4,000 contributing properties. A comprehensive inventory of historic properties was conducted in the 1980s, sponsored by the Montana Historical Society and the Butte Historical Society. A 14-year effort to expand the landmark to include Walkerville and Anaconda, under the theme of American Labor, was led by Ellen Crain (Butte-Silver Bow Public Archives), Chere Jiusto (Montana Preservation Alliance), and many others, culminating in the March 2006 announcement of the Butte-Anaconda National Historic Landmark. The 174-page text of the NHL expansion nomination, written mostly by historian Derek Strahn, is available at www.nps.gov/history/nhl/designations/samples/mt/Butte-Anaconda.pdf.



LOST: The demolition of the miner's cottage at 516 West Granite Street in 2005 created a hole in an otherwise mostly intact streetscape. More than 300 historic properties were lost between 1961 and 2006. Photo by Richard Gibson.

The establishment of the World Museum of Mining in 1963 by Butte's Exchange Club announced a deep appreciation for Butte's heritage – both the physical artifacts, ranging from drill bits to entire buildings, and its wildly diverse culture.

Other developments focusing on historic preservation and interpretation of the rich cultural heritage of Butte included the establishment in 1994 of a grass-roots group, Butte Citizens for Preservation and Revitalization (Butte CPR). That group has granted over $23,000 in assistance for facade improvements that honor the historic character of Butte's buildings, and has conducted educational tours, repair workshops, and written informative newspaper articles. Butte CPR (especially member Mitzi Rossillon) was also instrumental in the creation of a developer's packet procedure for finding owners for properties the county had obtained through tax delinquencies; some properties have sold for as little as $500 and have been rehabilitated and returned to the tax base. Developer's packet sales have ranged from simple miner's cottages to the four-story circa-1910 Sears Building (32-40 East Granite Street), acquired for $10,000 and now (2009) undergoing a multi-million-dollar refurbishment by a private developer. Actions by Butte



LOST: The 1917 Longfellow School, on the Flats west of Harrison Avenue in Butte, was demolished in 2007-2008 despite the new historic preservation ordinance. The building was one of only 16 individually listed National Register properties in Silver Bow County. Photo by Richard Gibson.

CPR have also saved—at least temporarily—a number of historic buildings in Uptown Butte, including the Acoma (Broadway at Wyoming Street), the O'Rourke (Quartz at Alaska Street), and the business block at Park and Wyoming Streets. Butte CPR volunteers also started and continue to develop an on-line collection of photographs and written histories of local buildings, Virtual Historic Butte (wiki.buttenhld.org).

The Mai Wah Society was established in 1992 and acquired two important buildings in Chinatown. It promotes and interprets Asian cultural heritage in the Intermountain West. The Butte-Silver Bow Urban Revitalization Agency sponsored an archaeological dig in Chinatown during the summer of 2007; some of the more than 60,000 artifacts uncovered will ultimately be displayed and interpreted at the Mai Wah Museum. The Montana Gaelic Cultural Society sponsors the annual An Ri Ra Irish Festival, as well as popular immersion programs in Gaelic language and culture. The presence of the National Folk Festival in Butte (2008-2010), the first time in 40 years the festival has been west of the Mississippi, has provided impetus for promotion and preservation of history – the main stage is beneath the Original Mine Headframe.

In 2004, the historic speakeasy beneath the sidewalk at the Rookwood Hotel was rediscovered. Historians were aware of the presence of this space, but it had been neglected for decades. Appreciation for Butte's historic past was reviving, and within weeks the speakeasy was opened as a museum. The tour company that was spawned from this rediscovery now organizes excursions throughout Butte, with emphasis on historical accuracy, including guided tours of seven privately restored historic spaces.

Although Butte had a historic preservation ordinance, it had no significant teeth until a new comprehensive ordinance went into effect in March 2007. The new ordinance established a Local Register for historic properties with clear and specific guidelines for adherence to design codes, and also empowered the 7-member Butte-Silver Bow Historic Preservation Commission (HPC) to review all demolition requests on historic properties every-



STABILIZED: The Dumas Brothel (45 East Mercury Street; see also page 107) got a new roof and critical interior masonry restoration in 2007-2008—a $37,000 project funded mostly by private donations. Photo by Richard Gibson.

where in the County except Walkerville. The HPC also applies its design review to historic properties that receive financing through local government organizations such as the Urban Revitalization Agency.

In 2006 and later, final settlements of lawsuits for environmental damage brought under the Superfund law decades earlier began to provide significant monies for Butte to restore and remediate some of its environmental problems. A citizen panel established in 2006, the Butte Restoration Alliance, studies problems and advises the city-county and other groups on recommended priorities on issues broadly related to restoration, including historic preservation, recreation, neighborhood enhancement, and environment.

Despite some hard-fought losses and incomplete streetscapes, Butte retains a remarkable number of its historic homes and commercial buildings. The biggest battle locally is probably in convincing residents of the value of the whole, and how it far exceeds that of an individual house which most might perceive as "common," even worthless. Conferences like the Vernacular Architecture Forum provide evidence of the appreciation for and lend credibility to the study of simple miner's homes and other vernacular landscapes.

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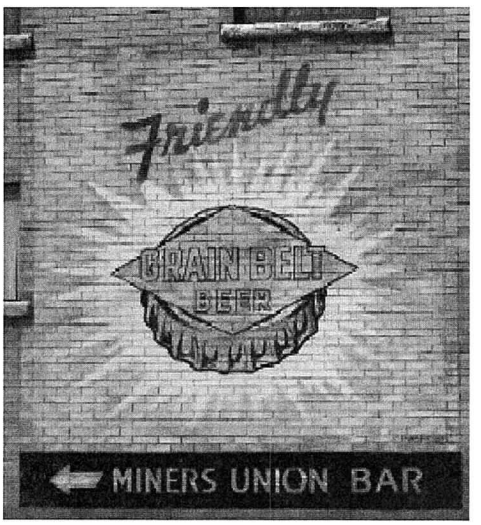
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See also Quivik, this volume, p. 11.





IN PROGRESS, 2009: The historic business block at the southwest corner of Park and Wyoming Streets has lost its roof, but aggressive efforts to save it and return it to use are in the works. Left photo shows detail of ghost sign—the Miners Union Bar was in business from 1942 to 1954. Photos by Richard Gibson.

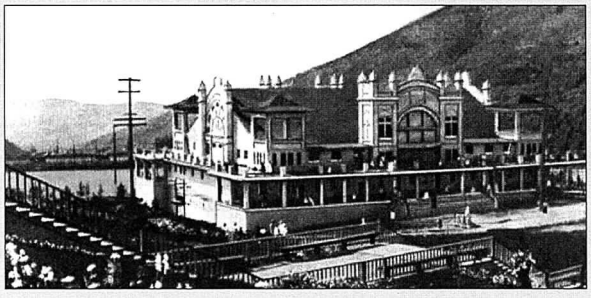
COLUMBIA GARDENS

Of all Butte's losses to whatever cause, the greatest loss to the community, most sorely missed, was the Columbia Gardens. Built in 1899, this amusement park at the base of the East Ridge provided respite to the trials of mining. Thursday was children's day, but the park was used at all times. Its dance pavilion and roller coaster were important landmarks. The park closed in the fall of 1973 in the wake of anticipated mine expansion. Most of the structures burned later that fall, even before mining could remove them.

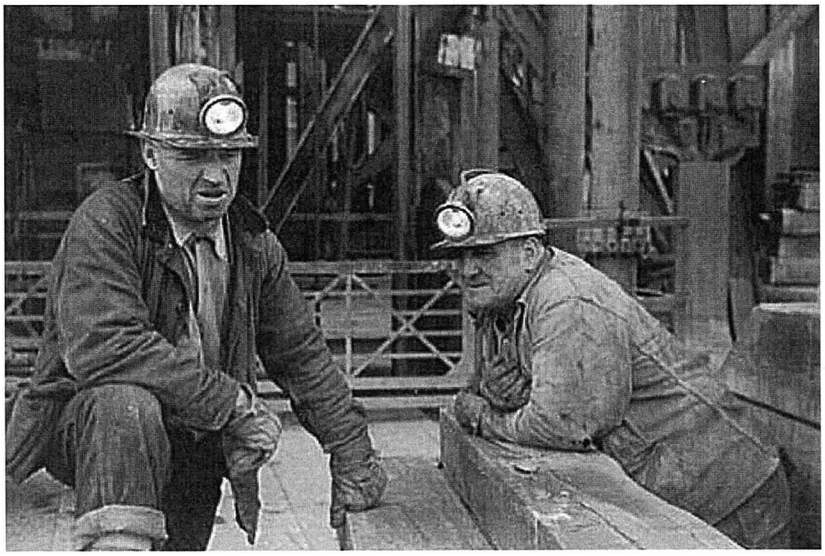
Reference

Butte's pride, the Columbia Gardens, by Pat Kearney (1994)

—Richard Gibson



Columbia Gardens pavilion, from an old post card.



Copper miners in Butte. Photo by Arthur Rothstein, summer 1939. Farm Security Administration, LC-USF33- 003110-M5.

The Finney House in Nevada City, Montana and the Notion of Heritage Transformation

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The early Rocky Mountain mining camps displayed environments dramatically transformed by temporary occupants in their search for wealth in the form of gold or speculative ventures of various kinds. As such, the development of any given mining camp was inextricably linked to the magnitude and quality of its mineral deposits. Paralleling a camp's rite of passage from tent town to an established urban center or, if unsuccessful, a ghost town, peoples' destinies and a region's cultural identity lay in the balance. The so-called "Finney House" in Nevada City, Montana offers a layered contextual view important to our understanding of the ten gold mining camps that stretched fourteen miles along the ore-rich Alder Gulch (fig. 1).[1] This essay explores the transformation, over time, of the changing fortunes and identity of Place through one of its built resources. In doing so, the mission of heritage conservation is re-examined through the lens of *heritage transformation.* This perspective speaks to the importance of the collective histories embedded in a site, as opposed to the conservation principle of an historic resource being a "closed container for history." [2]

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Special thanks to the other members of our team: Professor Thomas Hubka, The University of Wisconsin, Milwaukee; Dr. Kirk Ranzetta, Adjunct Professor, University of Oregon and Project Scientist/Architectural Historian for Entrix Environmental Consultants; Randall May Heath, Associate Professor Emeritus, the University of North Carolina, Charlotte; and Leslie Jehnings, Graduate Student in Historic Preservation, University of Oregon.



Fig. 1. July 4, 1865 photograph of Nevada City, looking north. The Finney House is not discernable but the photo indicates a larger number of mining cabins situated around the commercial core. Source: Montana Heritage Commission Archives.

PERIOD I: Formative Years of Virginia City and Nevada City

What is now southwestern Montana underwent exponential development and multiple cartographic identities within just two years. At the time of the first major gold strike in July 1862 on Grasshopper Creek, "Bannack City" was actually a part of Washington Territory. By March 1863, Bannack had been shifted to the Idaho Territory, only to be redesignated fourteen months later as the territorial capital of Montana Territory through the legislative efforts of Judge Sidney Edgerton.[3] Such was the speed and magnitude that distinguished urban development on the mining frontier.

Seventy-five miles east of Bannack, prospectors William Fairweather and Henry Edgar unwittingly stumbled upon some of Montana's richest gold deposits as they panned for enough "color" for tobacco money.[4] On May 26, 1863 snow was melting off of the Ramshorn (now Tobacco Root) Mountains and filling Alder Gulch with spring runoff. Virginia City and nearby Nevada City were about to be born.

In the wake of the twelve mining claims and water rights staked out by the Fairweather party on May 30, 1863, some two hundred "stampeders" relentlessly followed the Fairweather party as they returned to Alder Gulch from Bannack with rumors of a horse-load of gold with which to purchase provisions for new diggings. The rush was on. By June 2, 1863, this new infusion of mining hopefuls from the gold camp of Bannack had staked their claims and set up camp. As an early Montana historian, N.P. Langford, described the situation: "Hundreds of tents, brush wake-ups [wikiups] and rude cabins ..." were scattered through Alder Gulch, changing the landscape as trees were cut, and alder and cherry brush cleared to provide wood for the rockers, shelters, and heating fuel.

Much has been written about Virginia City and the subsequent growth of the other camps that lined Alder Gulch in the months following the initial strike. Little, however, has been written on the specific nature of the architectural development of these camps beyond the extensive focus on Virginia City—a National Historic Landmark.[5] Nevada City, one of the satellite mining camps of Virginia City (and aspirant for Montana's first territorial capital when President Lincoln signed the bill on May 26, 1864), is located a mile and a half to the north. Today, an extant row of what began as miners' cabins (presently known as the Finney House, the Finney summer kitchen, and the Richard cabin) were constructed between 1863 and 1864 as part of the burgeoning camp. These architectural resources represent three of the remaining eleven Nevada City buildings to survive the various stages of Nevada City's evolving history (figs. 2-6). Collectively, they stand as exemplars of first period settlement residences and adapted frontier forms expressive of one of Montana's earliest mining enterprises.

A July 4, 1865 photograph of the east side of Nevada City depicts a well developed commercial and residential district just two years after the initial staking of miners' gold claims (refer to fig. 1). Such images of bustling activity and commercial development as depicted above are misleading, though, with regard to urban self-sufficiency and social well- being during the first years of a camp. Unlike agricultural settlements that gradually developed an infrastructure for the provision of daily needs and civic operation, the isolated camps that sprang up wherever mineral riches were discovered were totally dependent upon supplies transported into the camp at inflated prices either by "jerk lines" (mule teams con-

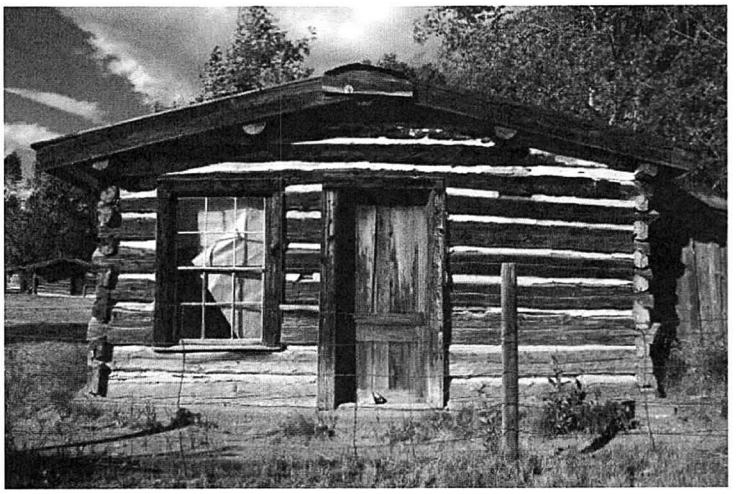


Fig. 2. West Elevation, Finney Summer Kitchen. Photo: K. Heath.

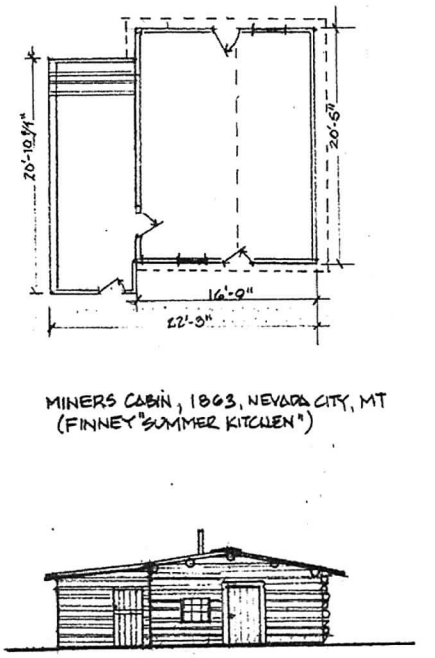


Fig. 3. Finney Summer Kitchen, drawing, east elevation and plan. Drawing: Nevada City Research Team.

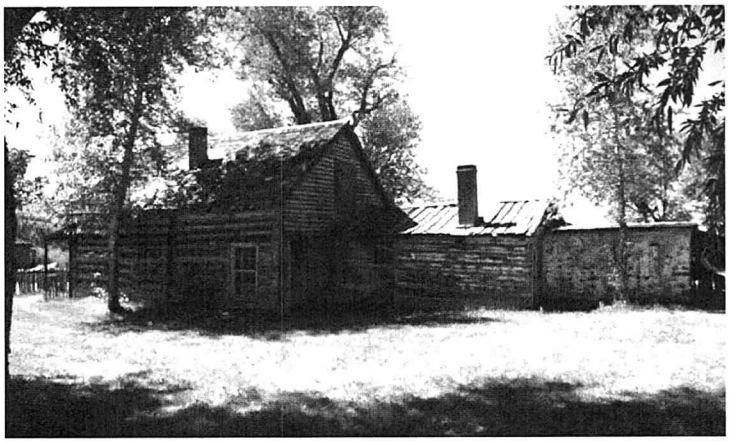


Fig. 4. View, Finney House with accretions, looking northwest. c. 1864 cabin located at center. Photo: K. Heath.

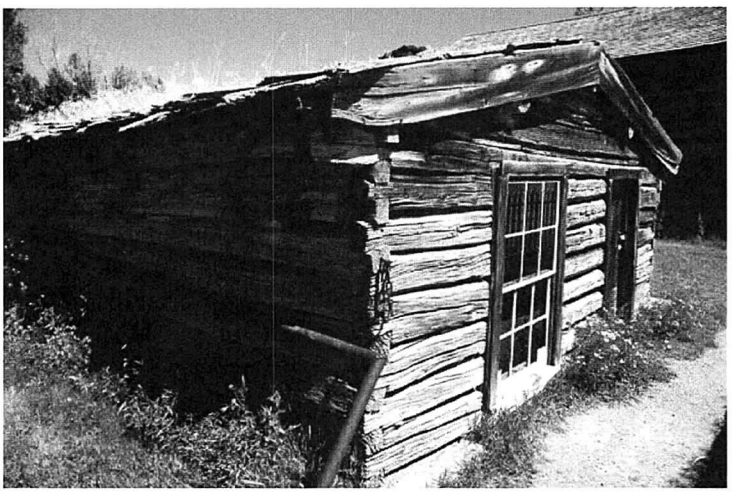


Fig. 5. View looking southeast, Richard Cabin c. 1863-64. Photo: K. Heath.

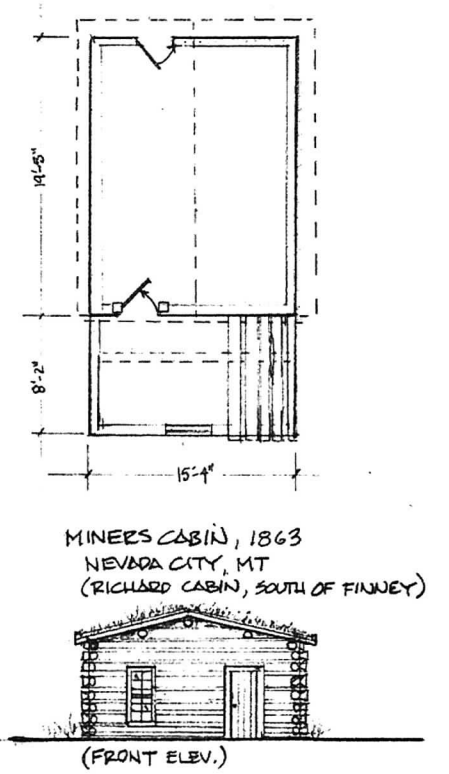


Fig. 6. Richard Cabin, east elevation and plan (oriented east-west). Drawing: Nevada City Research Team.

nected by long reins), horse string lines, or, when roads permitted, freight wagons.[6] There were large profits to be had by "mining the miners."

Accordingly, by early 1864, George P. Dorris built a two-story building on the corner of what would become the main intersection of Virginia City defined by Wallace and Jackson Streets.[7] Where once string and jerk lines made their way into the fledgling camp with supplies, other merchants quickly joined Dorris' initial venture and defined a linear path of commercial enterprises that straddled the major roadway leading to and from the diggings. Heavy freight wagons, preceded by eighteen to twenty yokes of oxen, often blocked the main thoroughfare of Wallace Street off-loading goods to the rudimentary shops, or auctioning the goods off in place.

Virginia City's population—during its one-year transformation from tent town to boom town—supported various businesses (many operated by Jewish merchants) including a bakery, saloon, blacksmith shop, brewery, hotel, restaurant, and livery stable. Such descriptors for commercial growth belie the overall shoddiness with which these first business enterprises were constructed, because the owners of these expedient enterprises did not focus on town building; instead, they aimed at providing necessary services before other competitors did. No one knew when the ore would run out. Generally, both the miner and merchant wanted to make their fortunes and return to the "States" with their financial security assured.

To achieve that goal, getting supplies, passengers, and mail in and out of the camp by the most efficient means was of critical importance to the daily survival of the mining community. To serve the pressing needs of the mining camp, traders and teamsters were among the early arrivals. One of these teamsters was Frank Finney, the future occupant of the Fehring log cabin in Nevada City.

By 1864, it is estimated that ten thousand people lived and labored along the fourteen miles of the Alder Gulch diggings. To accommodate their expanding construction needs, milled lumber from Cover and Perry W. McAdow's lumber mill on Granite Creek, the Kohl lumber yard at the foot of Wallace Street, and Anton M. Holter's White Pine Lumber Company yards in Virginia City and Nevada City were established.[8] In addition, quarry stone, a water works, Montana's first newspaper, *Montana Post*, and subscription schools served Virginia City and Nevada City at this juncture of the camp. While commercial pragmatism and, occasionally, pretense began to transform the outward appearance of Wallace and Jackson Streets as a result of improved building materials, the residential realm clearly lagged behind. The Reverend Hough described the urban maturation of Virginia City by early 1865 as follows: "... a city of ten thousand inhabitants, and not a frame or plastered house in it, but consisting of tents, 'dug-outs' and log cabins, mostly with dirt roofs and no floors."[9]

Though many mining and commercial interests were diverted 125 miles north after the new gold discovery in Last Chance Gulch (later Helena) on July 14, 1864, the supremacy of the Alder Gulch diggings is evidenced by the relocation of Montana's Territorial Capital from Bannack to Virginia City on February 7, 1865. Legislative meetings were held in various rented rooms along Wallace Street. Virginia City's population was at its peak with about 5,000 inhabitants animating the yet ill-defined grid pattern of its streets.

It has been estimated that by 1866, sixty million dollars in gold had been removed from Alder Gulch through placer mining and, to a lesser degree, lode mining.[10] Lode mining began in January 1864 in Summit to the south of

Virginia City; an 1866 stamping mill (*stamps* were the huge piston-like shafts used to pulverize the rock in quartz mining) is extant in Union City also south of Virginia City. The following year, hydraulic mining (first developed in California in 1853) used pressurized water to wash away large amounts of gravel and dirt from rock formations through sluice boxes. Sluice boxes were a larger version of the rocker that was comprised of wooden "boxed" sections about fifteen feet long and one to four feet wide. Arranged on an incline so that water could wash down the box, gold —due to its greater specific gravity—sunk to the bottom as it washed over riffles along the box. The dramatic introduction of hydraulic mining—as both a technologically more efficient, but mineral wasteful, mining strategy—signaled the shift from the collective, unpredictable, efforts by individual prospectors that marked the early days of the strike to corporate investors and paid employees working for premium wages of six to eight dollars a day.

Nevada City residents faired no better than those of Virginia City when it came to living accommodations. It, too, had a bakery, a brewery, a lumberyard, a "livery, feed, sale, and stables," along with a multitude of other businesses. Stage service stopped there three times a week along the Virginia City-Utah Road. Its cabins, on the other hand, were strictly rudimentary shelters, providing momentary respite from the long arduous days of placer mining. Floors were of tamped earth, windows of muslin cloth, heat provided by sheet metal and cast-iron stoves, and roofs of saplings tightly bunched together to limit seams and covered with canvas or buffalo hides, then stacked with heaps of dirt within a framework of sapling "nailers." Both the Richard cabin and the Finney summer kitchen measured approximately sixteen by twenty feet each with an offset door and one flanking window to its left. The half-dovetail jointed log cabins faced the main street (west), used split saplings as chinking with clay daubing to seal the thermal leaks between the logs. Roof pitches were low to maximize interior heat during winter months and to limit the run off of piled soil (see figs. 2 & 3, 5 & 6).

According to the 1870 Government Land Office plat map, another sawmill was built, this time in Junction City, a few miles north of Nevada City. This mill likely provided planks for sluice boxes, as well as flooring (in lieu of tamped earth), sawn siding and roofing material for the rude cabins of the initial settlements. [Improvements, such as the board-and-batten roofing added to the new roof pitch of the Fehring cabin in Nevada City likely came about through the local availability and, presumably, lower cost of such materials by the 1880s.]

The 1870 government map's designation of the "Road to Helena" for the former Virginia City-Utah Road was perhaps foreboding, for the U.S. Census of that year registers only 867 residents in Virginia City. A demographic shift appears at this juncture, as well, as fully one-third of that number was comprised of Chinese hired as day laborers to work the sluice boxes. Some worked abandoned claims on their own, while others were hired as house servants or operated camp laundries, gambling dens, and brothels. The Chinese population was spatially segregated to the lower end of Wallace Street, where the lumberyard and "red light" district were. Extrapolating from the decline of Virginia City's population figures (re-enforced by oral testimonials and reminiscences from Montana pioneers), it can be surmised that Nevada City's population declined commensurately.

PERIOD II: 1877-1883 (The John Fehring Cabin, Nevada City)

The same 1870 U.S. Federal Census (p.22) lists Frank Finney, a miner age thirty-three of Vermont, owning $1000 in real estate and being in possession of $150 of personal property. Over the next five years, two more children, Cora and Alfred, joined their two older siblings (William, b. 1865, and Thomas, b. 1867; Thomas, however, did not survive into adulthood). While the Finney family expanded, Virginia City's own population continued to dwindle throughout the 1870s, prompting the relocation of Montana's territorial capital to Helena in 1875. Virginia City, the county seat of Madison County since 1864, returned to that status alone. In recognition of its new political designation, and perhaps to bolster its wounded pride, Virginia City citizens elected to build a formidable brick county courthouse in the then popular Italianate style. Designed by local architect Lorne B. Olds, the courthouse was completed the following year.

Since Nevada City was never platted, little documentation exists on the study area prior to Lawrence and Amanda Fenner conveying the property presently known as the Finney House to John Fehring for one dollar in 1879. What *is* known is that Fenner owned the parcel sold to Fehring as part of a quarter section (160 acres) land holding that Fenner acquired in 1878 from a federal mineral patent. Fenner was listed as a miner in the 1870 census, and apparently took advantage of Nevada City's depleted population by acquiring land, and more importantly, mineral rights. Lawrence (also spelled Laurence) Fenner and his wife, Amanda, lived in Nevada City. Their neighbors were John Fehring, and Frank and Mary Finney and their family. The one dollar friendly sale, therefore, to Fehring may have been in response to payment for site improvements (in the form of a log cabin) made prior to the parcel being officially registered under the federal mineral patent. No doubt, Fehring built his cabin in the feverish days of the 1863 strike with little thought of laying legal claim to the land upon which his cabin was built. The pressing issue for miners was proving up on their mining claims, not homesteading. The "Finney House" was likely built by John B. Fehring between 1863-1864.[11]

By way of background, Lawrence Alexander Fenner was born in 1837 in Durham, New York. He was formally trained as a civil engineer. In 1860, he joined the gold rush to Pike's Peak, Colorado, spending four successful years doing placer mining. It is reported that his land holdings there were later incorporated into Leadville, Colorado, but that he had sold all of his properties prior to the increase in land values. He moved to Virginia City in 1864 and invested in some placer claims. Fenner married Amanda Spicer in 1870. The U.S. Federal Census for 1870 (p. 24) lists Lawrence A. Fenner, a miner of New York, Amanda Fenner, "keeping house" (age 24) of Pennsylvania. The married couple is listed as owning no property by that date, but having personal property valued at $500. John Bernard Fehr-ing was born in Germany in 1828 and, like Fenner, was involved in mining throughout the West, in San Francisco, Nevada, and Montana.[12] German inhabitants were second only to the Irish in the early years of prospecting along the Gulch and during the mercantile development along Virginia City's commercial corridor.

John Fehring, as has been noted, retained his log cabin (now legally conveyed to him by Lawrence Fenner for one dollar as part of the 1877 land patent).[13] The metes and bounds of the property spatially defined a large lot whose sides measured 72', 200', 75', and 200'. Given the physical evidence of the current so-named Finney House, the middle log section probably dates to the circa 1863 Fehr-

ing building, for it retains many of the construction features common to miners' cabins constructed during the early camp stage: low-pitched roof to retain snow pack for heat retention inside the cabin, few windows, a brick chimney flue set over a wooden cabinet, and single-story log walls set on random rubble footings (see the center section of fig. 4).

Though Virginia City's population dropped to 634 in 1880, the arrival of the Utah and Northern-Union Pacific Railroad into Montana (via Dillon near Bannack) one year later revitalized lode mining along the Gulch. The main line connected Corrine, Utah to Butte, Montana (by the 1880s a leading corporate mining stronghold, having gone from gold mining in the 1860s, to silver, and finally copper mineral extraction). The Utah and Northern-Union Pacific Railroad was the first to enter the territory in December 26, 1881, followed two years later by the completion of the Northern Pacific Railroad on September 8, 1883.

Anxious to profit from the renewed mining activity in the area and the business potential of a structure located opposite a well-traveled wagon and stage road to Helena, Fehring likely converted his log dwelling into an income-producing property. It is conjectured that to maximize the wagon-loading capacity of the site that the cabin was moved further back on the lot. In addition, a vertical board-and-batten false front was affixed to the gable-ended facade, and the roof pitch increased. The new board-and-batten roofing material encased the former dirt roof. Both the evidence of the original roof pitch and soil roofing material is extant under the later roof. A portion of this false front still exists at the northwest entrance to the circa 1864 Fehring cabin (see figs. 7, 10, 11). Evidence of a circa 1881-1886 newspaper, used as backing material for the new false front, is located at the northwest corner of the cabin section.

PERIOD III: 1883-1891 (The Coad/Code Family Occupation)

Perhaps in response to the new, but unpredictable, economic interest in Nevada City, Fehring sold the dirt-roof log cabin located immediately south of his cabin/store (referred to as the "Richard" cabin currently) to Ferdinand Quivereaux for forty-five dollars[14] (see figs. 5, 6). Soon after the sale of the dirt-roof cabin to Ferdinand Quivereaux, Fehring sold his store and lot in December 1883 to a Mrs. Louisa Coad for $400,[15] liquidating his holdings in Nevada City entirely.

Coad's husband, Samuel Coad (also spelled Code) and his brother-in-law Richard arrived in America from the mining area of Cornwall, England in 1862. They came to Alder Gulch in 1868 and "worked the sluice boxes," likely as day laborers. Prior to the date of the purchase of the Fehring cabin/store, the Coad family lived in a one-room dugout built into a hillside on squatter land in Varney, Montana. According to reminiscences of a family member, the Coad family "built a three room log home [in Nevada City]."[16]

This description could pertain to the log false-front cabin the Coads purchased from Fehring, and a new one-story, two-room addition to the front, obscuring most of the former false-front structure behind. This addition may very well have been built from logs appropriated from an abandoned cabin as a result of the depopulated Nevada City mining camp, explaining the filled-in door or fireplace opening on its southern log wall. Such cabins were often moved or cannibalized for their seasoned logs in this deforested area.

Additional alterations were forthcoming. The 1883 and 1884 newspaper backing on the second floor of the Louisa Coad house suggests the construction date for a second floor expansion soon after the purchase date, and adds



Fig. 7. Structural evidence, false-front addition, looking southeast. Photo: K. Heath.



Fig. 8. Finney House, west elevation. Photo: K. Heath.

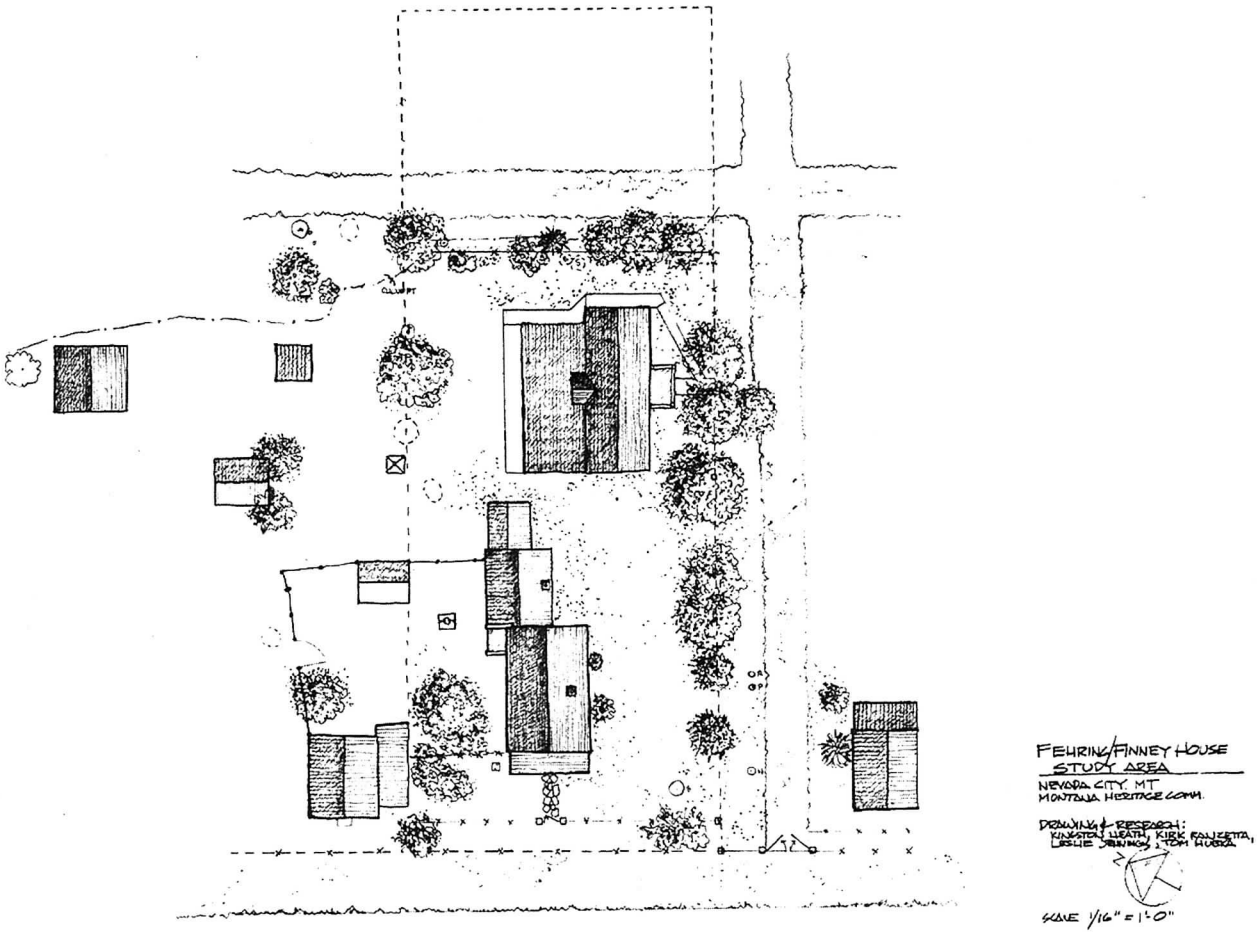


Fig. 9. Finney House Study Area, site plan. Drawing: Nevada City Research Team.

credence to the presumption of an adapted building form. The presence of perhaps two other resident boarders besides her husband—brother-in-law, Richard, and Samuel's business partner, Joseph Whitehead—may have prompted the expansion. A four-foot-high log knee wall and a common rafter system provided two second-floor bedrooms. There is a noticeable change in the log end-notching on the upper logs of the knee wall as compared to the earlier wall beneath it. On the south knee wall of the front bedroom, beneath one layer of muslin and one layer of fabric, and attached directly to a horizontal sheathing plank is the remnant from the *St. Louis Christian Advocate* newspaper, a publication of the Methodist Episcopal Church based in St. Louis. The newspaper is dated October 31, 1883. A labeling strip attached to the newspaper reads, "Mrs. Lucy Code." These two attic bedrooms, connected by an interior door, were likely accessed through the outside rear stairs, as evidenced by the "ghost" framing marks against the east end of the wall just below a second-story plank door. At the foot of the stairway evidence is another filled-in door—this time cut into the south wall of the former false-front log building from the Fehring build; it is likely that this entry provided access to a large kitchen for the four (?) adult residents (Refer to Fig. 4).

It is clear that the Coads viewed their home in broader terms than their immediate domestic needs, for just as the second floor expansion of their home was being undertaken in 1883, Samuel Coad and Joseph Whitehead purchased the lot immediately to the south of the Quivereaux ("Richard") dirt-roof cabin. However, fate stepped in and Samuel Coad died in 1889. The Coad estate subsequently sold the lot to Alicidi Richard.[17] The same year, Richard acquired the dirt-roof cabin from the probated Ferdinand Quivereaux estate; the cabin now adjoined Richard's recently purchased lot to the south. [18]

PERIOD IV: 1891-1951 (The Finney Family Era)

Louisa Coad eventually sold her home in 1891 for the original purchase price of $400 to Frank Finney.[19] Though Frank Finney first arrived in Virginia City shortly after the initial gold strike and is listed in the 1870 Federal Census as a miner, by the 1890 census he is listed as a teamster. Born in Rutland, Vermont and married to Mary Finney from Ireland, the family of five moved into the expanded Coad log residence and began to shape it in *their* image.

The timing was good. Silver and gold prices had risen during the 1880s and the early part of the next decade. Following the downturn in metal prices during the Panic of 1893, technological advances in mining coincided with the economic recovery by the end of the decade and supported economic growth in the Gulch as mining was once again revived. The most significant technological shift in placer mining methods along Alder Gulch was large-scale dredging. The Conrey Placer Mining Company based in Boston, Massachusetts established an office in Virginia City in 1898 and constructed workers' housing in Ruby. Dredging operations along Alder Gulch took place generally between 1899 and 1922. These were large floating dredges.

This era of mining efflorescence, however, came with long-term costs. The combined dredging efforts going back to 1899 destroyed even more land features, created dredge pools, and destroyed many of the earliest mining communities in Alder Gulch, including the western commercial edge of Nevada City. In contrast, Virginia City survived relatively intact during this era, because the town had been established away from the areas containing gold-bearing gravel.

This era of renewed mining activity benefited

Frank Finney who, along with his son Alfred, transported goods. Finney trucked coal from the town of Alder to Virginia City, wood from Granite, other merchandise to the adjacent communities and, quite possibly, to the Conrey dredging camps.[20] This era of prosperity was reflected in improvements to the Finney home. Providing a public face to the street, the Finneys added clapboards over the west facing log wall, disguising its more humble beginnings; built a front porch with simplified "Tuscan" piers; and terminated the gable with scrollwork (fig. 8). Wooden fences enclosed the lot and rows of cottonwood and willow trees were planted on either side of the house, declaring the dwelling's polite residential status in the midst of a disrupted and, undoubtedly chaotic, landscape.

Paralleling these minor, but meaningful, aesthetic treatments were the enduring pragmatic demands common to western agrarian life. The Finneys kept horses and cows in a fenced work yard immediately to the north of their home (fig. 9). An extant fieldstone well provided water to the kitchen through the side entrance off of the work yard, provided water for washday, and offered easy access for watering livestock. A clothesline was positioned in the work yard as well. In keeping with local land use patterns, the former 1863-4 miner's cabin (perhaps the Finney's earlier residence) to the north of the Finney house became the summer kitchen; it was defined as part of the Finney house complex by being enclosed as part of the fenced yard. Both as a part of the family's food-ways system and as a means of providing additional household income, a stone cold-storage room was added to the east end of the kitchen (the original Fehring miner's cabin). Here, Mary Finney made and sold butter, cream, and cheese (see the far right of fig. 4).

With regard to the house plan (fig. 10), with three children and two parents living in the home, there was a dividing wall in the middle first-floor room between the front "parlor" and the kitchen. It is believed that the window of the middle room provided light and ventilation for the parent's bedroom. The middle room was also papered, as evidenced by the wallpaper remnants in the closet under the stairs and behind the beaverboard covering on the north hallway wall. Opposite this room to the north was a small bedroom (perhaps for the Finney's daughter, Cora). A hallway separated the two bedrooms and linked the kitchen to the front (street-facing) room off of the porch. The two boys, William and Alfred, likely occupied the two upstairs bedrooms built by the previous occupants, the Coads.

Under corporate pressure from the Conrey Placer Mining Company, the Northern Pacific Railroad ran a feeder line to the town of Alder -- nine miles outside of Virginia City. The line stopped short of Virginia City because of the dredging operations that were in place.[21] In addition to dredging operations that continued into the 1920s, small crews that leased mining claims were working lode claims in the first decade of the twentieth century. By 1915, the Conrey Mining Company, with the aid of two electric dredges, posted their best year bringing in $800,000. However, with the suspension of dredging operations by the Conrey Mining Company in 1922, lean days followed along the Gulch. The glow of the mining days was finally beginning to dim, and early participants that helped to establish the character and social history of Alder Gulch passed with it.

Both Lawrence Fenner and Frank Finney died in Nevada City in 1915 and Cora Finney moved from Adobetown to Nevada City to take care of her mother. On April 23, 1922 Mary Finney passed away at age eighty-three. William, the Finney's oldest son, Cora, and her youngest brother, Alfred, continued to reside in the family home. Electricity was

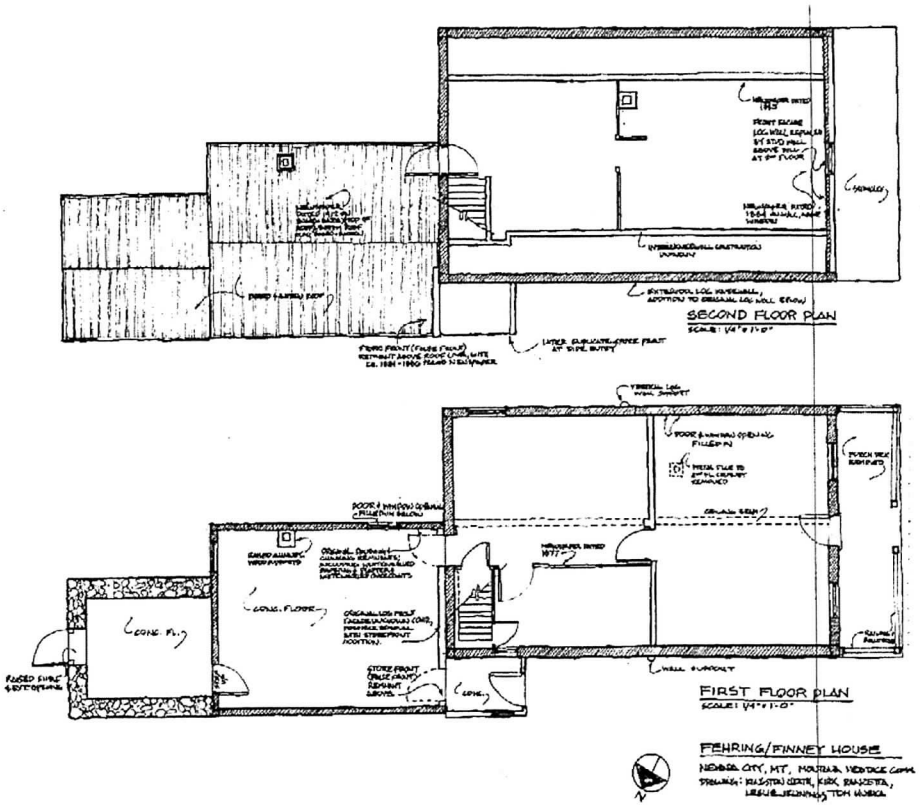


Fig. 10 (left). Finney House, first and second floor plans, current configuration. Drawing: Nevada City Research Team.

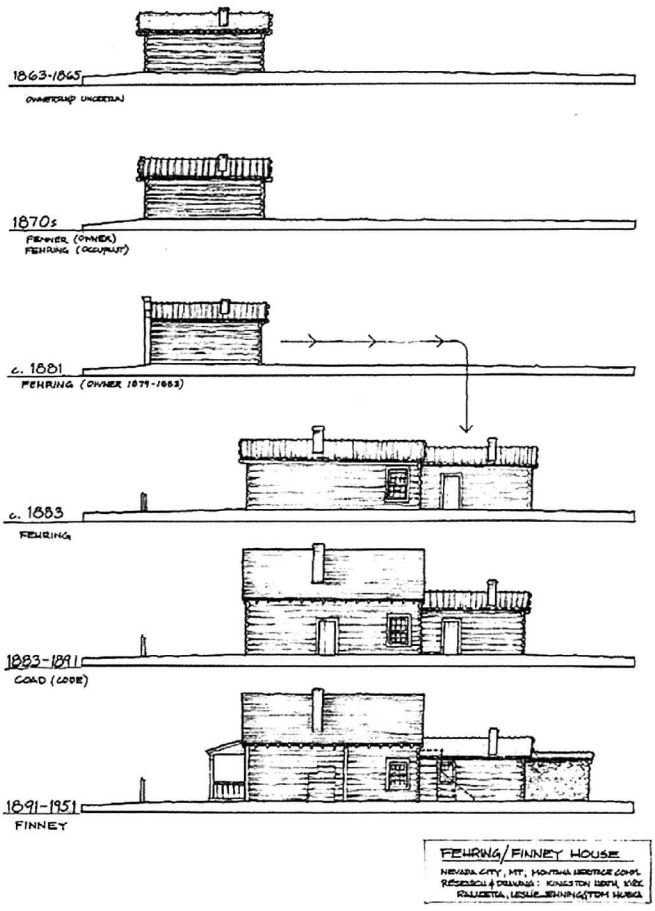


Fig. 11 (right). 1863-1951 Building sequence drawings. Drawing: Nevada City Research Team.

added, a makeshift shop built in the work yard, and a plank-frame addition was built onto the southern end of Finney's summer kitchen at some point during the twenties and thirties. In 1935, William died. Perhaps responding to the need for subsistence farming to support the family during the Depression, the two adjacent parcels to the south owned by Richard were purchased in 1936 by the Finney estate.[22] On July 27, 1936, and again on April 16, 1937, Alfred signed a quit-claim deed for one dollar for his share of the Finney family home and the two adjacent lots to his sister, Cora (see fig. 9).[23]

As happened during the previous 1893 economic panic, lode mining was revived during the Great Depression as gold prices climbed. The Humphrey's Gold Production Company from Denver undertook dredging from 1935-1937 and again between 1940 and 1941, until a 1942 United States Executive Order suspended gold mining as part of the war effort. Though silica mining continued, Virginia City's population fell to 380.[24] Alder Gulch's best days were over.

Sensing the imminent loss of Montana's frontier-era mining heritage as Alder Gulch buildings were being burned, vandalized, or dismantled for materials, Charles Bovey, prominent Great Falls, Montana rancher, breakfast cereal heir, and State legislator from 1942 to 1946, turned his attention to heritage conservation. Following in the tradition of other post-World War II museums that endeavored to tell America's story through buildings, artifacts, and education in the East (e.g. Plimoth Plantation and Sturbridge Village, both established 1946 to 1947), Bovey purchased an 1868 house in Virginia City in 1946 and began its restoration. Between 1946 and 1978, Bovey and his wife, Sue, developed one of the first privately supported open-air museums in the West. Among his acquisitions were the Finney properties, purchased from Frank Finney's daughter, Cora, in 1951.

In 1961, Virginia City was designated a National Historic Landmark and, subsequently, placed on the National Register of Historic places in 1976. Following Charles Bovey's death in 1978, Bovey Restoration, Inc. maintained his properties as a tourist site until 1997, when the Bovey-owned historic resources in both Virginia City and Nevada City were conveyed to the Montana Heritage Commission. In 2002, the Finney house was listed individually on the National Register, though partially misattributed as the home built and lived in exclusively by the Finney family from 1864 to 1951. [25]

As has been evidenced by the sequence of husbands, wives, and family members that sold, purchased, built, lived in, moved, rebuilt, modernized, and designated the buildings and their context known as the "Finney House," this resource's cultural expression and historical significance is the result of *collective* social acts over the entire period of Alder Gulch's development. Woven into each of the building's many transformations are narratives to be told of miners, wives and friends who were young, highly mobile, haling from different countries of origin, and different professional backgrounds. They were risk takers, willing to traverse uncharted and remote parts of the country in pursuit of mineral riches often on only the guarantee of rumors of a strike. Hence, buildings and their contexts change as people's ambitions, opportunities, and resources change. The built environment is a mirror of such human interventions, in concert with the natural forces that shape them, and should be interpreted accordingly (fig. 11).

NOTES

[1] There were six mining districts in Alder Gulch: Highland, Pine Grove, Summit, Fairweather, Nevada, and Junction. While Virginia City was the hub of the Gulch, there were other trading centers such as Junction, Adobetown, Nevada City, Central City, Summit, Pine Grove, and Highland. It is estimated that 1500 to 2000 cabins filled the gaps between and on both sides of Alder Gulch that comprised the eight principal mining towns. At the extreme opposite ends of this string of towns, Ruby (to the north) and Union City (to the south) were later be added, forming ten towns in all. Larry Barsness, *Gold Camp: Alder and Virginia City, Montana* (New York: Hastings House, 1962), 7-8, 16-17.

[2] Jan Kolen, Professor of Cultural Heritage at Amsterdam University, points to an international paradigm shift in preservation theory and practice from conservation to transformation. Professor Kolen, in his article "Rejuvenation of the Heritage," discusses how, prior to the last 20-25 years, cultural heritage was seen as "a closed container for history." He notes: "The prevailing view was that the value of an object lay in the significance it had had in the past.... Heritage, it seems is undergoing a process of democratisation, is becoming accessible to an increasingly wider section of society. This is making it suitable material for building networks for cultural and political cooperation, for the building of new, shared identities, and for generating all kinds of public participation. Heritage has moved from being a fairly closed system to an open domain." Jan Kolen, "Rejuvenation of the Heritage," "*SCAPE*, Vol. 2, 2006, 50-53 quoted in the Introduction of *Rooted in Change: Christiana' Reuse as Architectural Heritage*, (Danish Forankring i Forandring), Ann Tietjen, Svava Riesto, Pernille Skov (eds), Aarhus: Architectural Press, 2008.

A "layered contextual approach," as I use the term, is a multidisciplinary approach that gauges the collective forces that contribute to the shaping of a particular built environment. It combines American Studies analysis with a material culture approach. See also, my discussion of "cultural weathering"—the collective layers of human action over time that define the nature of Place. Kingston Wm. Heath, *The Patina of Place* (Knoxville: University of Tennessee Press, 2001). Discussions of the dynamic nature of vernacular resources appear in my first two chapters of *Vernacular Architecture and Regional Design: Cultural Process and Environmental Response* (Oxford: The Architectural Press, 2009).

[3] For more specific data on Montana's political and geographic identity, the following information is included from Burlingame's *Montana Frontier* (as cited in Grace Bates, *Gallatin County: Places & Things Present & Past*, 1994, IX):

> The present area of Gallatin County, east of the Continental Divide (northern plains) was under the control of the Territory of Indiana until 1805 when it became the Territory of Louisiana. By 1812, it was governed as the Territory of Missouri. When Missouri became a state in 1821, the northwest region was designated as "Indian Country." By 1854, Nebraska Territory supervised the northern plains. In 1861, the Dakota Territory included the eastern part of Montana. Idaho Territory was created March 3, 1863 and all of Montana was included. The Territory of Montana was formed, May 26, 1864, and Montana became a state, Nov. 8, 1889.
>
> Note: Western Montana:
> 1843 – Clackamas District of Oregon
> 1845 – District of Vancouver
> 1853 – Washington Terr. – Walla Walla Co.
> 1858 – Spokane County
> 1863 – Idaho Territory

For more information on Governor Sidney Edgerton, see: James L. Thane, *A Governor's Wife on the Mining Frontier* (Salt Lake: University of Utah library, 1976), Barsness, 16-17, and Kingston Wm. Heath, "Striving for Permanence on the Western Frontier: Vernacular Architecture as Cultural Informant in Southwestern Montana," Ph.D. dissertation, Brown University, 1985.

[4] Members of the party of six present at the time of "discovery" were William Fairweather, Tom Cover, Henry Edgar, Barney Hughes, Mike Sweeney and Harry Rodgers. Of these prospecting partners, only Fairweather and Edgar made the initial discovery late in the day of May 26, wash-

ing out $12.30 at Bannack gold prices. Barsness, 3-4.

[5] Among some of the sources, both scholarly and popular, that fix Virginia City and Alder Gulch in the historical awareness and public imagination of its visitors are the following: Nathaniel P. Langford, *Vigilante Days and Ways* (1890), Richard B. Roeder, ed. (Helena: American and World Geographic Publishing, reprint 1996). Michael P. Malone, Richard B. Roeder, William L. Lang, *Montana: A History of Two Centuries* (Seattle: University of Washington Press, 1976/1997). Dick Pace, *Golden Gulch: The Story of Montana's Fabulous Alder Gulch* (Virginia City: Bovey Restorations, 1962). Edwin Ruthven Purple, *Perilous Passage: A Narrative of the Montana Gold Rush, 1862-1863*, Kenneth N. Owens, editor (Helena: Montana Historical Society, 1995). Ken and Ellen Sievert, *Virginia City and Alder Gulch* (Helena: Montana Magazine and American and World Geographic Publishing, 1993). Dorothy M. Johnson, *The Bloody Bozeman: The Perilous Trail to Montana's Gold* (Missoula: Mountain Press Publishing Company, 1983). Marilyn Grant, *A Guide to Historic Virginia City* (Helena: Montana Historical Society, 1998). Vardis Fisher, Opal Laurel Holmes, *Gold Rushes and Mining Camps of the Early American West* (Caldwell: The Caxton Printers, Lt., 1979). Larry Barsness, *Gold Camp: Alder and Virginia City, Montana* (New York: Hastings House, 1962). Barbara Fifer, *Montana Mining Ghost Towns* (Helena: Far Country Press, 2002).

[6] For specific figures for prices on goods sold and purchased in both Bannack and Virginia City, see Kingston Heath, "Striving for Permanence on the Western Frontier: Vernacular Architecture as Cultural Informant in Southwestern Montana," doctoral dissertation, Brown University, 1985. For a detailed discussion of the various stages of camp development see Duane A. Smith, *Rocky Mountain Mining Camps* (Lincoln, NE: University of Nebraska Press, 1967).

[7] Barsness, 16. Others converted log cabins to stores during these early months of the camp, when the commercial district was being defined. Timothy L. Luce's cabin is said to be the first to become a business, the Mechanical Bakery. Other early businesses were built by Frederick Root and Nathaniel J. Davis. Henry Morier is said to have built the first saloon. Dick Pace, *Golden Gulch: The Story of Montana's Fabulous Alder Gulch* (Virginia City: Bovey Restorations, 1962), 18.

[8] A.M. Holter's reminiscences, *Butte Miner*, July 5, 1926. Holter's mill was on Ramshorn Gulch during the winter of 1863-1864. He transported lumber to his yards in Virginia City and Nevada City. According to Judge Henry N. Pace, sluice boxes were built as early as June 1863 on Fairweather bar. The first lumber hauled in from Bannack cost $250 in gold for 1,000 board feet, Pace, 66. As a result, many miners chose to whip saw their own lumber. This, too, was a good business in the early months of the stampede. Two competent sawyers "could whip-saw 100 feet a day at seventy-five cents a foot." Cited in Barsness, 82.

[9] A. M. Hough, "Establishment of Our Mission in Montana. Notes from my Diary." Newspaper clippings in Montana Historical Society Library. Quoted in Barsness, 74-75.

[10] Judge Henry Blake, former Editor of the *Montana Post*, once estimated that $30,000,000 in gold had been taken from the gulch in 1864 alone, and that by 1866 the total was $60,000,000. Henry N. Blake, "Centennial Address on Madison County, delivered July 4, 1876." Contributions to the Historical Society of Montana, Vol. II. Helena, 1896. As Barsness notes, it is not only the richness of the strike that inspires, but the vastness of its gold deposits; "It lay in an almost continuous bed stretching in a sixteen-mile ribbon....Close to a thousand claims were staked along its bottom." 66.

[11] *Pioneer Trails and Trials, Madison County, 1863 – 1920* (Madison County Historical Association, comp., Great Falls, MT: Blue Print and Letter Company, 1976), 324-5. For more on Lawrence Alexander Fenner see his papers at the Montana Historical Society (NUCMC MS 79-374), and reminiscences (MSC 686). Fenner, apparently continuing to develop his mining and real estate interests in Nevada City, died there in 1915.

[12] *Pioneer Trails and Trials*, 324. Following his residence in Nevada City, Fehring and his wife, Mary (Meyer) moved to Adobetown, centrally located a mile west of Nevada City. According to a National Park Service roadside marker, the settlement took its name from the many miners' dwellings constructed of the mud and grass material found naturally along Alder Gulch. In 1864 alone, $350, 000 in gold reportedly was taken from Adobetown, while together with Nevada City some 75-100 placer claims were filed, each employing five to twelve men earning from $5 to $8 dollars daily. At its peak, Adobetown supported a store, a blacksmith shop, two hotels and, in 1873, a school.

[13] April 4, 1877, patent from the U.S. Government for a quarter section land as part of Mineral Entry 285. *Madison County Deed Records Book* [*MCDR*] 30, 399.

[14] *MCDR* 36, Page 9.

[15] *MCDR* 38, Page 479.

[16] *Pioneer Trails and Trials*, 39.

[17] *MCDR* 40, Page 487.

[18] *MCDR* 40, Page 487.

[19] *MCDR* 48, Page 69.

[20] *Pioneer Trails and Trials*, 325.

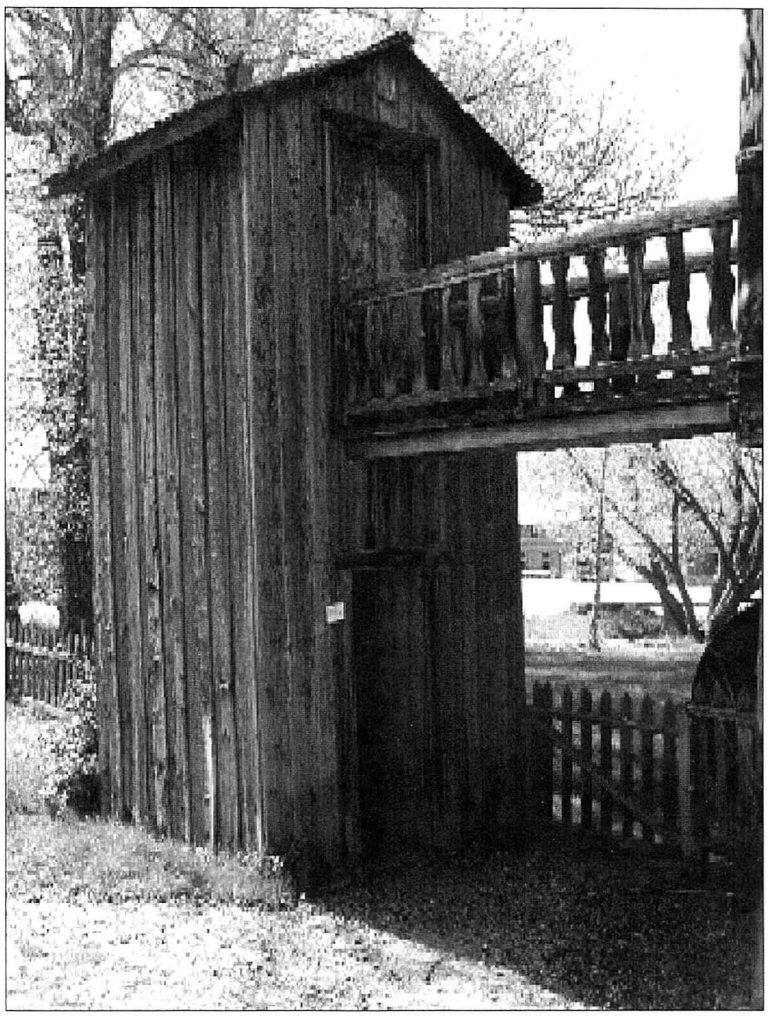
[21] For more on the Conrey Mining Company's involvement along Alder Gulch, with period photographs by mining operator's descendents of the various dredge technology introduced, see: Clark C. Spence, *The Conrey Placer Mining Company* (Helena: Montana Historical Society Press, 1989).

[22] [Madison County] *Deed Book*, 1936: 129/107.

[23] [Madison County] *Deed Book*, 1936 and 1937: 157/299 and 175/300.

[24] Grant, 69.

[25] *MCDR* 200, 112.



Two-story outhouse in Nevada City. Photo by Richard Gibson.

Breaking Ground for Agriculture: Gallatin Valley, MT

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Introduction

Extant historic agricultural buildings in the Gallatin Valley (70 miles east of Butte) reflect patterns of early agricultural settlement seen throughout southwest Montana. There were numerous valleys in the Montana Territory that lay within a couple of days wagon ride of various waxing and waning mining camps, giving them opportunities to thrive as long as their market for goods held.

Early settlement of the Gallatin, however, engendered a community with far greater longevity and more widespread agricultural prosperity then many. This essay traces a chronology of regional ranch and farm buildings, and connects them with an evolving story of agricultural practice, knowledge, and shifting circumstance.

Speculation (1862-1870s)

Within a year following the 1862 gold strike on a tributary of the Jefferson River in Montana Territory, the Virginia City mining community burgeoned, becoming the second territorial capital. A good sixty miles away, scattered settlement was also emerging in the Gallatin Valley. Some of these settlers may have initially been speculators, hoping to make their own gold strike, while others were agrarian, striving to make a living off livestock or farming. Livestock, hay, grain, and foodstuffs were produced in the Gallatin Valley, and freighted to Virginia City to support the booming mining camps. While it lay further from the gold camps than other valleys, it was a vast basin at a lower elevation with a longer growing season, higher annual rainfall, and a well-distributed natural water supply from mountain snow melt.

Some of these early agriculturalists were speculators like the miners they supplied. They were trying to take advantage of a passing opportunity. Savvy stock producers who wanted to settle may have banked on the potential of Northern Pacific's transcontinental railroad, with their land grant of 17 million acres in Montana Territory[1]—awarded in 1864—to eventually provide national markets for goods. In the same year the first federal surveyors of the Montana Territory observed and recorded extremely modest but widespread pockets of settlement from Willow

[1] Malone, et al., *Montana,* p. 173.

Creek at the western extreme of the valley near the three forks of the Missouri River, to the Springhill area, thirty miles to the east.[2]

The western portion of the valley, the Three Forks area, lay within a hard two or three days wagon ride of the gold camps, but it was traversed by the trail from Fort Benton to the north (where mining supplies arrived by steamboat on the Missouri River) and Virginia City. Since regular teamster freight traffic was established on this route, the Three Forks location had reasonable promise for marketing livestock and produce. Although 160 acres later proved to be too small for homestead survival in more arid parts of the region, a small number of individuals and families with the intention of settlement took root in the relatively lush Gallatin Valley.

Early settlers in the eastern reaches of the valley were able to benefit from three things in particular: John Bozeman's westerly trail, which traversed the full length of the valley; the promise of Bozeman's town development (platted in 1864); and the establishment of nearby Fort Ellis in 1867, for a sense of security – although the danger of attack appears to have been largely mythology. The large fort, which housed hundreds of men and horses was a gold mine as a market for local growers and stock producers. Although it lasted only twenty years, those who capitalized on the demands of the military for hay, meat, grain, horses, and other produce gained an early foothold in the industry and were able to expand their holdings rapidly. Opportunities like this gave eastern Gallatin Valley growers a great advantage, if only for a short time. Agricultural settlement evolved at the outset to profit from the mining boom, but thrived to outlive it due largely to the promise of railroad development, a western faith in progress, and readiness to seize passing opportunities.

The speculative building forms of the earliest rural settlements were small in scale, built with few hands, and with tools that could be easily carried on a long overland journey or made by a local blacksmith. Log construction was the norm, as the materials were plentiful and close at hand, especially in the eastern part of the valley. Research in the Gallatin Valley reinforces Jordan's finding that the single crib log structure with entry at the gable end, which he defines as the *Anglo-Western cabin* was prevalent.[3]

The first log structures on a land claim were very small and often quickly built. Settlers who had traveled with an overland wagon train from Saint Louis, for example, might arrive in the Gallatin Valley late in the summer, having little time to find viable land, and build shelter for themselves for a long winter.[4] A typical family might build a single room log house and corral for a few head of stock in their first season, and the following season build an outhouse and a single crib log building for one or two animals – perhaps a work horse and a cow – and a small amount of feed storage. The floor of the valley was largely void of trees, but the mountain foothills that surrounded it provided a plentiful supply of tall, straight evergreens. The forested hillsides were considered a commons, and early surveyors' maps delineate many trails leading up into the hills where people dragged their logs

[2] General Land Office, *Homestead Patent Records.* Department of the Interior, Bureau of Land Management archives, Billings, Montana, 1864.

[3] Terry G. Jordan, Jon Kilpinen, and Charles Gritzner, *The Mountain West: Interpreting the Folk Landscape.* Baltimore: Johns Hopkins, 1997, p. 13.

[4] Ken Karsmizki and Joan Brownell, *Gallatin Valley Homestead Survey.* Volumes 1-6. Bozeman, MT: Museum of the Rockies, 1983.

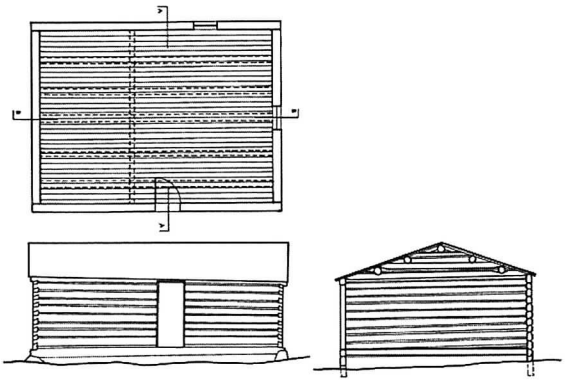


Figure 1: Single crib log dwelling with all the hallmarks of an early settlement type: Ridgepole and purlin roof, hand-hewn logs, and eave entry. Still in use as a family dwelling, although there have been additions to it. (Amos Williams' 1883 Homestead, Bozeman Creek). All drawings in this essay are by permission of the author, Maire O'Neill.

into the valley.[5] While the dimensions of crib structures were generally limited by the length of logs, Vlach points out that cribs tended to be longer in the West than in the upland South, because taller trees were available. [6]

Roofs of most of these buildings were a gable type, with a central ridge and simple gable ends. However, the earliest log structures – a few of these still in evidence – used a roof with a very low pitch, formed by the placement of the ridge pole directly on the end wall logs, with no gable – the ridgepole-and-purlin roof (see figure 1). It was expedient, as it required no gable end construction, it could be roofed with a variety of materials, including insulating sod, and kept the warmth of the space low down within the occupied volume. A crudely built log shelter suggests an early structure that may have been built in a hurry by someone applying minimal notching skills (see figure 2). Many such buildings probably have not survived to the present day – a result of their crude construction or the lack of value placed upon them. The steeper 12/12 pitch gable (also known a "half pitch") was widely used, as it proved to shed moisture and melting snow well. The craftsmanship and character of log notching was as variable as the people who built them. Construction which used the full diameter of the peeled log was very common, and saved construction time compared to the hand hewn log, but it required more chinking which demanded constant maintenance.

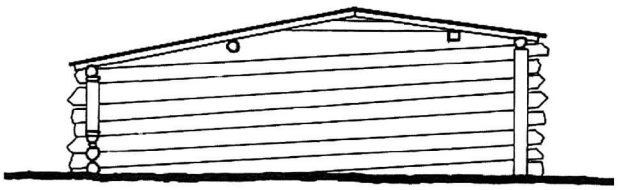


Figure 2: Section through a roughly-built low profile cattle shed with purlin roof (no ridgepole). The low-sloping form suggests it may have originally been sod. The construction is with peeled, un-hewn logs, and V notching – by far the most common notching type still evident in the Gallatin Valley. Rough and inconsistent construction indicates this shed may have been built in a hurry by someone with limited experience. It was built on wet low ground, and is subsiding. (Rugheimer Farm, East Gallatin).

It is clear from the 1864 surveyors' notes that the earliest settlers chose prime lowland, where they had year-round running water, fertile grazing land, easy access to the main thoroughfare, and often a shallow hillside or a stand of trees to shelter their buildings from winter winds.[7] They focused their energy on securing good crops, expanding their livestock herds, and making only the building improve-

[5] General Land Office, *1864 Montana Territory Surveyor's Records.* Department of the Interior, Bureau of Land Management archives, Billings, Montana.

[6] John Michael Vlach, *Barns.* New York: W. W. Norton & Company, 2003, p. 305.

[7] General Land Office, *1864 Montana Territory Surveyor's Records.*

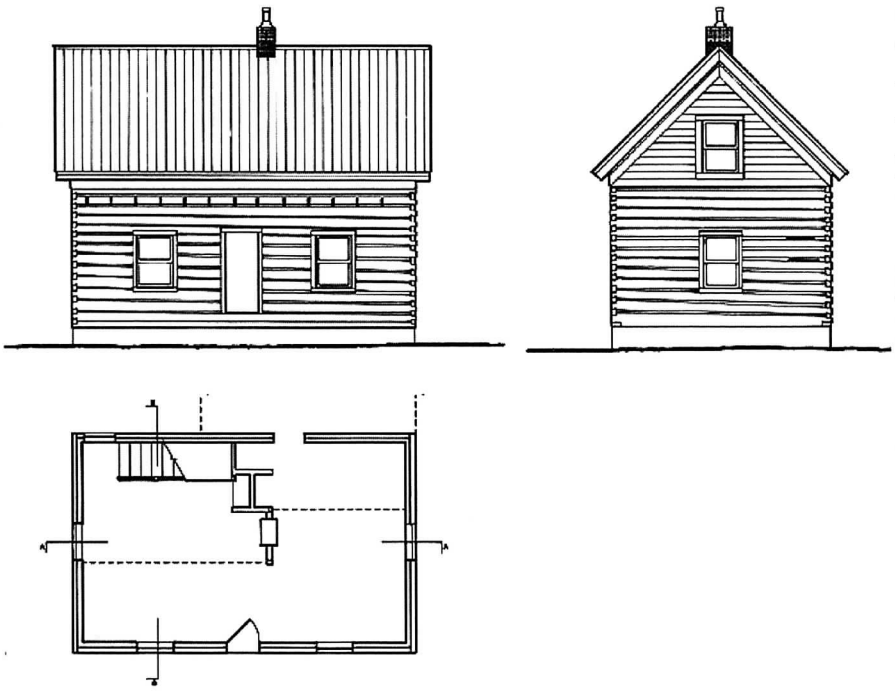


Figure 3: A typical four-room two-story log dwelling with eave entry and central fireplace. Roof pitch is 12/12 to shed snow effectively. Logs are finely hewn and half dovetail notched by a very skilled builder. Not typical in size or quality for the first years on a homestead. (Rugheimer Farm).

ments necessary to prove-up on their claim, long before they invested time and resources in the construction of a larger or more substantial dwelling.

As they became more established, a family might enlarge their log house by adding a second crib, excavating a root cellar, and building a small chicken house. Exquisitely hand hewn and scribed log dwelling structures, with tight, precise notching were quite widespread, but they were generally larger 1½- or two-story structures, and were probably the dwellings of families who had already proved up on their homestead claim and banked some financial resources (see figure 3).

Instances of light wood frame construction in the valley occurred as early as 1869, but standardized milled lumber was not widely available until many years later, due to the difficulty and expense of transporting milling equipment overland from the steamboat terminus at Fort Benton. When Nelson Story, the infamous cattleman, built his 1869 house on Bozeman's Main Street it may have been the first light wood frame dwelling, built when both the milling and the carpentry skills required for framing were still rare in the region.[8] The square cut nails used in its construction attest to the difficulty and expense of transporting modern manufactured goods, even though round wire nails were readily available by this time in the east. In the 1870s settlers like John Leverich constructed primitive lumber mills near the mouths of the many small canyons opening into the valley. Leverich's homestead still houses an unusually early light wood frame granary from the 1870s. Its construction date is implicit from records of the number of bushels in annual grain harvests which are penciled on its smooth, dry interior (see figure 4). Several characteristics of this early granary suggest a large, successful grain operation. It is no coincidence that this early farm also straddled a year-round spring creek.

The challenges of transporting farming machinery by riverboat to Fort Benton in the

[8] Shamblin, Michael, Eli Oldham, and Boone Nolte, 1869 Nelson Story House: Research on its Origin. Bozeman: Montana State University, School of Architecture, undergraduate research, 2002.

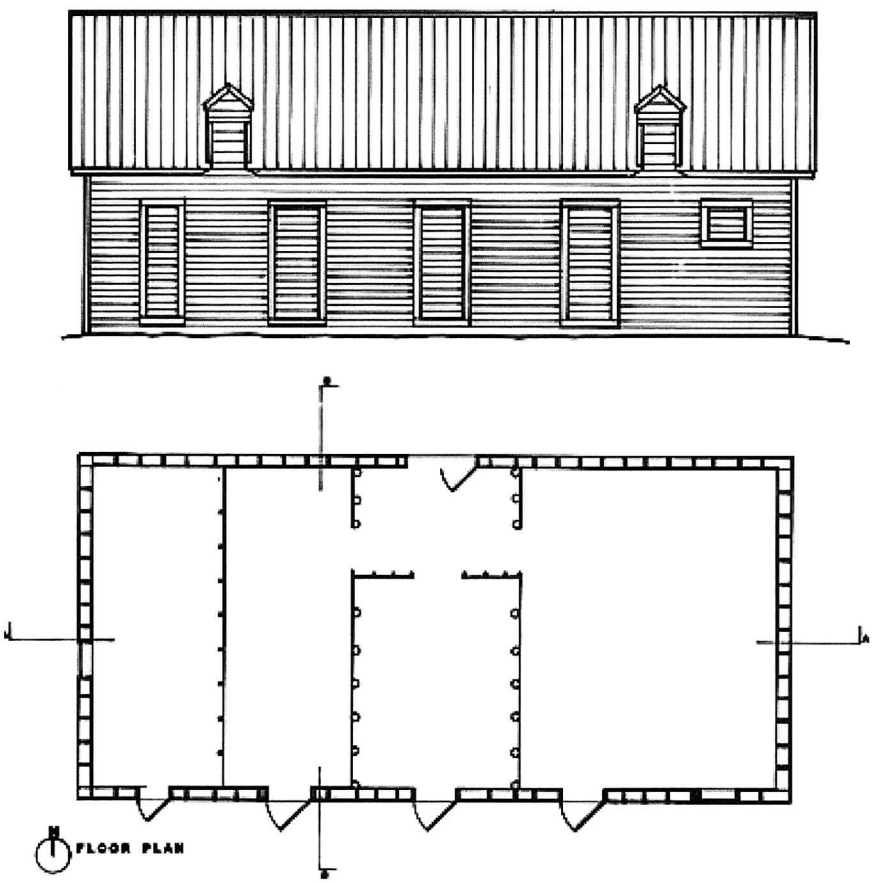


Figure 4: Plan and elevation of 1870s light wood frame granary of John Leverich, near Leverich Canyon, Bozeman, with dormer loading hatches. The framing is irregular due to lack of standardized milling equipment, and was very rare in the valley until the transcontinental railroad was opened. (Hubka Farm, Leverich Canyon).

north, and then overland hundreds of miles by freight wagon to the Gallatin Valley, meant that relatively few of the early farmers would have produced large quantities of grain. The hay that was produced was sold to livery stables, but at that time it was not generally used to feed winter livestock herds. Range cattle and horses were expected to paw through the snow to graze on dry grasses.

The early construction in the valley was of a highly speculative nature. Settlers were generally unfamiliar with the climate, weather patterns, and soils, and did not have a clear sense of their potential for success with various forms of agricultural production. Their buildings were simple, small, and often hurriedly built. As they became established they developed experience about the types of crops and livestock that could thrive in the new conditions, and the building types most suitable to house them. These agriculturalists invested in slightly larger structures and expanded operations, especially as the community around them showed promising signs of growth, allowing them to market more produce.

Settlement & Aspiration for Permanence (1880s)

As the city of Bozeman developed, aided by the presence of the nearby military fort and the promise of the railroad, settlement in the surrounding valley was spurred by the push toward statehood, made official in 1889. Out of self-interest, the railroad played a well-known role in promotion of the region for settlement, and enabled a rapid population influx.[9]

Settlers generally brought their farming and stock raising experience from geographic re-

[9] Malone, et al., *Montana*, p. 198; Merrill G. Burlingame, *The Montana Frontier*. Helena, MT: State Publishing Company, 1942.

gions quite different from the Rocky Mountain west, and became acquainted only gradually with the vicissitudes of the climate at higher elevation. In the winter the grazing herds were generally left to fend for themselves, without the benefit of hay. This worked well for stock raisers until the devastating winters of 1886 and 1887, and again in the 1890s, when mid-winter thaws melted the snow pack just enough to accumulate several inches of water on the frozen ground surface, re-freezing for the remaining bitterly cold months of the winter. Livestock could only paw down to the solid ice, no longer able to access the grasses. Having no forage to fall back upon, many stock raisers watched helplessly as they lost large herds of cattle, horses, and sheep to starvation.

Following these experiences, hay production became widely recognized in the Rockies as a necessity for wintering herds, and the well-watered Gallatin Valley was well positioned to produce it. With this demand came a new necessity for draft horse teams, mules, and farm machinery, and the buildings these assets required. Many of these early mid-sized buildings (often two stories in height) employed log construction, as it was still the most readily available material, and it was durable for livestock use. Since the scale of such buildings was limited by the length of logs, both the double crib and the transverse crib were common ways of increasing the footprint of the building.

The Northern Pacific Railroad had reached the valley in 1883, significantly opening up huge, profitable markets for agriculture. Livestock and grain became profitable business. Those who had the resources expanded their land holdings, enlarged their herds, constructed more buildings, and expanded grain production. Private, cooperative, and corporate investment in the grain industry led to the construction of wooden grain cribs, where grain could be stockpiled until national prices were advantageous. The earliest granaries were generally single cells of log construction, some of them substantial in size (see figure 5). As milled lumber became more widely available due to the availability of milling equipment by rail, small and medium sized granaries on individual farmsteads used "inside out" construction, with horizontal plank siding on the interior of the 2x4 stud framing, providing a smooth, clean surface on the inside of the bin, while the pressure of the grain held the

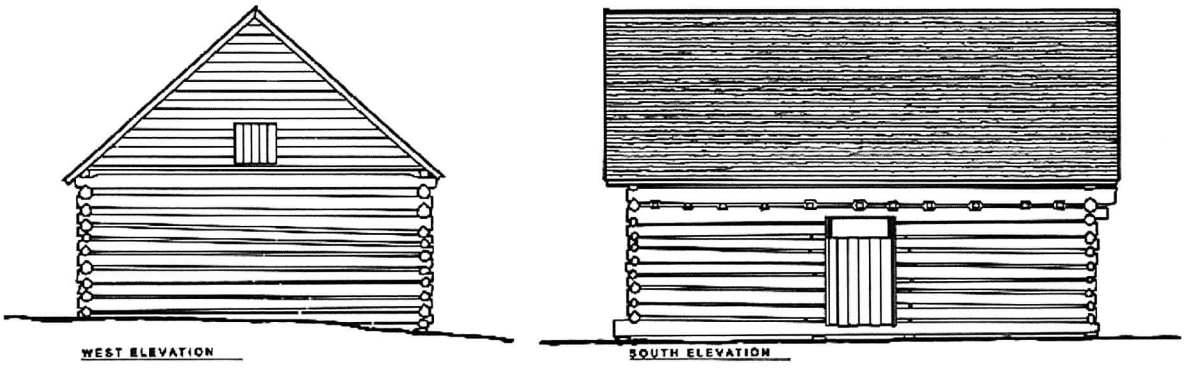


Figure 5: Elevations of log granary – a single crib structure 25 feet long. The longitudinal logs are pegged to each other at the unloading door to help resist the outward pressure of the loose grain. The quality and maintenance of the chinking, some of which is still in evidence, would have been critical to its effectiveness in securing the grain. (Gowin Place, Springhill area).

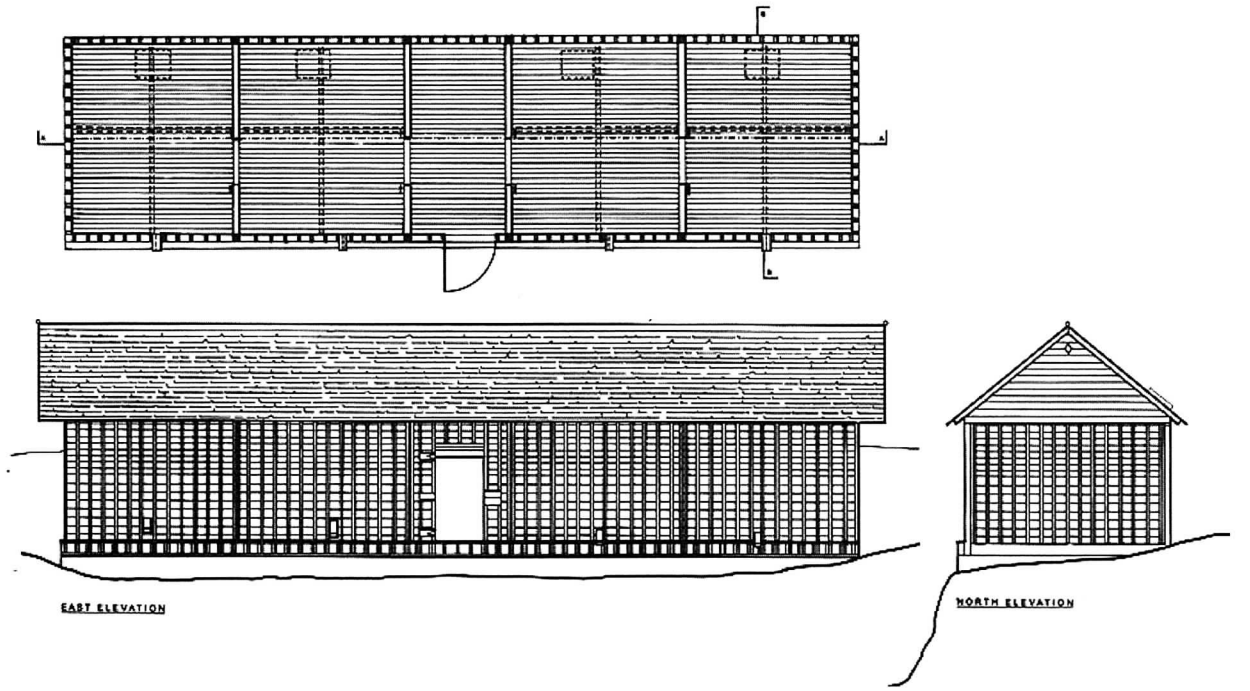


Figure 6: Plan and elevation of a large granary with 2x6 "inside-out" stud framing and tongue-in-groove interior. Long-lived in spite of its exposed structure. (Butterfield granary, Cottonwood Creek).

planks against the framing (see figure 6). Exterior siding was not considered necessary, due to the dry air, which gave these structures the distinguishing character of exposed stud framing.

Diversification (1890s, 1900s)

As settling families became more experienced in their new environment they shifted their production. They were influenced by a growing familiarity with cycles of flooding river bottoms, periods of drought, bitter winters, occasional July snowstorms, the viability of various livestock and produce, and changing market demands and opportunities. It was the opening of Northern Pacific's transcontinental railroad, however, that precipitated profound changes in agricultural production and triggered a flood of new settlement throughout the region. Expansion of the lumber milling industry was facilitated with the latest equipment shipped by rail.[10] Access to national markets caused dramatic shifts in the scale, density, and appearance of farm buildings.

Producers now had rural mail delivery, giving them access to new agricultural literature. As stock growers and farmers experimented with their produce, their diversification served as a survival strategy to accommodate market fluctuations, climatic variation, and other influences out of their control. The diversity of livestock and produce required a variety of new building types, such as hog sheds, lambing sheds, stall barns and stout corrals for stallions or breeding bulls, and multiple wood granaries to store varieties of grain for a bur-

[10] Mills, G.E., *Buying Wood and Building Farms: Marketing Lumber and Farm Building Designs on the Canadian Prairies, 1880-1920.* Ottawa: Minister of the Environment, 1991.

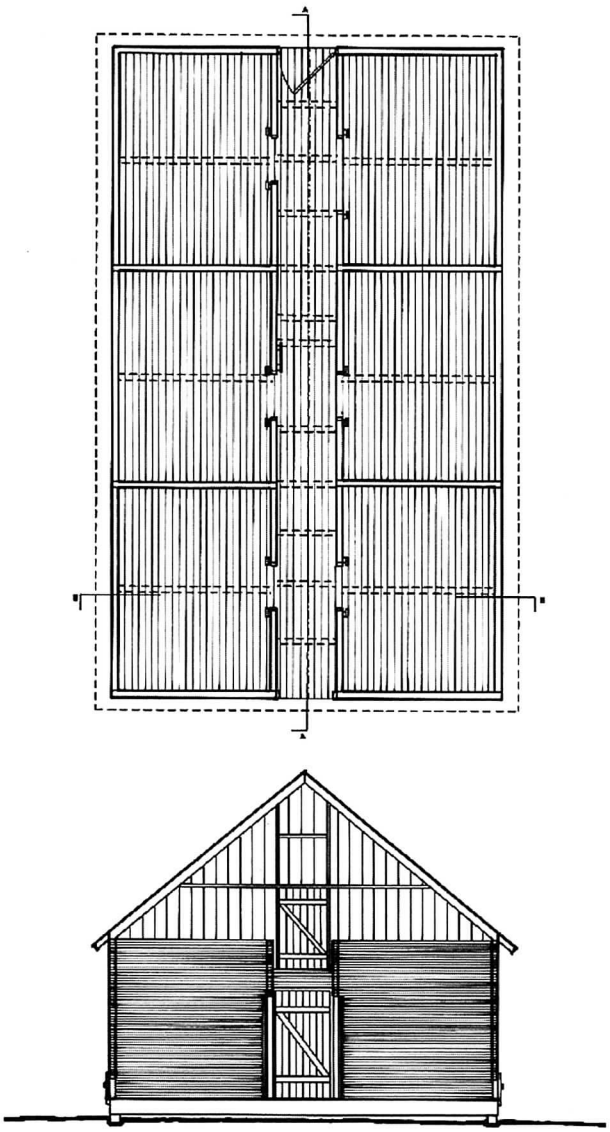


Figure 7: Plan and section of a six-celled granary with cribbed construction. Its size (over 40 feet in length) suggests a very successful operation or a farmers cooperative. Generally the larger granaries, like this one, were located in close proximity to a railroad siding for shipping. (Ward Ranch, Gallatin Gateway).

geoning market for flour. Most of these structures were symmetrical gable forms, with a 12/12 pitched roof.

Cribbed construction — 2x4s or 2x6s stacked flat on top of one another and nailed — was used for medium sized granaries and extremely large multiple bin granaries that were cooperatively owned or sponsored by corporate investment (see figure 7). Some of these granaries had dormers above the bins, providing an opening for top loading with an elevator when the technology was available.

The Montana Agricultural Experiment Station in Bozeman, established in 1893, began publishing bulletins offering recommendations based on scientific research of livestock and range management and crop production. Occasionally they featured illustrations of model buildings, (including small-scale plans and elevations) for specific sheltering or storage purposes.[11] Sometimes these building types were presented to better accommodate certain stock or grains, especially if the station was promoting the introduction of new breeds or varieties. In other instances they illustrated and promoted affordable construction techniques using inexpensive resources available in the region. It is unclear how much influence these publications had on what producers built, but the publications were widely circulated by mail, and were readily available.

By 1903 the Experiment Station was promoting diversification of production based on sta-

[11] Linfield, F.B., "Poultry Management," *Montana Agricultural College Experiment Station, Bulletin No. 50*, (Oct. 1903): p. 180-190. Elliott, W.J., Creameries and Cheese Factories: Organization, Building, and Equipment," *Montana Agricultural College Experiment Station, Bulletin No. 53,* (Aug. 1904): p. 59-68. Clark, R.W., and H.P. Griffin, "Hog Management in Montana," *Montana Agricultural College Experiment Station, Circular No. 13* (Dec. 1911): p. 47-67. Schoppe, Wm.F., "Poultry Houses," *Montana Agricultural College Experiment Station, Circular No.9* (Jul. 1911): p. 1-13. Murdock, H.E., R.M. Merrill, & J.O. Tretsven, "Dairy Barns for Montana Farms," University of *Montana Agricultural Experiment Station, Circular No. 130, (Jun. 1925):* p. 1-22. Murdock, H.E., *"Farm Buildings,"* University of *Montana Agricultural Experiment Station, Circular No. 131 (Jan 1926):* p. 1-32.

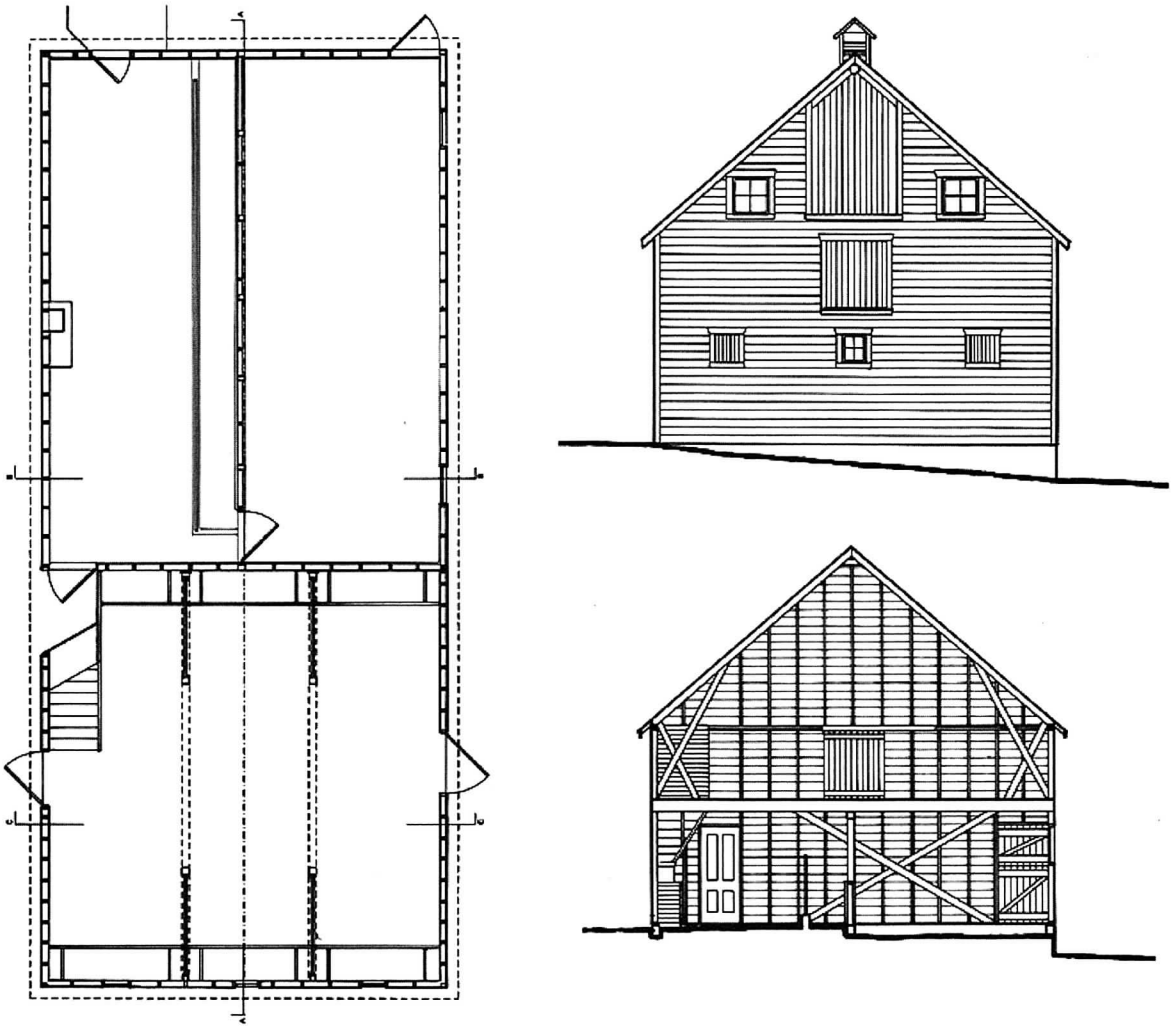


Figure 8: Plan, elevation, and section of a large gable barn with braced rafter construction. Realizing the need for this type of bracing in a large roof may be a precursor to acceptance of the Midwestern gambrel truss forms. (Ward Ranch, Gallatin Gateway).

tistics which showed that the state was importing (and consuming) millions of dollars worth of meats, poultry, dairy products, vegetables, and grain annually.[12] The development of these new industries, of course, involved the construction of new varieties of farm buildings, and many large structures for beef and dairy operations sprang up all over the valley. The earlier of these structures used a steep gable roof form, with 2x braced rafters and collar ties (see figure 8).

Consumer Culture (1910-1930s)

Gallatin Valley agriculture boomed after 1910, and farms grew in size. Increasingly larger buildings were constructed, influenced by growing mechanization and greater volume of production. There were a variety of influences on the form and construction of these buildings. Agricultural builders began to enter

[12] Linfield, F.B., "Report of the Director: The Diversified Farm," *Montana Agricultural College Experiment Station Ninth Annual Report*, (1903): p. 9-10.

a national consumer market for buildings, due to the availability of building patterns and plan services advertised and promoted in journals like the *Breeder's Gazette*. Free barn plan services were provided by lumber suppliers and dairy equipment manufacturers in an attempt to promote sales. Many of these services were based in the Midwest, and as a result there was a strong Midwestern influence on building forms.

Mail-order companies began to recognize the potential market for mail-order agricultural buildings in 1910. There was an evolving series of marketing approaches. First, one could order plans, instructions, and a bill of materials. A natural successor to this offering was by lumber companies, who delivered plans, instructions, a bill of hardware and materials, and all the required lumber as a more complete package. Next, several mail-order companies contracted with massive lumber operations in the Midwest and west coast, and delivered complete kit buildings (large barns and a variety of outbuildings) which were comprised of plans, instructions, and all lumber, doors, windows, roofing, nails, building materials and hardware. By 1914 at least eight such companies were operating on a national scale. Finally entirely pre-cut kit buildings were the ultimate mail-order, by delivering not only all the hardware, materials, and parts, but every stick of lumber cut to its precise finished dimensions and numbered.

The gambrel (or curb) roof is the primary aspect of Midwestern barn design that was widely adopted in the Gallatin Valley after 1910. A variety of braced rafter and truss forms that were developed in the Midwest made this roof type strong and yet inexpensive to build.[13] The advantages of this form were that a wide roof span could be built with short members of one or two inch thick lumber, it provided a greater volume in the hay loft than the gable roof, and it provided a clear open space below for the operation of a hay carrier mechanism to stack loose hay. Builders in the Gallatin Valley developed many variants of the braced rafter and wing joist, the Shawver truss, the Iowa truss, and scissor truss. The wide variation in framing technique suggests that Montana builders were influenced from many sources, and perhaps they also improvised (see figure 9).

One large building form that is almost certainly influenced by out-of-state plan services and mail order is the gothic type. It is built from such an unlikely minimum of lumber that it is probable that the first of these in the valley was built from a set of previously tested and engineered plans. However, the technical details of these structures also vary considerably throughout the valley, again reflecting local adaptation (see figure 10). These large buildings were used for dairy cows or prized breeding stock. Many of them are fitted with prefabricated equipment such as stanchions, feed carriers, and manure carriers that were manufactured in the Midwest.

In 1926, in response to an influx of new settlement in the region, the Experiment Station was promoting the construction of the most temporary, inexpensive building types possible for new homesteaders. They recommended the construction of durable buildings only after the farmstead was established, title to the land secured, and after the acquisition of larger herds. One of these building types was the "straw barn" for sheltering livestock.[14] It was built of two tall parallel fences of hog wire, three or four feet apart, and the space between them filled with loose straw. Horizontal poles

[13] Noble, Allen G., and Hubert Wilhelm, eds., *Barns of the Midwest.* Athens, OH: Ohio Univ. Press, 1995, p. 149.

[14] Murdock, "Farm Buildings," p. 22-24.

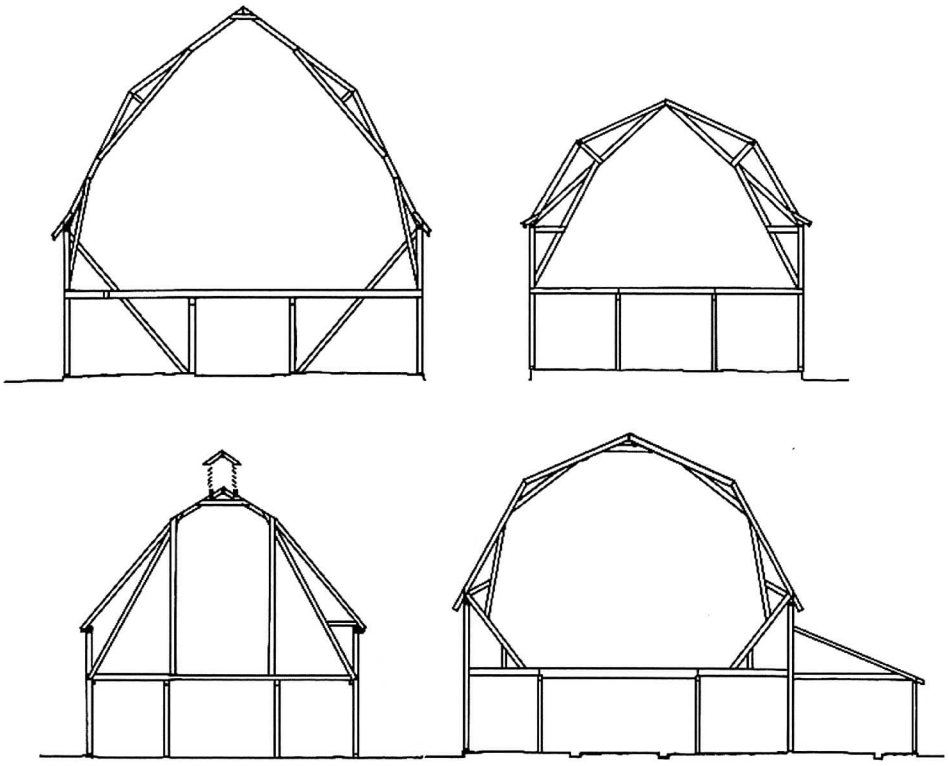


Figure 9: A wide variety of gambrel roof framing variants are found in the Gallatin Valley, some of these suggest western improvisation or adaptation of Midwestern framing ideas. All of the above are suitable for operation of the hay carrier, which ran along a central rail at the collar ties. (Walton dairy barn, Rugheimer horse barn, Fowler Place barn, and Boylan dairy barn).

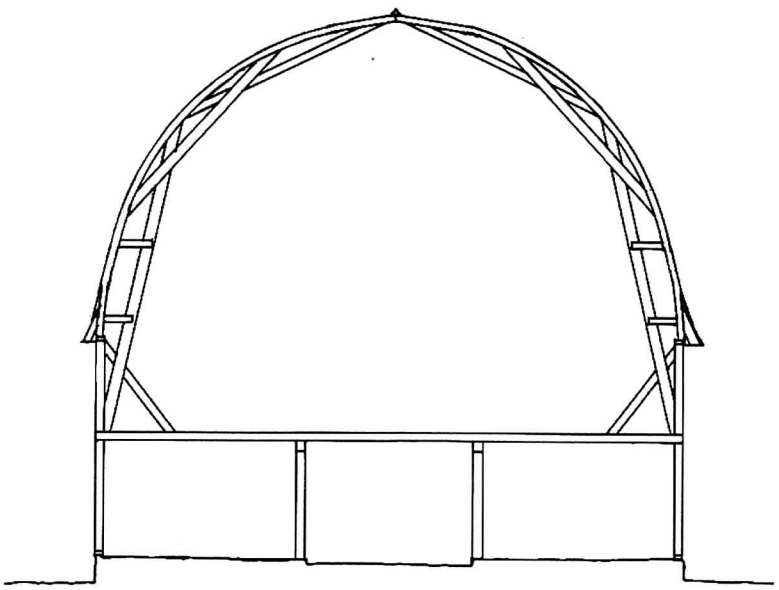


Figure 10: Each rib of this gothic roof (or rainbow roof) is comprised of four or five 1x6s nailed together to form an arc. The additional bracing mimics the braced rafter concept, and occurs on every fourth rib. (Gowin barn, Springhill area).



Figure 11: Straw shed on Rex Inman farm near Estherville, Iowa, built because of inadequate size of barn. Russell Lee, photographer, 1936. Library of Congress Prints.

and hog wire supported a thick mound of straw as a roof. This structure was identically described in the recollections of a stock raiser on his family farm on the East Gallatin.[15] They were also used in other regions of the country (see figure 11).

The story of building for agriculture in the Gallatin Valley is a providential one. Although the valley was remote, early settlers had the advantages of rich soils, a year-round water supply, a supply of good lumber in the surrounding foothills, a major immigrant route, and a freight route to mining camps. In spite of occasionally devastating weather conditions, the bust of the nearby mining settlements, and the challenges of becoming acquainted with crop raising at high elevation, agricultural settlement not only survived but continued building. No small measure of its success was due to the promise and later the reality of the Northern Pacific Railroad's transcontinental line. Agricultural builders applied business savvy during speculative times, made excellent use of available natural resources, and adapted extremely efficient construction methods to suit their needs. The transitory nature of their light construction, achieved with modest means, is a characteristic that is widespread throughout the agricultural valleys of the Northern Rockies. Paradoxically, it is their light construction that makes them significant in telling a story of western architectural development.

[15] O'Neill, *Learning Rural*. Interviews with ranching families, case study #1.

THE RANCHING STORY

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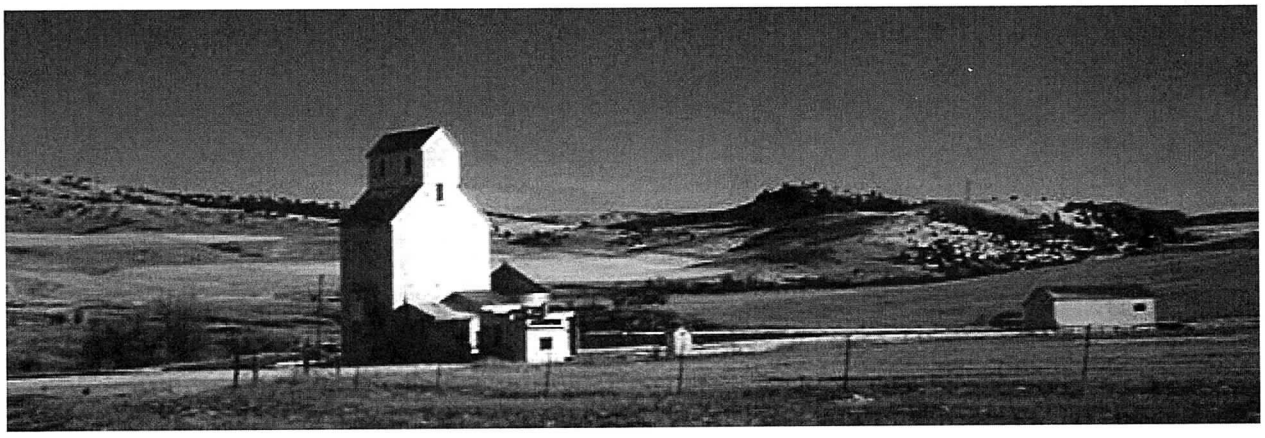
Cowboys and cattle don't really seem like they have much connection to miners, labor unions, and ethnic enclaves, but actually, Montana's ranching origins are very much and logically connected to its mining history. As soon as the California gold rush began to wane in the late 1850s, the thousands of miners who had made their way to the Sierras fanned out into the Rockies in search of another rich strike. It was just a matter of time before they made their way to the mountains of western Montana, and that they did in the summer of 1862 when John White set off the first major placer rush in the Grasshopper valley in the southwestern corner of the state. Montana's first major gold rush boom town sprang up on Grasshopper Creek, and the miners dubbed it Bannack City, a misspelling of the Bannock Indian tribe that called the region home. Bannack soon had a few thousand people but, as in most mining camps, striking it rich proved to be the exception, not the rule, for most of the residents. The miners wandered the area around the diggings hoping to come across another rich strike, and eventually a few of them struck a claim in a valley fifteen miles west of Bannack in a narrow gully dubbed Jeff Davis Gulch. Some of them certainly noticed that the Horse Prairie valley that they had stumbled upon, with its broad meadows and good grass, would make decent ranching country. The more enterprising of them concluded that their chances of getting rich in Montana would come not in staking a claim, but in supplying the miners with the essentials that were so dear in such an isolated environment. Thus were some of the first sustained ranches in Montana born. Men who had journeyed to Montana to strike it rich transformed into some of the territories' first and most prominent ranchers. Martin Barrett was one of them, an immigrant from Ireland, who had come to Bannack to strike gold, but after his foray into Horse Prairie decided instead to begin one of the first ranches in the territory in the valley adjacent to Bannack. Barrett's Cross Ranch in Horse Prairie would ultimately comprise 4,500 acres on which the Irishman produced 500 tons of wild hay from those broad meadows, and on which he ran 2,000 Shorthorn cattle.

Other ranches soon followed Barrett's until Horse Prairie was largely settled and ranches sprang up around the rest of the Beaverhead Valley. By the time Butte became a thriving silver mining town in the 1870s, the Beaverhead had already had almost a decade of Euro-

pean settlement. The largest and most impressive of the Beaverhead ranches was the famed Poindexter and Orr ranch located on Blacktail Creek, nine miles south of Dillon. William Orr and his partner Philip Poindexter had already discovered in California that supplying beef to the miners secured an income that prospecting for gold could not. The partners decided to bring that business plan to Montana and its newly discovered gold fields, but when William Orr arrived in Bannack in 1864, he realized the small gulch on the Grasshopper wasn't suited for watering the herd. He took his cattle over the hill into the Beaverhead valley where he found plentiful food and water and the cattle gradually drifted up Blacktail creek. Orr was caught with his herd in the brutal winter of 1864, but that spring he was amazed and pleasantly surprised to find that his cattle had flourished on the native grasses. The partners brought more cattle to Montana until the Poindexter and Orr ranch in its heyday was one of the largest sheep and cattle ranches in the territory, and they also ran thousands of head of horses for which they became somewhat famous. The P and O brand, the square and compass, became one of the most recognized in the state, and the first recorded cattle brand in Montana territory. The imposing Orr mansion, built by William in 1885, sits on Orr Avenue in Dillon, a testament to the valley's ranching heritage, one that mining made possible.

In the years after, when Butte became Montana's most important and flamboyant symbol of the influence of mining, the Beaverhead Valley, with its ranches, wide open spaces, and western ethos, seemed a different world compared to the cosmopolitan, ethnic, working class enclave of Butte. But despite these later cultural differences, both places are products of a shared history, both dependent on the other, in many ways, for their importance to and presence in the narrative of southwestern Montana.

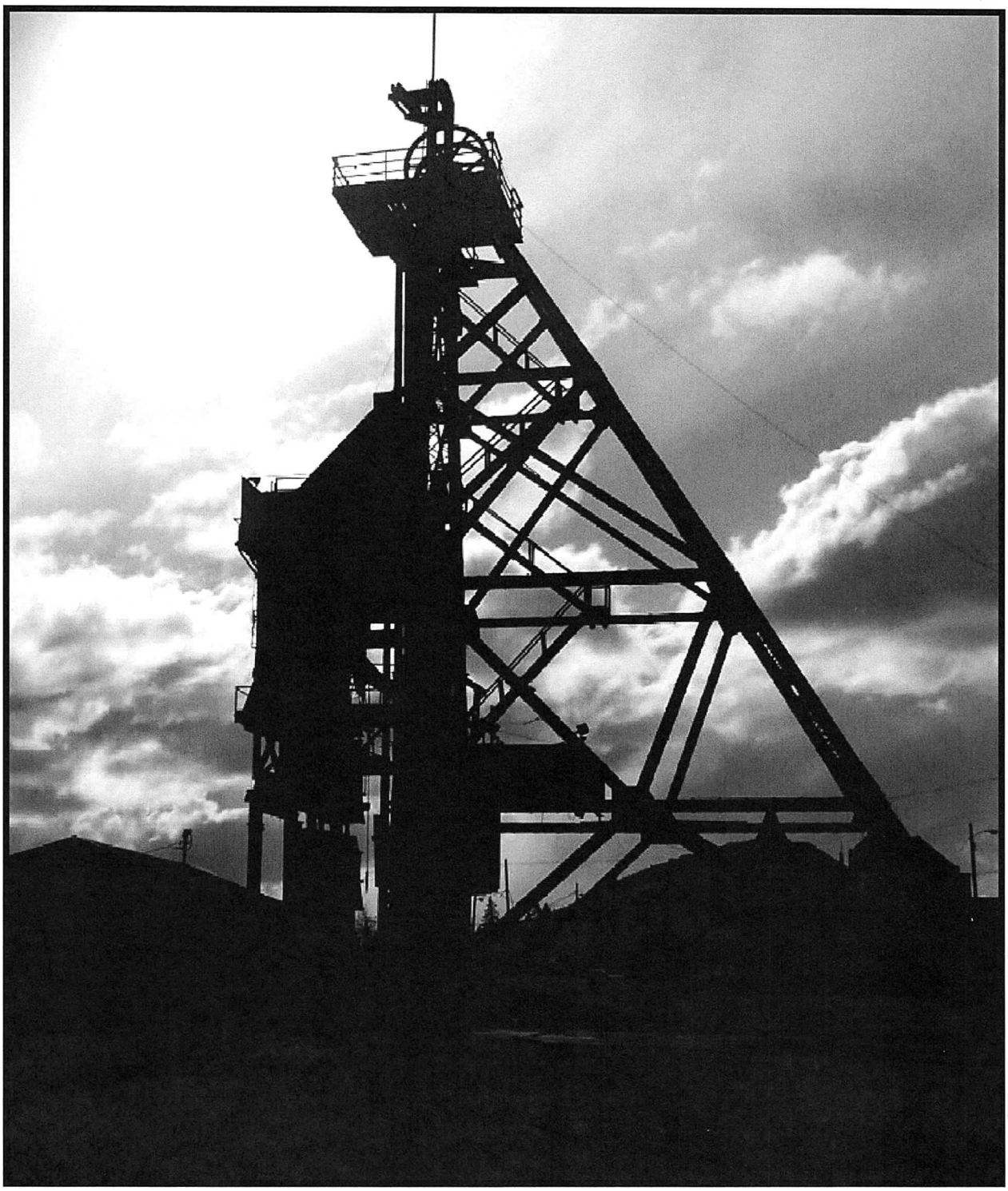
Near Anceny, Montana, approximately 20 miles west of Bozeman. Photo by Richard Gibson.



Butte Day



A typical bay-fronted flat in Butte. Drawing by Mark Reavis.



Steward Mine headframe, Butte. Photo by Richard Gibson.

BUTTE

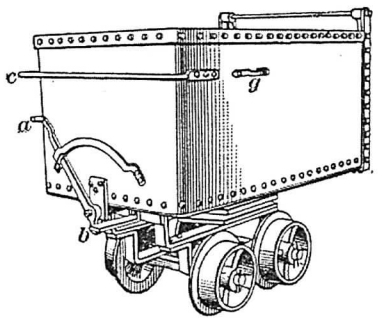
"The richest hill on earth" … "the Gibraltar of unionism" … "A mile high and a mile deep" … "Wide open town"[1] … "just five miles from Montana" … "certainly the ugliest town in the world"[2] … "the most pictorial place in America"[3] … "a very bully of a city, stridently male, blusteringly profane, boisterous and boastful"[4] … "an island of easy money, entirely surrounded by whiskey"[5] … "This Butte is capriciously decorated with sweet brilliant metallic orgies of color at any time, all times, as if by whims of pagan gods lightly drunk and lightly mad"[6] … "the nation's largest Superfund site" … "the perch of the devil"[7] … "For mixture, for miscellany—variedness, Bohemianism—where is Butte's rival?"[8] … "Poisonville"[9] … "the prettiest women of any red-light district in the West"[10] … "Crazed by Avarice, Lust and Rum, Butte, thy name is Delirium"[11]

Butte has two primary sections: Uptown Butte, the old central business district and adjacent neighborhoods, usually defined as the area north of Front Street, and the Flats, everything to the south. Uptown Butte developed adjacent to the mines, whose headframes are still closely juxtaposed with residences and business blocks. Until about 1910 most of Butte's population was concentrated in the Uptown area. As the trolley system expanded and automobiles became common, suburban areas grew on the valley floor south of the Butte Hill. Several large public schools were built there in 1915-1917, reflecting the expanding population. The Uptown district today is often referred to as "The Hill," but strictly speaking the Butte Hill was mostly the area of active mines, just east of the business district—and now almost entirely removed by the Berkeley Pit.

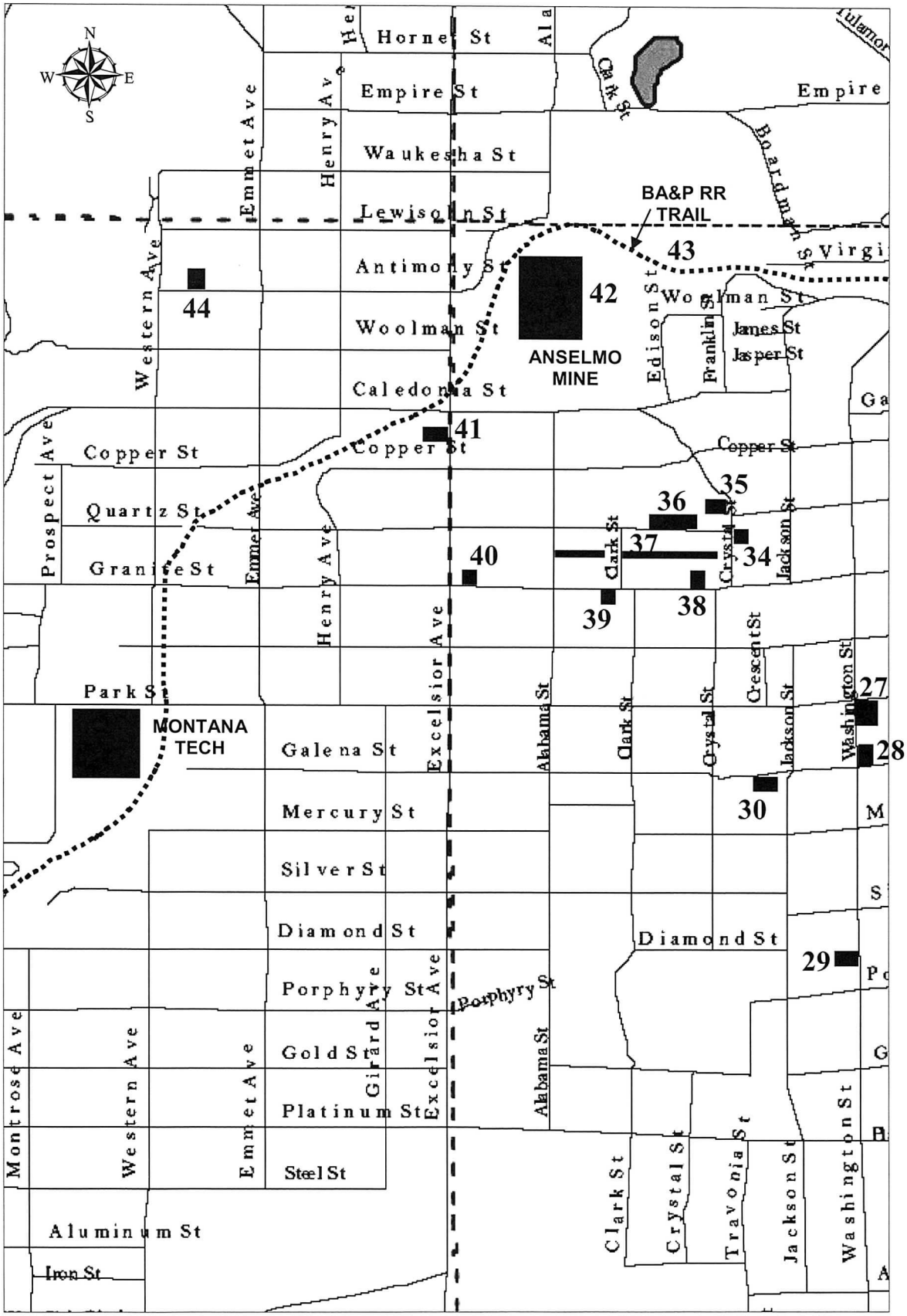
With more than 6,000 contributing properties in the Butte-Anaconda National Historic Landmark District, it has proved challenging for us to select a few representative locations for the VAF Conference. In addition to the Uptown Butte sites described on the following pages, dozens of buildings in Butte have historical plaques with salient information to give visitors an outline of specific history. The introductory essays in this book are intended to give you the broader context of Butte's built environment.

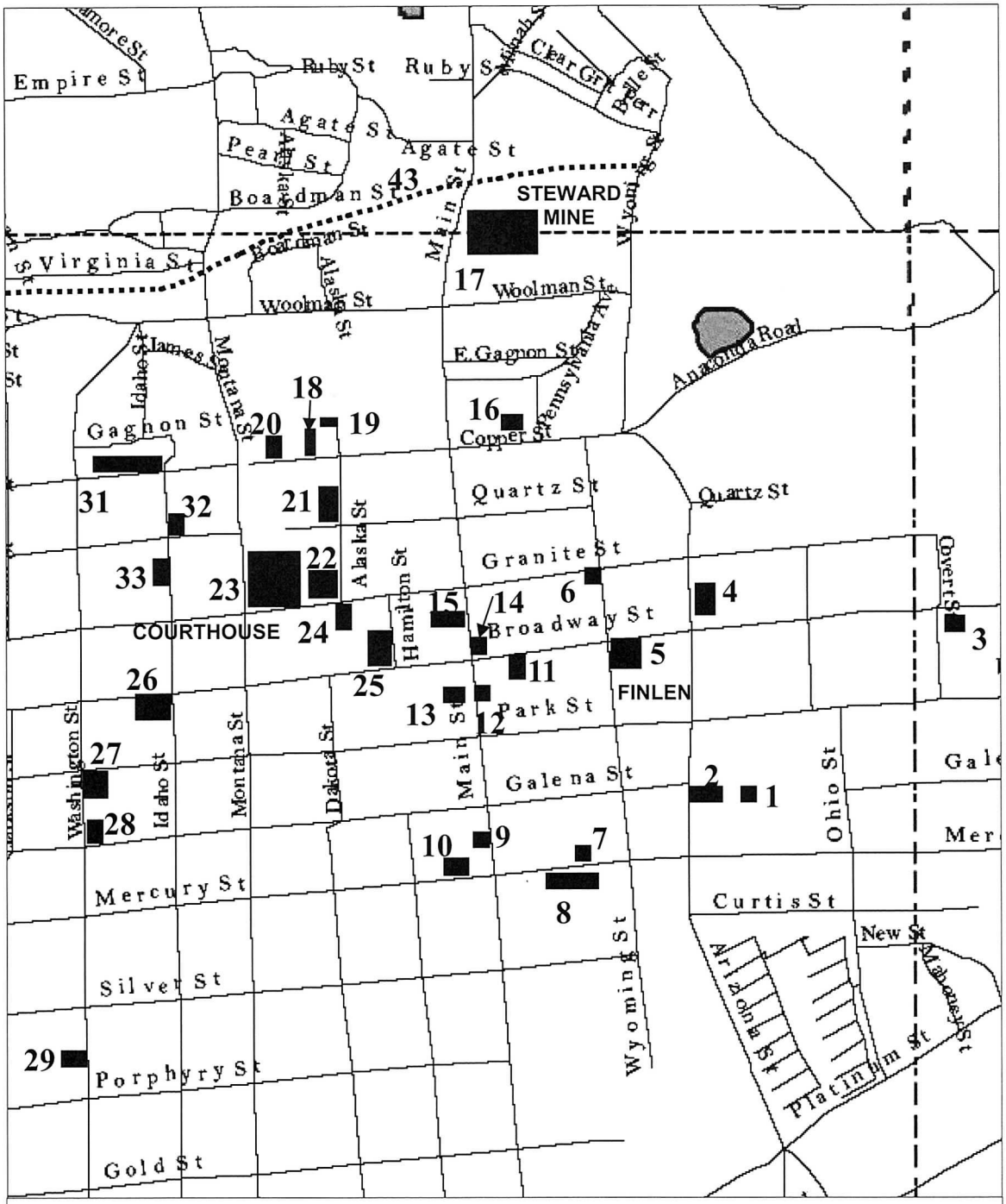
We invite you to explore!

[1] Myron Brinig, Wide Open Town (1931)
[2] *Time* Magazine (1928)
[3] Joseph Pennell, *Wonders of Work,* (1916)
[4] Kinsey Howard, *Montana: High, Wide and Handsome* (1943)
[5] attributed to Police Chief Walter Shay (*ca.* 1936)
[6] Mary MacLane, *I, Mary MacLane: A Diary of Human Days* (1917)
[7] Gertrude Atherton, *Perch of the Devil* (1914)
[8] Mary MacLane, *The Story of Mary MacLane* (1902)
[9] Dashiell Hammett, *Red Harvest* (1929)
[10] Charlie Chaplin, *My Autobiography* (1964)
[11] Warren G. Davenport, *Butte and Montana Beneath the X-Ray, 1907-08* (1909)



Ore car


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W
E
S
Horne St
Empire St
Waukesha St
Lewis St
Antimony St
Woolman St
Caledonia St
Copper St
Quartz St
Granite St
Park St
Galena St
Mercury St
Silver St
Diamond St
Porphyry St
Gold St
Platinum St
Steel St
Aluminum St
Iron St
Empire
Woolman St
Copper St
Diamond St
Porphyry St
Emmet Ave
Henry Ave
Western Ave
Prospect Ave
Excelsior Ave
Girard Ave
Montrose Ave
Alabama St
Clark St
Crystal St
Jackson St
Crescent St
Washington St
Travonia St
Edison St
Franklin St
Boardman St
James St
Jasper St
BA&P RR TRAIL
ANSELMO MINE
MONTANA TECH
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INDEX MAP TO BUTTE DAY LOCATIONS

No inside access at No. 8, 21, 33, 44.
Evening reception access only at No. 11, 12, 14

0 0.1 0.2 0.3 0.4 0.5 MILES

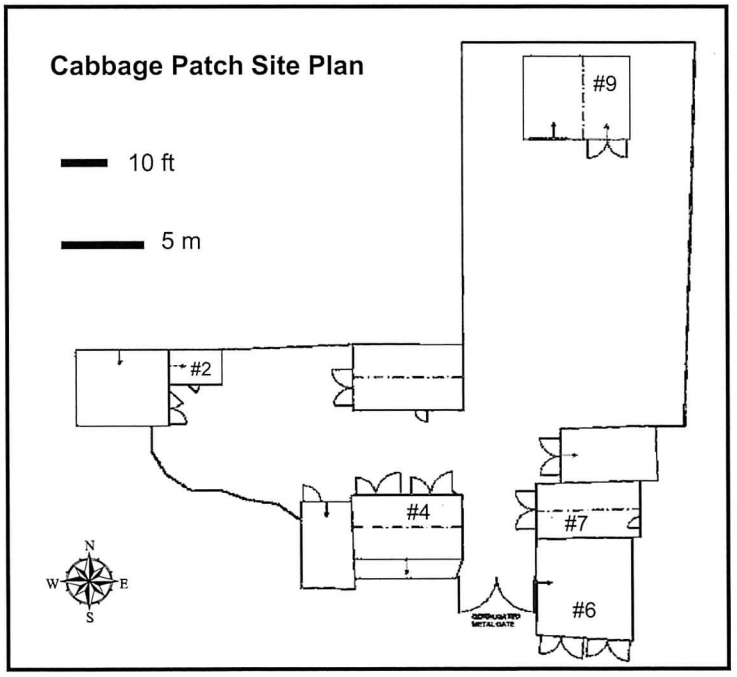
Base map from Butte-Silver Bow County GIS Department

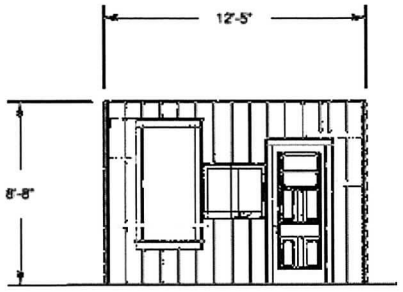
SITES

Site descriptions and sidebars in the Butte Day section are by Richard Gibson except as noted.

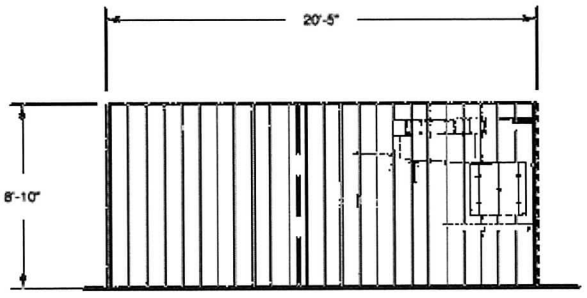
1. Cabbage Patch
108½ South Arizona Street
Built: pre-1891

These shacks and outbuildings were at the extreme north end of the shanty town that grew up in the 1880s on the near southeast side of Butte's main business district. The "Patch" was home to bootleggers, drunks, prostitutes, poor families, newly arrived immigrants, widows, criminals, and other down-on-their luck residents. Construction is truly vernacular, using

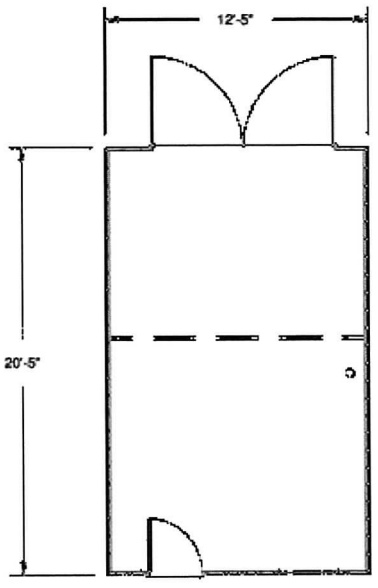




EAST WALL
INTERIOR ELEVATION
CABBAGE PATCH #7

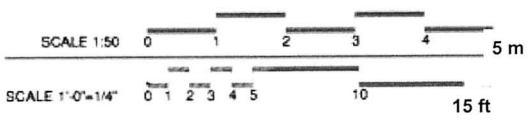


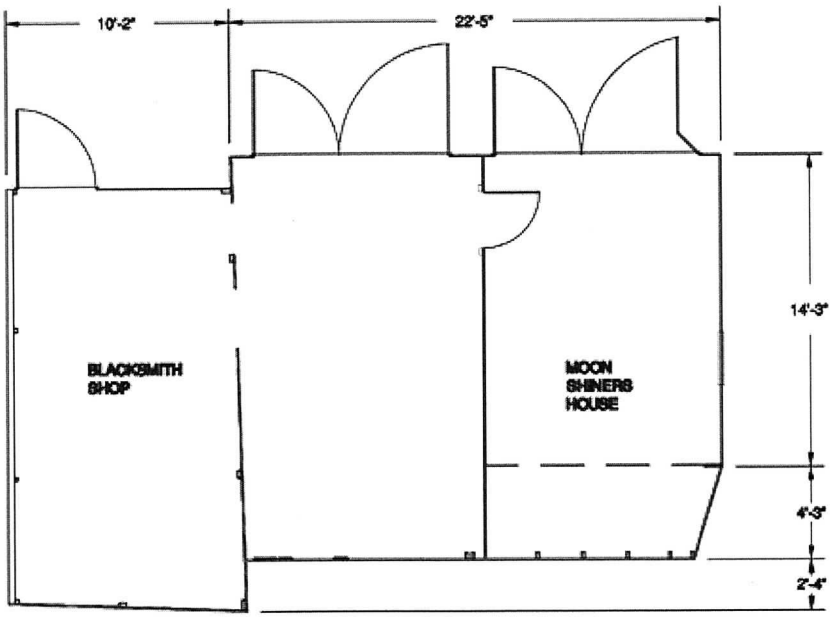
NORTH WALL
INTERIOR ELEVATION
CABBAGE PATCH #7



FLOOR PLAN
CABBAGE PATCH #7

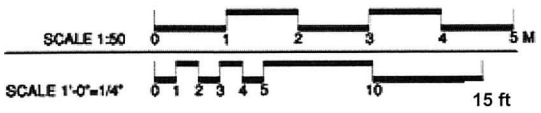






FLOOR PLAN
MOON SHINERS HOUSE/ BLACKSMITH SHOP #4

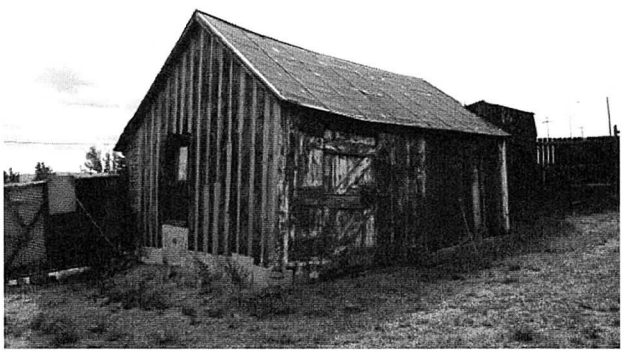




available materials, scavenged or stolen from waste piles, mine yards, and elsewhere. In 1916, the Cabbage Patch extended approximately from Arizona Street on the west to Oklahoma St. on the east, and from Galena (and its extension) on the north to Platinum or Porphyry on the south. Most of the buildings – more than 200 – were razed in 1941 to make way for Silver Bow Homes, the ranks of low-income apartments that still stand south of Mercury Street. At about the same time, the buildings here were converted to garages, with addition of flooring and large garage doors. When used as residences, these places had dirt floors, and no electricity, running water, or sewer systems. Important original elements include scraps of linoleum and loose fabric used as wallpaper and insulation, and pressed tin and wood timber walls. The name reflects the frequent use of cabbage in meals—that smell, combined with that of the open sewer that wound its way through the district, contributed to the seedy feel of the neighborhood.



Cabbage Patch. Photos by Rebecca Sheppard.

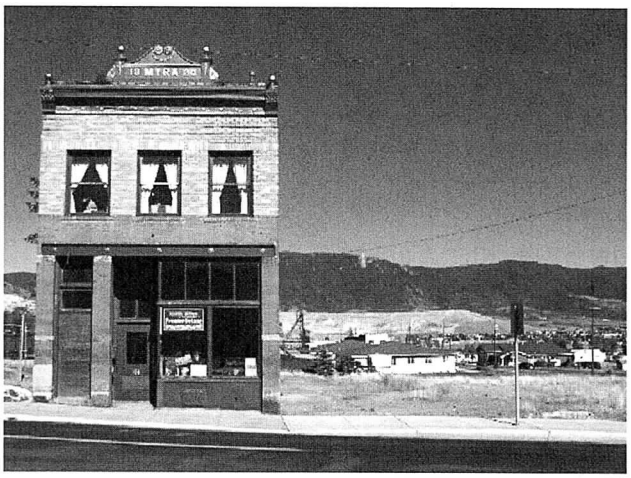


All Cabbage Patch fieldwork by Rebecca Sheppard, Victoria Walker, Anna Blinn Cole, Stephanie Shaw, Kimberly Toney, Elyse Poinsett. Drawings by Anna Blinn Cole, Elizabeth Peebles, Elizabeth Durbin.

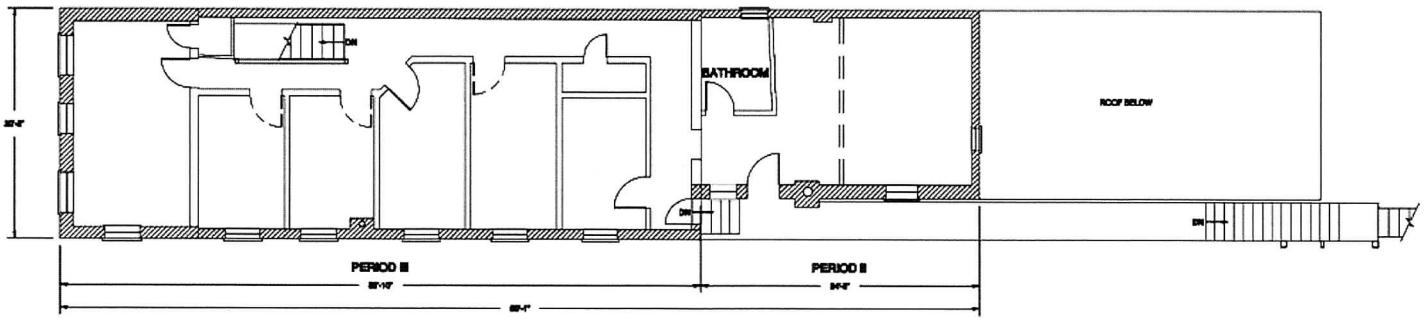
2. Tony's Tin Shop & Myra Brothel
108 S. Arizona Street
Built: c. 1914- c. 1925

The oldest section of this building is the front 12 feet of the first floor, built as Tony's Tin Shop in 1914-15. The shop grew to the east in at least two additions before 1920, when the second floor was added as a small boarding house. By 1925, the upper floor was rented to a couple who lived in the eastern extension of the second floor and who operated the front portion as a brothel according to family history. The family – Tony and Mary (Myra) Cononica – lived in the add-on section east of the first floor tin shop.

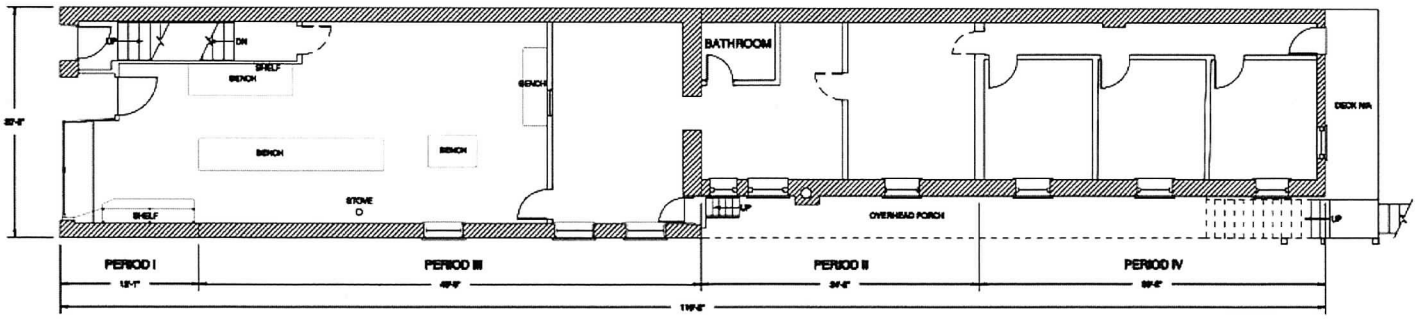
Original elements of the building are preserved because it remains in the same family; the tin shop has never served any other role. The boarding house/brothel upstairs is relatively small, and would have been a fairly upscale brothel, falling somewhere between the high-class parlor houses and low-end shacks called cribs.



East-looking view of Myra Brothel (above) and Tony's Tin Shop (below). Belmont Mine headframe in distance with East Ridge beyond. Photo by Richard Gibson.

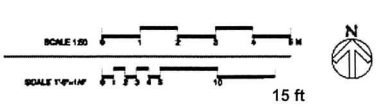


SECOND FLOOR PLAN



FIRST FLOOR PLAN
BROTHEL & TONY'S TIN SHOP

Fieldwork by Rebecca Sheppard, Victoria Walker, Maire O'Neill, Elyse Poinsett, Stephanie Shaw, Anna Blinn Cole. Drawings by Melissa Archer.



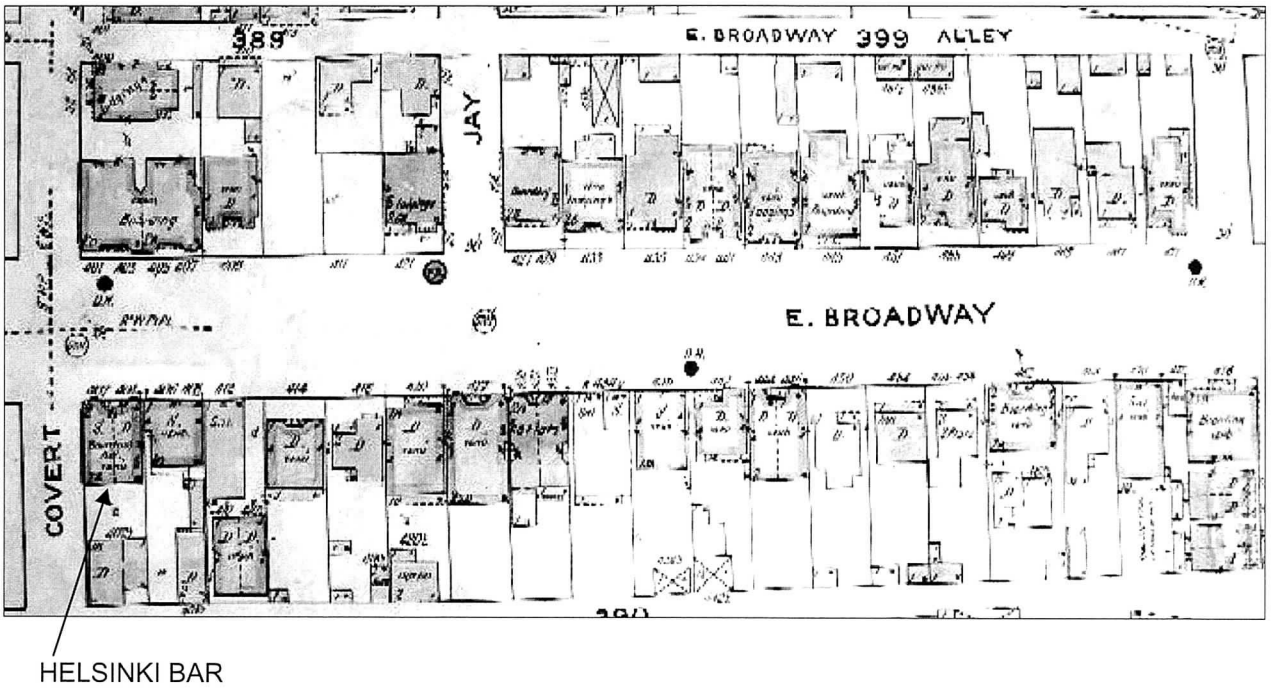
3. Finntown Neighborhood
East Broadway Street

Finntown was a small neighborhood clustering mostly on East Broadway east of Arizona Street, together with adjacent parts of Granite and Park Streets. The neighborhood was noted for its many boarding houses—at least 18 on East Broadway between Arizona and Oklahoma Streets. The Florence Hotel (200 block of E. Broadway, west of the extant Broadway Café) was known as the "Big Ship" – where "there was enough liquor consumed in a weekend to float a ship. A mighty big ship at that." The neighborhood was en route from many of the mines on The Hill to population centers in Corktown, Central Butte, and other areas, so it became a natural stopping-off place for hungry and thirsty miners. The huge, tasty 50-cent meals available as well as lodging, the saunas, and the bars all made Finntown popular with the entire community. Some dining rooms served 600 meals a day.

Most of the buildings on East Broadway and East Granite Streets are gone, and the streets themselves end at the grassy berm which is a reclaimed outer slope of the Berkeley Pit. The threat of Pit expansion meant severe neglect; no one wanted to fix up a property that was destined for bulldozing. The end of Berkeley Pit operations in 1982 came too late to save much of this neighborhood, where a few homes, the Broadway Café, and the Helsinki Bar are the only remnants of Finntown.

Reference
Kearney, Pat, 1998, *Butte Voices: Mining, Neighborhoods, People*: Skyhigh Communications, Butte; 409 p.

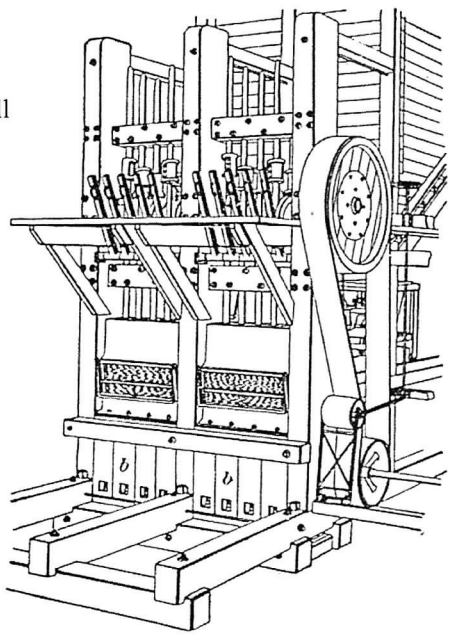
Sanborn Fire Insurance Map of East Broadway Street in 1916. The Helsinki Bar, 402 E. Broadway (southeast corner of Broadway and Covert) is the only surviving building in this section.



4. Lexington Stamp Mill, Lexington Gardens, Broadway and Arizona Streets

This 10-stamp mill, used for crushing ore, is among the oldest surviving in Butte. The machine is thought to date to 1867. In 1884 it was housed in a mill complex at this site that measured 100 feet by 100 feet, including extensions; the present orientation of the stamp mill reflects its original configuration, at an angle to the street system (Broadway Street did not extend beyond Arizona at that time). Much of the structure was occupied by washing and settling tubs where the output from the stamp mill itself was processed. The complex included a carpenter shop, wood room, repair shop, oil room to supply the kerosene lamps that lit the facility, an assay room with furnace and retort, a dressing room, and a melting room with furnace. The Lexington stamp mill could crush eight tons of ore per day, and was "in operation constantly" in 1884. By 1888 the mill had closed. The associated Lexington Foundry was just southeast of the mill, on Park Street half a block east of the intersection with Arizona Street, and Butte's first high school, Washington, was just northeast of the location of the Lexington Stamp Mill.

A typical stamp mill



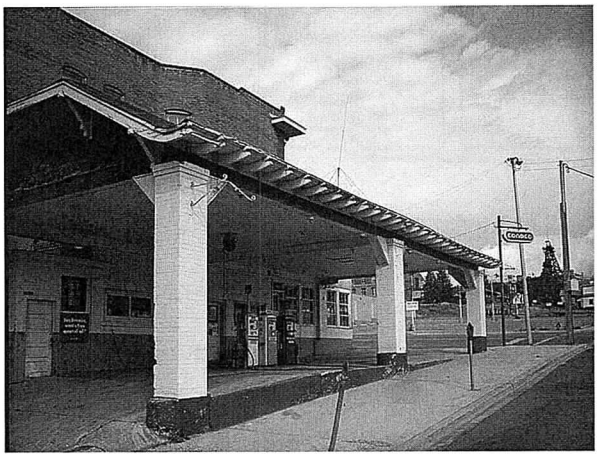


5. Finlen Hotel, 100 East Broadway Street

Built in 1923, the Finlen is one of the few major buildings erected in Butte in the period just after World War I. The decline in demand for copper to make shell casings meant that Butte was in something of a depression a decade before the Great Depression began in 1929, and this building reflects that economic decline. Intended to mimic New York's twin-towered Astor Hotel, the Finlen's second tower (on the east side) was never finished. Nonetheless, the hotel became the preeminent traveler's rest in Butte, housing all prominent visitors from Charles Lindbergh to John F. Kennedy. Much of the interior represents preservation rather than restoration: the textured plaster in the columns of the Treasure State Ballroom is original, as are most of the interior features on the ground floor. Much of the hotel is dedicated to residential apartments today. The height of the west tower, with copper shingles and Second Empire design at the top level, is 135 feet. The red neon sign atop the building was erected in the 1930s

6. Gas Station, Wyoming at Granite Street

This is one of the oldest gas stations in Montana, dating to about 1927. It was in use at least until the late 1970s. Jerkin-headed gables mark the north and south rooflines of the 23'x54'structure. Transfer of ownership, preservation, and development are challenges because of presumed leaky underground storage tank problems.



The gas station in 1979. Steward Mine headframe in distance at right. Photo by Jet Lowe. HAER MONT,47-BUT,1-79.

BUTTE'S RED-LIGHT DISTRICT

Butte's long-lived red-light district rivaled San Francisco's Barbary Coast and New Orleans' Storyville in repute and numbers. Estimates vary, but it is likely that at the peak (1895-1920), at least 1,000 women worked as prostitutes in conditions ranging from elegant parlor houses to ramshackle spaces called cribs. The District extended but a few blocks, centered on Mercury and Galena Streets between Arizona and Main. Important parlor houses included the Windsor (9 East Mercury; destroyed by fire in the 1960s), where madam May Malloy famously ejected reformer Carrie Nation when the latter came to Butte in 1910. The Dumas is the only surviving parlor house, and the Blue Range across the street is the only surviving example of crib architecture.

Despite Butte's reputation as a "wide open town," city fathers waged an ongoing but usually losing battle with the District. Houses of prostitution were declared public nuisances as early as 1890, with attendant fines that were rarely if ever levied. The District was shut down at the end of January 1911, but by late February things were back to "normal." Although red-light districts were illegal in Montana from 1917 onwards, several Butte brothels operated openly into the 1960s and 1970s by virtue of police pay-offs. The Windsor's last madam, Bev Snodgrass, alleged that her failure to pay resulted in the police-managed fire that destroyed the building in 1968.

—Richard Gibson

References

Astle, John, 2004, *Only In Butte: Stories Off the Hill*: Holt Publishing Group, Butte, p. 238-248.

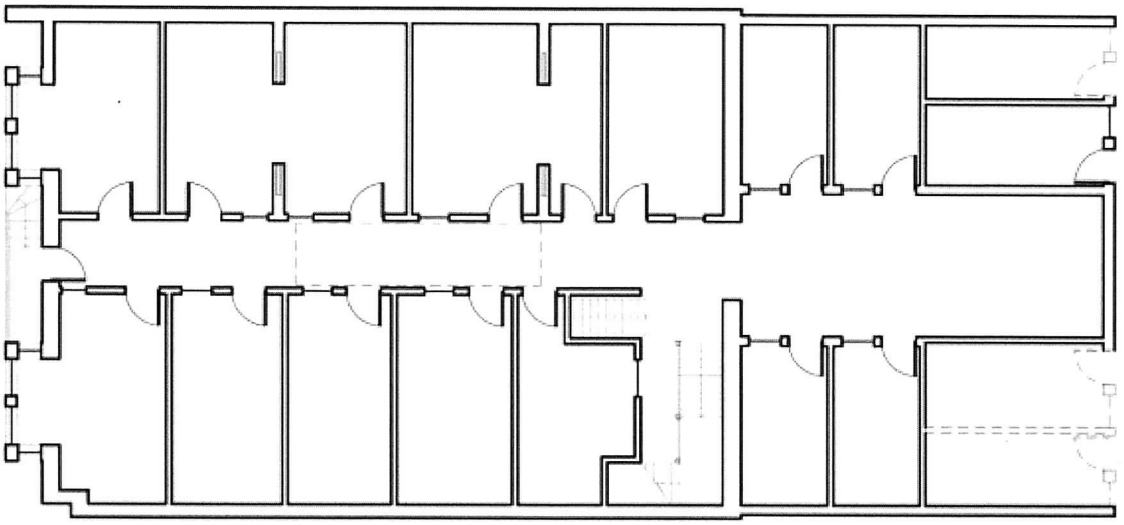
Baumler, Ellen, 1998, Devils Perch: Prostitution From Suite to Cellar in Butte, Montana: *Montana, The Magazine of Western History*, Montana Historical Society, Helena, Autumn, 1998, p. 4-21.

Rickey, Les, 2004, *The Bad Boys of Butte*: Old Butte Publishing, Butte, p. 41-81.

See also Ellen Baumler's presentation, "Montana and the Hidden Landscape of Prostitution", VAF Annual Meeting, Butte, Montana, June 13, 2009.

7. Dumas Brothel, 45 East Mercury Street

The Dumas Brothel is the only surviving three-story Victorian brothel building in the U.S. It was built in 1890 as a bordello and operated until 1982. The Dumas operated as a museum from the 1990s to 2004, and reopened in that capacity in 2008. It still has tiny cribs in the basement, several parlors, and central hallway lined by guestrooms. The second-floor hallway is expanded to accommodate a balcony which allows light from the

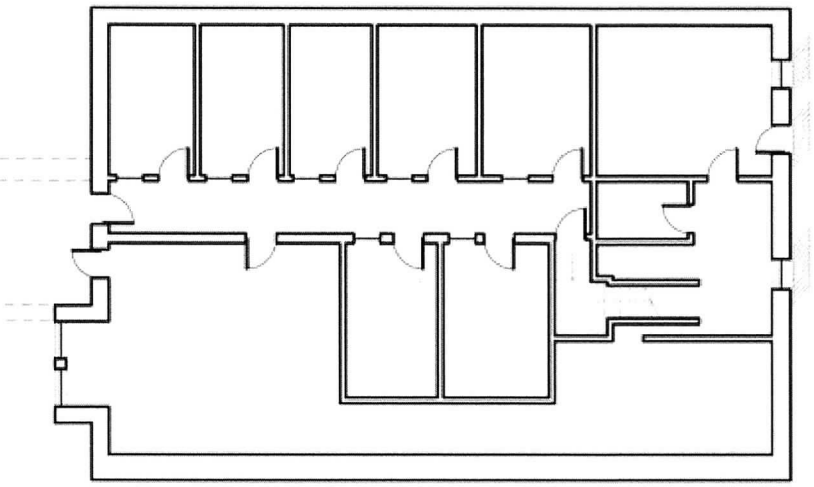


Dumas: Ground floor



Dumas Fieldwork: Martina Parrish, Lesley Gilmore, Amanda Moore, Koshlan Mayer-Blackwell, Maire O'Neill.
Drawing team: Todd Lampinen, Martina Parrish

Dumas: Basement

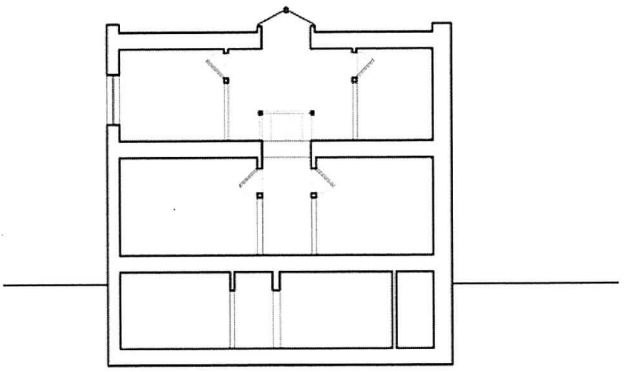


skylight to reach both floors. It is the only 3-level parlor house remaining in the heart of Butte's once thriving red-light district, the second largest in the West (after San Francisco's Barbary Coast).

Private donations and the sponsorship of Butte Citizens for Preservation and Revitalization funded the replacement of roofing and crumbling interior load-bearing masonry in 2008, stabilizing the building. The structure remains threatened, with walls separated from the primary structure.



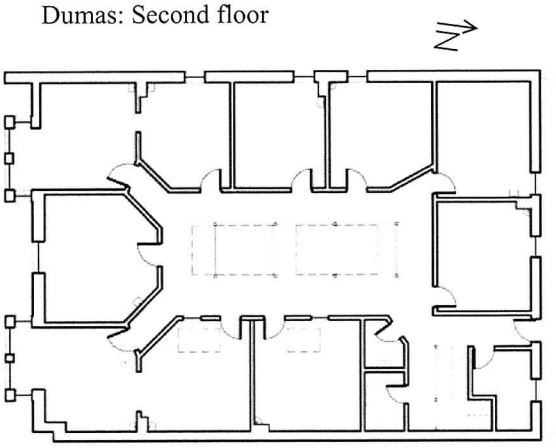
Dumas: Cornice detail. Photo by Richard Gibson.



Dumas: Transverse section

20 ft

Dumas: Second floor

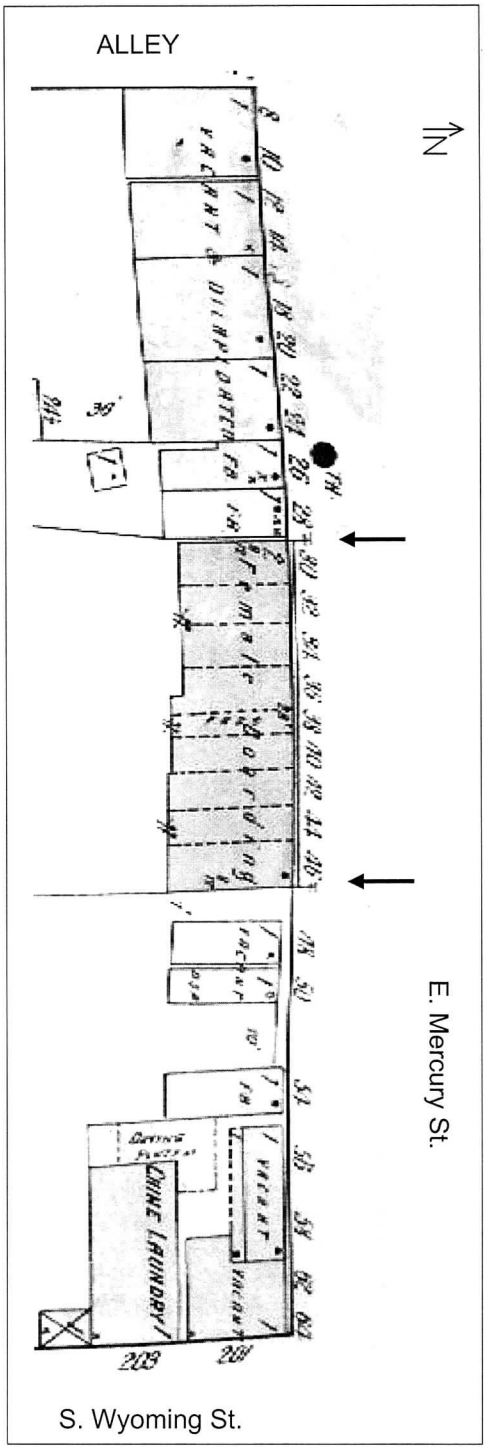


8. Blue Range, 56 East Mercury Street (NOTE: no interior access; photo p. 110)

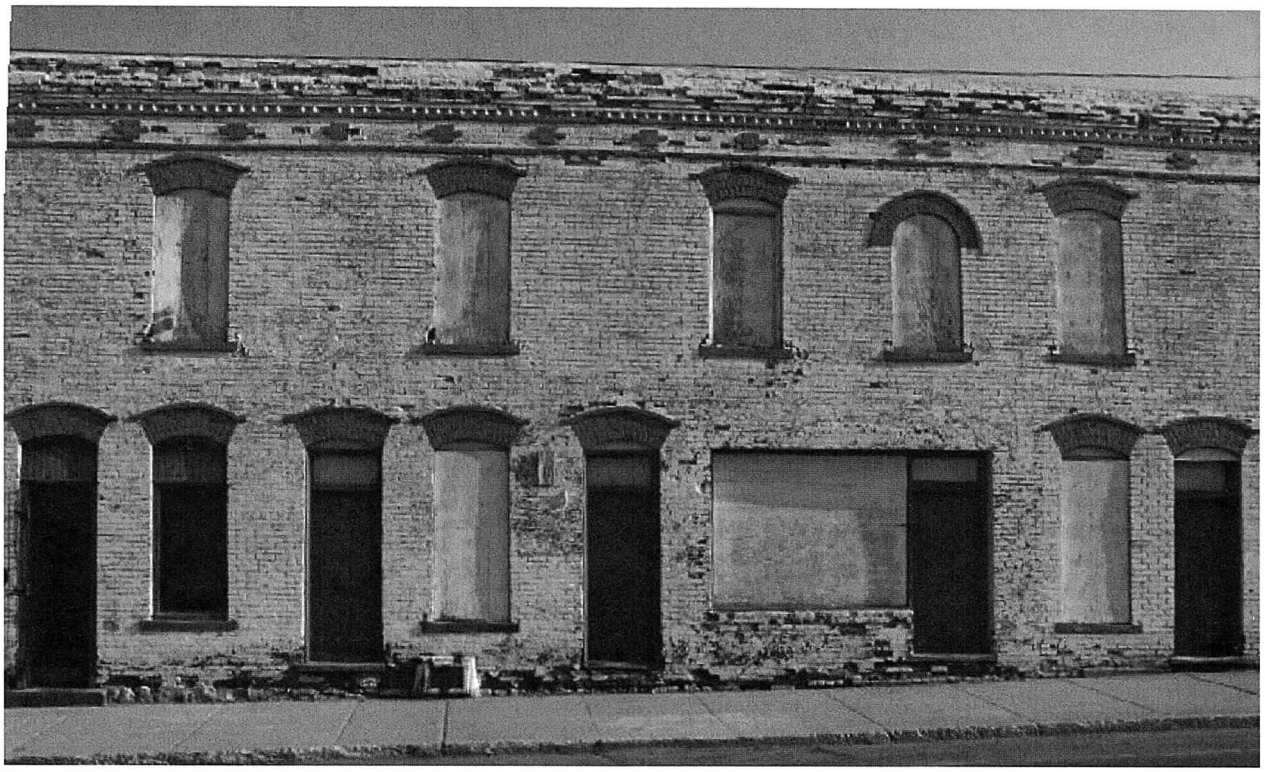
This last surviving set of street-facing cribs in Butte was constructed about 1897. The door and window arrangement is typical of dozens of such establishments that line East Mercury and Galena Streets and the alleys and terraces between them and to the south. The building was constructed by wealthy Helena businessman Anton Holter, a member of the state legislature, Knight Templar, and real estate tycoon. Twenty different owners in the six years from 1896 to 1902 included Lee Mantle in 1900, when he had just completed a term as U.S. Senator. The building interior was extensively changed beginning in the 1950s to accommodate an auto repair business.

Reference

Baumler, Ellen, 1998, Devils Perch: Prostitution From Suite to Cellar in Butte, Montana: *Montana, The Magazine of Western History*, Montana Historical Society, Helena, Autumn, 1998, p. 4-21. Online at http://www.montanahistoricalsociety.com/education/cirguides/buttearticbaumler.asp.



Sanborn Fire Insurance Map of Blue Range block in 1916. The present-day building lies between the two arrows. Addresses on map are not consistent with modern numbering system.



Alternating door-window layout reflects the architecture of cribs built for prostitution. Blue Range building (1897), 56 E. Mercury Street, Butte. Photo by Richard Gibson.

CHINATOWN

Butte's Chinatown thrived from the 1890s into the 1930s. The district covered only a few blocks centered on West Mercury Street, bounded by Main, West Galena, and Colorado Streets and the alley between Mercury and Silver Streets on the south. Notoriously undercounted in censuses, Asians in Butte numbered at least 400 in 1900-1920, but Butte native Rose Hum Lee estimated Chinatown's maximum population at 2,532 inhabitants in 1910. The 1914 city directory listed 62 Chinese businesses.

Most Chinese came to America to prospect for gold or to find decent (if hard) work on the railroads. They were almost universally discriminated against, and the Chinese Exclusion Act of 1882 legalized restrictions on immigration at the national level. Economic pressures, such as the 1892 boycott of Butte's Chinese businesses, were aimed at driving their owners away. A state law taxing hand laundries the onerous amount of $10 per quarter targeted the 30 to 40 Chinese laundries in Butte and others in the state—non-Chinese steam laundries were exempt.

Despite the discrimination, Chinese eateries and herbal physicians were patronized by non-Chinese members of the Butte community. Dr. Huie Pock gained considerable fame and fortune for his services during the influenza epidemic of 1918.

Family societies known as tongs occasionally became embroiled in divisive long-term international battles known as "Tong Wars." In Butte the Tong Wars erupted most notoriously in 1921-22 and occasionally thereafter until about 1930. With the Great Depression, Chinatown declined like most of Butte, and by the early 1940s the population of Chinatown was about 50.

Chinese lottery games as practiced in Butte became the model for the modern game of keno.

The Mai Wah Society was organized in 1992 to preserve the Wah Chong Tai and Mai Wah buildings, and to promote and interpret the history of all Asians in the Intermountain West. In 2007, an archaeological dig in the vacant lot across the street from the Mai Wah unearthed more than 60,000 artifacts, many of them specific to the Chinese residents and businesses in that block.

—Richard Gibson

References

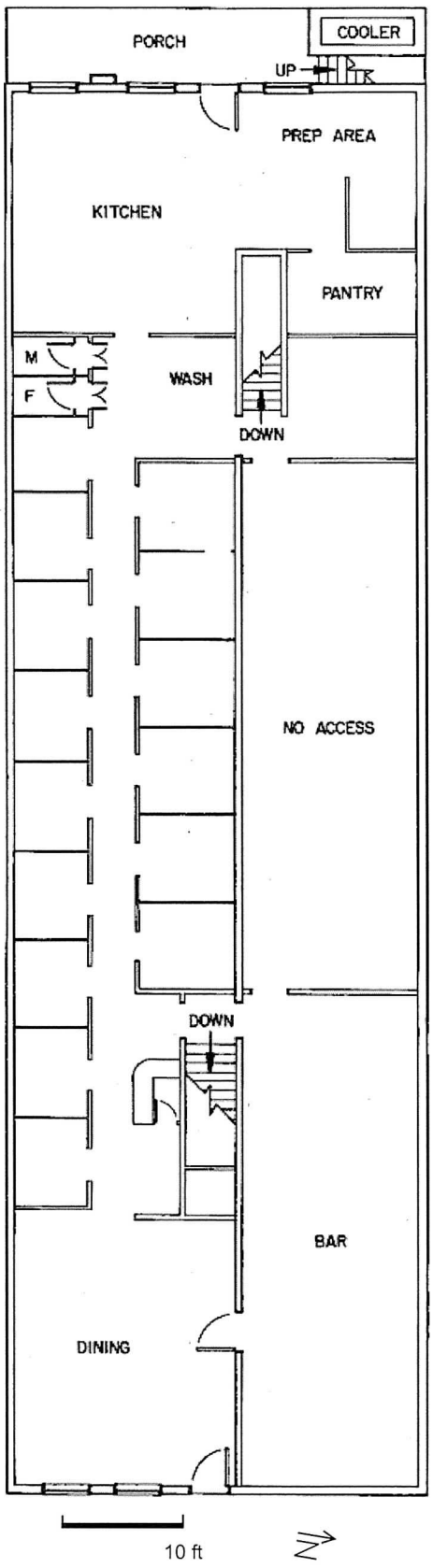
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Everett, George, n.d., The Butte Chinese: Mai Wah Society, Butte, 24 p.

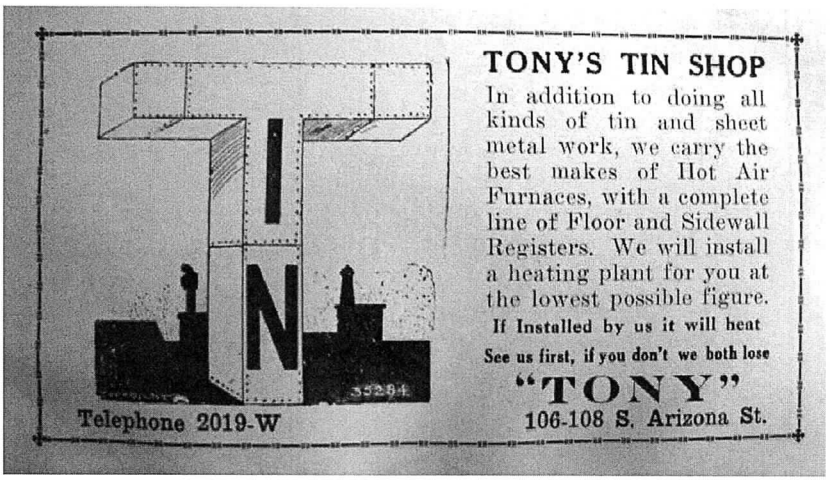
Lee, Rose Hum, 1960, The Chinese in the United States of America: Hong Kong University Press & Oxford University Press, 465 p.

9. Pekin Noodle Parlor
117 South Main Street

A classic example of "noodle parlor architecture," the second-floor restaurant has been in operation since 1916. The second floor was likely added to the building at about that time and has probably always housed a restaurant; the first floor contained two storefronts, one of which was a sign-painting business in 1916. Oft-repeated speculations that the restaurant booths were brothel cribs are probably myths. According to Montana historian Ellen Baumler, the restaurant may have served as a place of negotiation for use of the likely cribs in small "dwellings" attached to the rear of the first floor, especially during Prohibition (1919-1933 in Montana).



(Right) Second floor plan, Pekin Noodle Parlor. Fieldwork by Thomas Carter, Shanshan Luo, and Koshlan Mayer-Blackwell. Drawing by James Gosney.



Advertisement for Tony's Tin Shop in Butte City Directory for 1928. Courtesy Patty Dean.

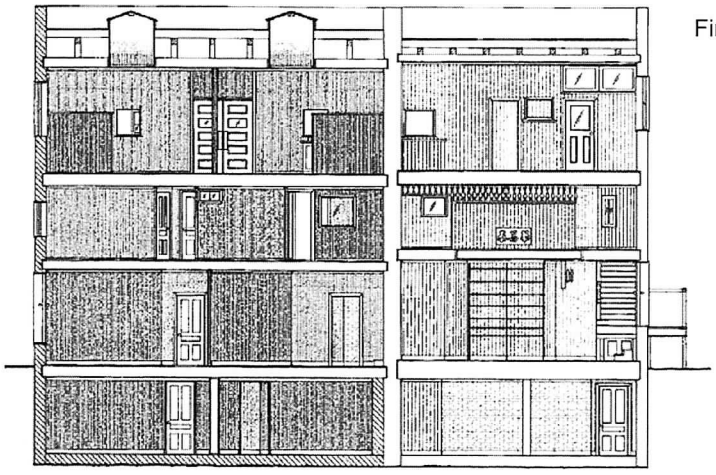


Photos in Venus Alley, between East Galena and East Mercury Streets, summer 1939. Photos by Arthur Rothstein for Farm Security Administration, Library of Congress call numbers LC-USF33- 003093-M1 and LC-USF33- 003094-M4.

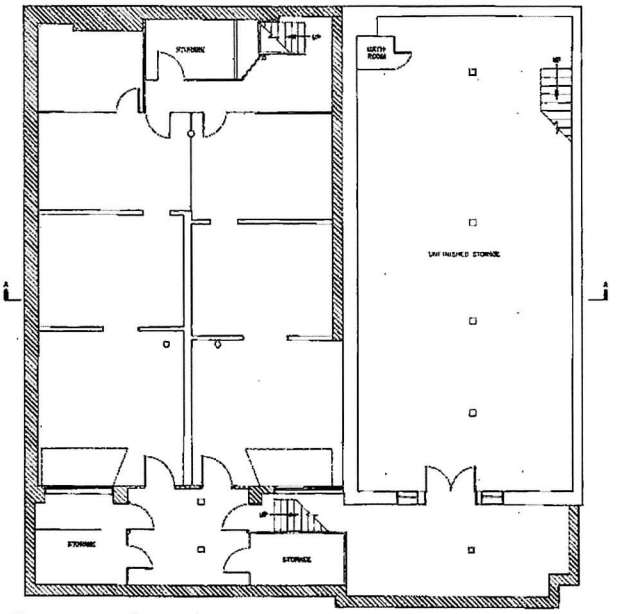
10. Mai Wah and Wah Chong Tai
15-17 West Mercury Street
Architect: George DeSnell (Mai Wah)
Built: 1909; 1899

These buildings have always been part of Butte's Chinatown, and are the least-altered survivors of that district. The Wah Chong Tai ("beautiful old China") was built for Chin Chun Hock, a successful Seattle businessman, in 1899 as a mercantile store with a restaurant upstairs accessed through the doorway on China Alley on the east side of the building. The open mezzanine level above the first-floor store was for display and storage as well as several small offices. The mercantile served as a local Chinese post office, bank, and social gathering place. The business also provided translation services to the local Chinese community.

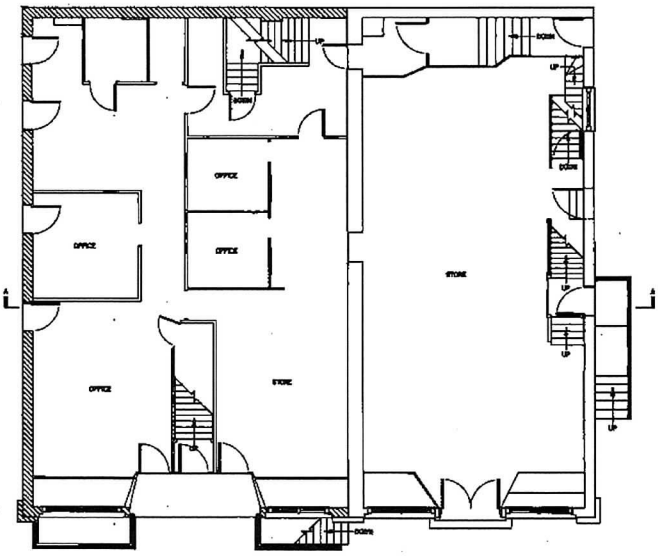
The Mai Wah ('beautiful, luxurious") Noodle Parlor (built in 1909 for the Wah Chong Tai company) had two storefronts on Mercury Street, with a central stairway to access the second-floor noodle parlor. The stove, designed for wok pans, built-in refrigerator, and other elements of the kitchen are still in place. The first floor contained several small, mall-like businesses. Between the first and second floors, a 6-foot-high "cheater story" accommodated overnight lodgers and small shops.



West-east section through Mai Wah-Wah Chong Tai.



Basement floor plan

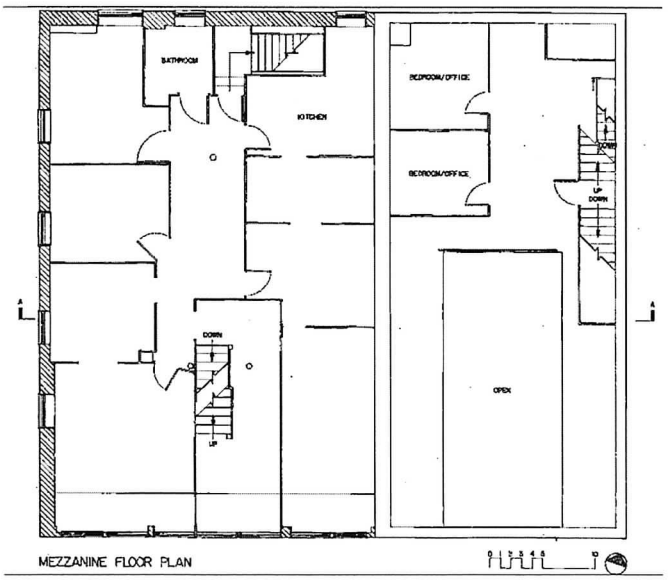


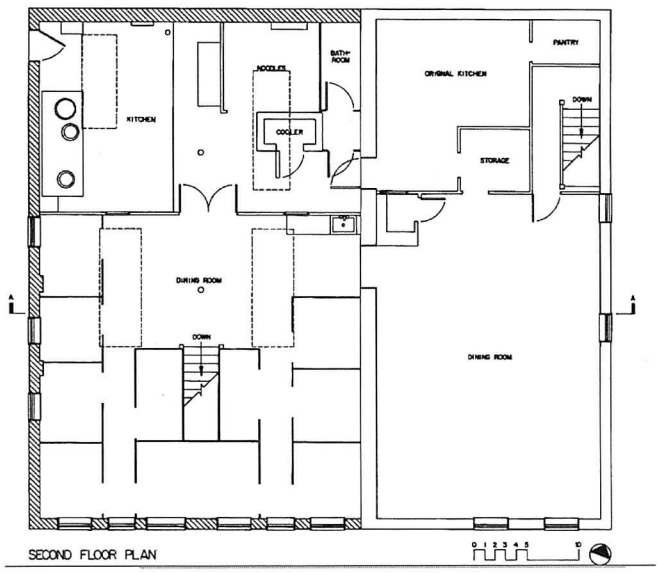
First floor plan

The additional level cheated the taxman because the building was essentially a two-story building, and tax rates were based on the number of floors.

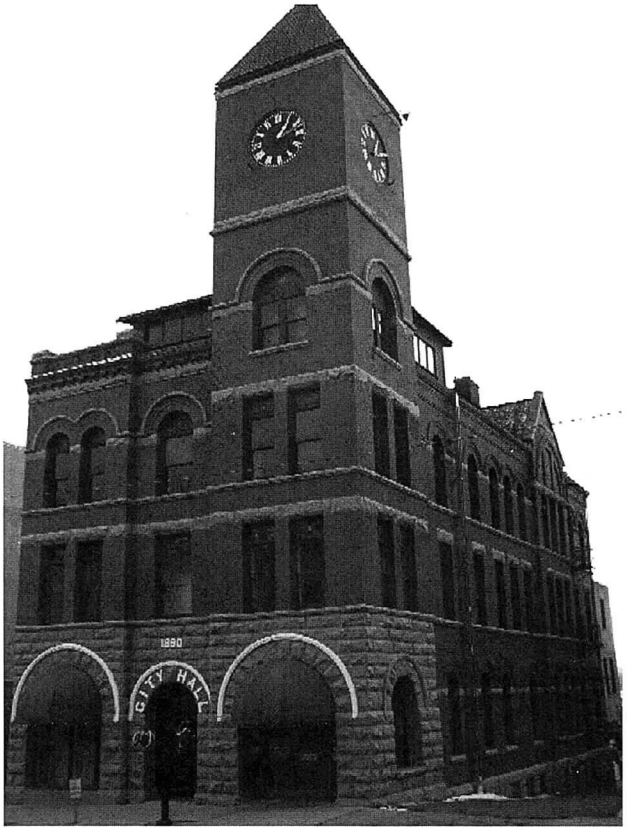
The Wah Chong Tai company passed into the ownership of Chin Yee Fong (Albert Chinn) in the 1930s, and remained in the Chinn family at least into the 1950s. The Mai Wah Society was formed in 1992 to

take ownership of the buildings, which were threatened with being sold for back taxes. Many of the original furnishings and artifacts survive in the Montana Historical Society Museum (Helena) and in Virginia City under the care of the Montana Heritage Commission. The latter, from the Wah Chong Tai mercantile, are planned to be returned to Butte to their original locations.





All Mai Wah fieldwork by Thomas Carter, Shanshan Luo, and Koshlan Mayer-Blackwell. Delineation by James Gosney.



11. Butte City Jail
24 East Broadway Street—alley entrance on west side. Access only during evening progressive reception.
Built 1890; in use, 1890-1971
Photo above by Richard Gibson

Butte's exploding population – from about 3,000 in 1880 to 30,000 in 1890 – demanded bigger and better buildings for everything. This is Butte's second city hall, replacing the 1884 structure at 116 W. Park (now a business). The jail was known as the "Butte Bastille" for its dungeon-like character. No temperature regulation meant that the inmates suffered temperatures ranging from 100°F and more adjacent to the building's boiler behind the drunk tank, to chilly discomfort in the more distant cells. North of the furthest cells ("dungeon" and "interrogation cell") police offices occupied the sub-sidewalk space on the north side of the city hall, visible through the hole in the interrogation cell. The ceilings

in those offices, and in the dungeon, consist of ranks of bricks laid on a metal lattice frame.

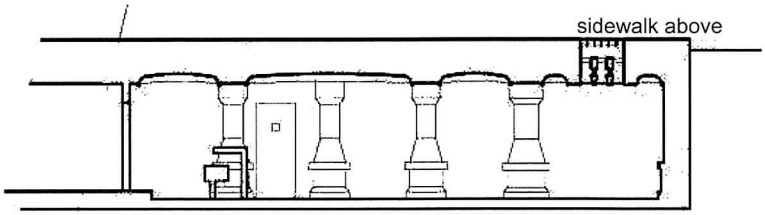
Mortared unshaped granite boulders comprise much of the foundation, best seen at the corner of the long hallway along the cells.

The main level of the city hall originally held the fire department. The large arched openings adjacent to the front entrance on Broadway Street contained doors through which horse-drawn fire wagons passed in response to calls. By 1900, an additional dedicated fire station had been built (today's Archives building, 17 W. Quartz) to help attack the all-too-frequent fires that plagued the city despite a 29-page building ordinance enacted in 1893 that mandated brick and stone construction for most business blocks. The clock tower has been lowered by one section from its original height.

The jail was in use until 1971, when a suspicious death by hanging at the shower stall compelled a decision to begin using the county jail (north of the county courthouse; currently the sheriff's department offices), which was just 20 years younger but much more modern. The upper floors of the city hall were abandoned in 1977 when the governments of the city and county were merged and all operations moved to the county courthouse on Granite Street. The adaptive reuse of the building as a doctor's office dates to 1999.

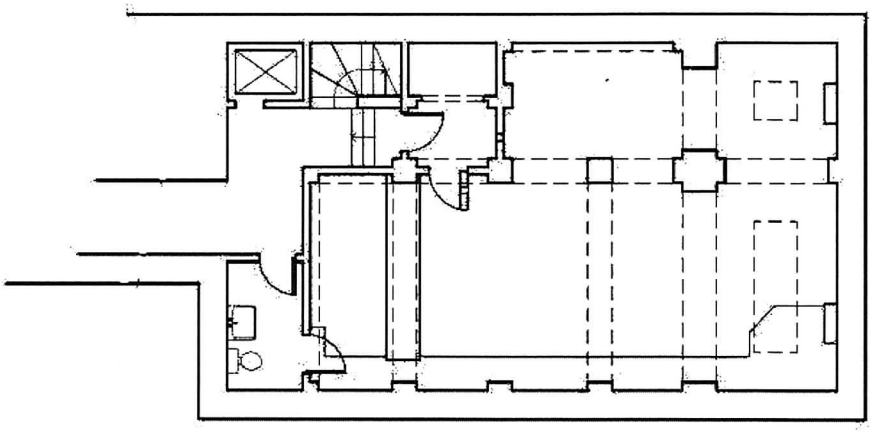
12. Rookwood Hotel, 24-26 North Main Street. Access only during evening progressive reception.
Built: 1912

Erected at a cost of $30,000 for a Mr. Pratt, this elegant hotel was perhaps the fanciest lodging for travelers at the peak of Butte's population growth in the 1910s. The building replaced several 1- and 2-story buildings including a hardware store, tin shop, and warehouse, all of which were heated from the central boiler at the Owsley Block (Butte Business College, a 5-story 1888 brick building that stood at the corner of Park and Main until it burned in 1973). The Rookwood is constructed of brick and reinforced concrete, and the yellow and green ceramic tiles on the façade are unique in Butte. The large copper cornice is also unusual; only a few Butte buildings carried such expensive



Longitudinal section

Rookwood Hotel Speakeasy. Fieldwork by Martina Parrish, Lesley Gilmore, Amanda Moore, Koshlan Mayer-Blackwell, Maire O'Neill. Drawings by Todd Lampinen and Martina Parrish



Basement plan

cornices, and only five remain. Apart from the first-floor business in the northwest section, the building retains most of its original plan and features, including extensive inch-thick marble wainscoting in the entry, wrought iron stairs, oak staircase, and carved and cast plaster columns and terrazzo tile floor in the basement. The non-functioning Otis elevator is from the original 1912 installation.

The small footprint (26'x100') may have led to the construction of the lobby bar in the basement instead of at ground level. In 1919, when Prohibition went into effect in Montana, the lobby bar was converted to a speakeasy by adding a Masonite-clad wall and door in the entryway.

By the 1930s the Rookwood was a residential hotel; it was abandoned by the late 1980s. The speakeasy in the basement, known to historians but not seen for many years, was rediscovered in 2004 and refurnished to serve as a museum. Original furnishings include the wall sconces, two surviving panes of stained glass in sub-sidewalk skylights, whiskey barrels, red lamp, bar, and the wall phone—all either original or dating to the Prohibition Era. The fire escape, in the alley on the east side (facing the City Hall) has an unusual spiral design.

THE IDEAL BAR

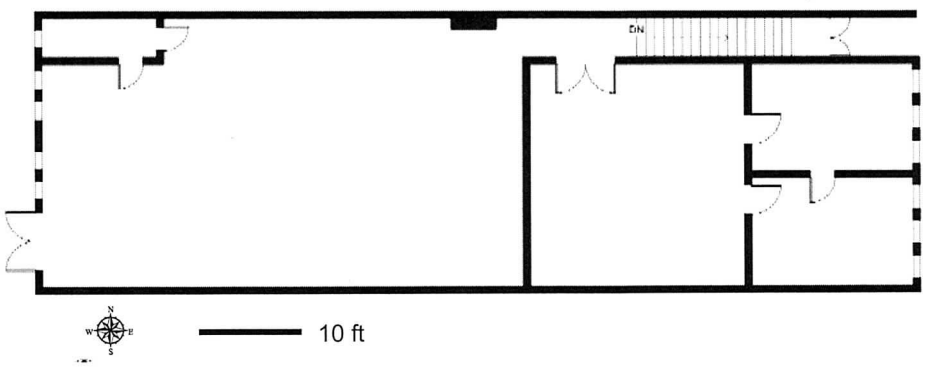
Jack Kerouac, poet of the beat generation, author of *On The Road*, visited Butte in 1949. His description of a Butte bar is usually assumed to refer to the M&M.

"It was Sunday night, I had hoped the saloons would stay open long enough for me to see them. They never even closed. In a great old-time saloon I had a giant beer. On the wall was a big electric signboard flashing gambling numbers. … What characters in there: old prospectors, gamblers, whores, miners, Indians, cowboys, tobacco-chewing businessmen! Groups of sullen Indians drank rotgut in the john. Hundreds of men played cards in an atmosphere of smoke and spittoons. It was the end of my quest for an ideal bar."

Esquire, March 1970: *The Great Western Bus Ride.*

13. M&M Cigar Store, 9 North Main Street
Built: 1890

Sam Martin and William F. Mosby gave their initials to this saloon when it opened in 1890, and famously removed the locks on opening day—and the doors were never closed for the next 113 years. A change of hands in 2003 shut the M&M for the first time; it reopened in 2005. The basement originally held a bowling alley; the second floor was devoted to gambling. The metallic façade on the first level, and the present neon sign date to the late 1940s-early 1950s. An earlier circular neon sign and "M&M" neon marquee advertised the establishment in the 1930s. The "cigar store" reference is a name change that



M&M Cigar Store, second floor plan. Fieldwork by Rolene Schliesman, Kent Good, and C. Riley Augé. Drawing by Jackie Little.



M&M and its neighboring bar, the Arcade, in 1939. Photo by Arthur Rothstein, Farm Security Administration, LC-USF33- 003128-M5.

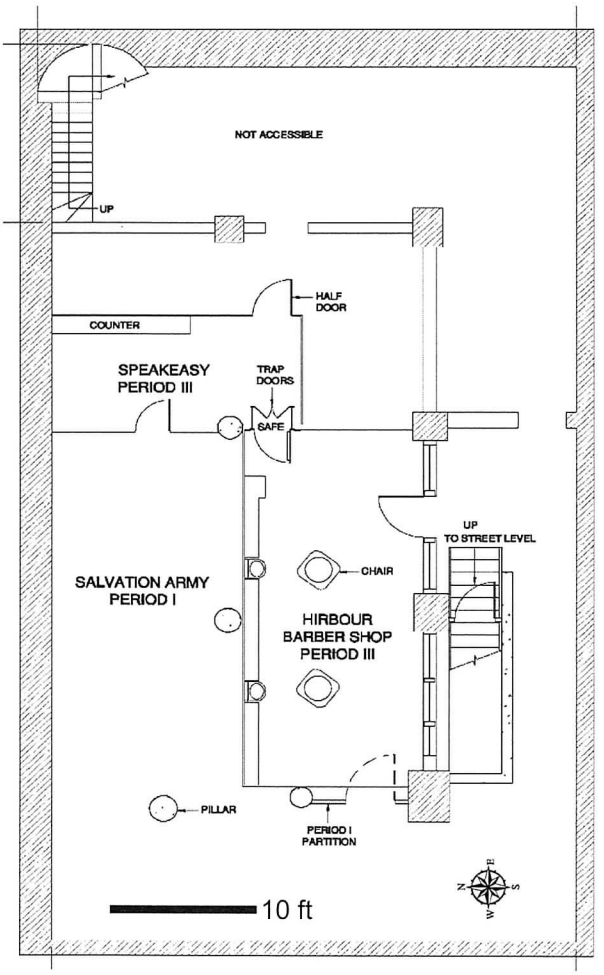
took place during Prohibition (1919-1933 in Montana). In Butte, it was common knowledge that a "cigar store" was a drinking establishment, and if local law enforcement agents were properly paid off, such businesses operated unencumbered for the most part.

14. Hirbour Tower, 102 North Main Street Built: 1901. Access only during evening progressive reception.

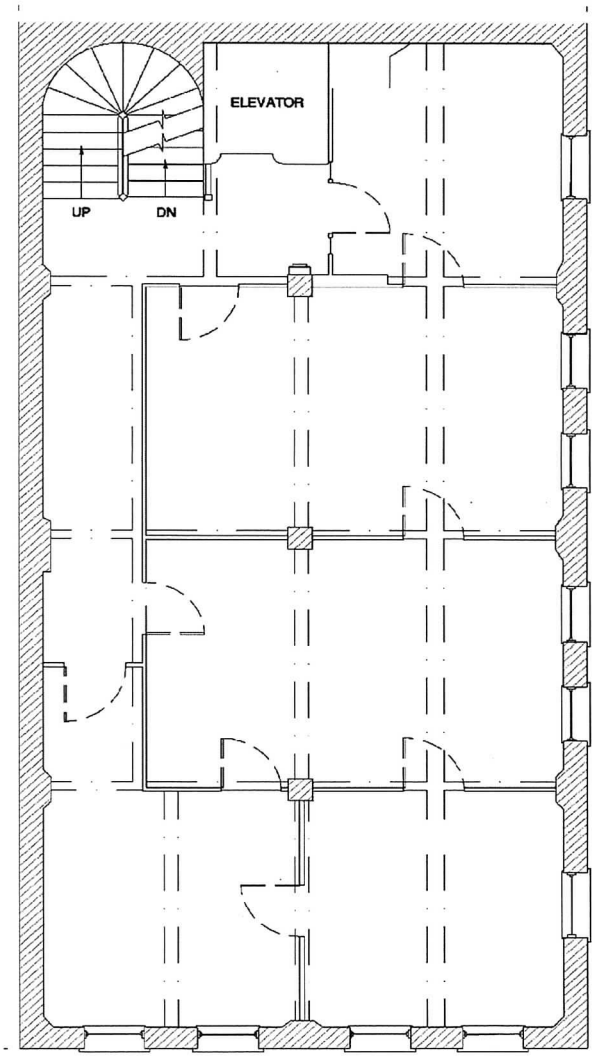
Research indicates that this eight-story building is the second skyscraper (steel girder construction) west of Minneapolis and St. Louis (the first is the Call Building in San Francisco, erected in 1898). The building measures 58 by 28 feet and is about 90 feet tall.



The basement, accessed via the public stairwell through the vaulted sidewalk, is the best-preserved sub-sidewalk storefront in Butte. Vaulted sidewalks were supported by brick or granite walls and floored with dirt or planks and contained grids of glass prisms to focus light into the vaults (a few survive on the north side of East Broadway Street near the Uptown Café). The space here, restored to the 1928-62 Hirbour Barber Shop, was initially home to the Salvation Army, followed by a courier company (c. 1905-1928). The "secret" back room provided access to the rest of the building and was used as a private drinking establishment for the barber's customers as recently as the 1950s; it was probably established during Prohibition at about the time the barber shop opened in 1928.



Hirbour Tower, basement floor plan. All Hirbour fieldwork by Anna Blinn Cole, Kimberly Toney, Kara Briggs, K. Green. Drawings by Anna Blinn Cole.



Hirbour Tower, fourth floor plan.

The tower contains a cast-iron staircase as well as cast-iron window casements on the ground floor. Emanuel Hirbour, who died before his building was finished, is memorialized in the terra cotta "H" emblems on the street-level façade. Although the two-story buildings to the north were present when the Hirbour was built, the north wall of the tower is essentially windowless, presumably in anticipation of later high-rise construction there. As was typical in Butte, the first floor was devoted to retail and the upper floors were offices.

15. Dellinger Block, 113-115-117 North Main Street (present address, 117 N. Main) Built: 1877-1890

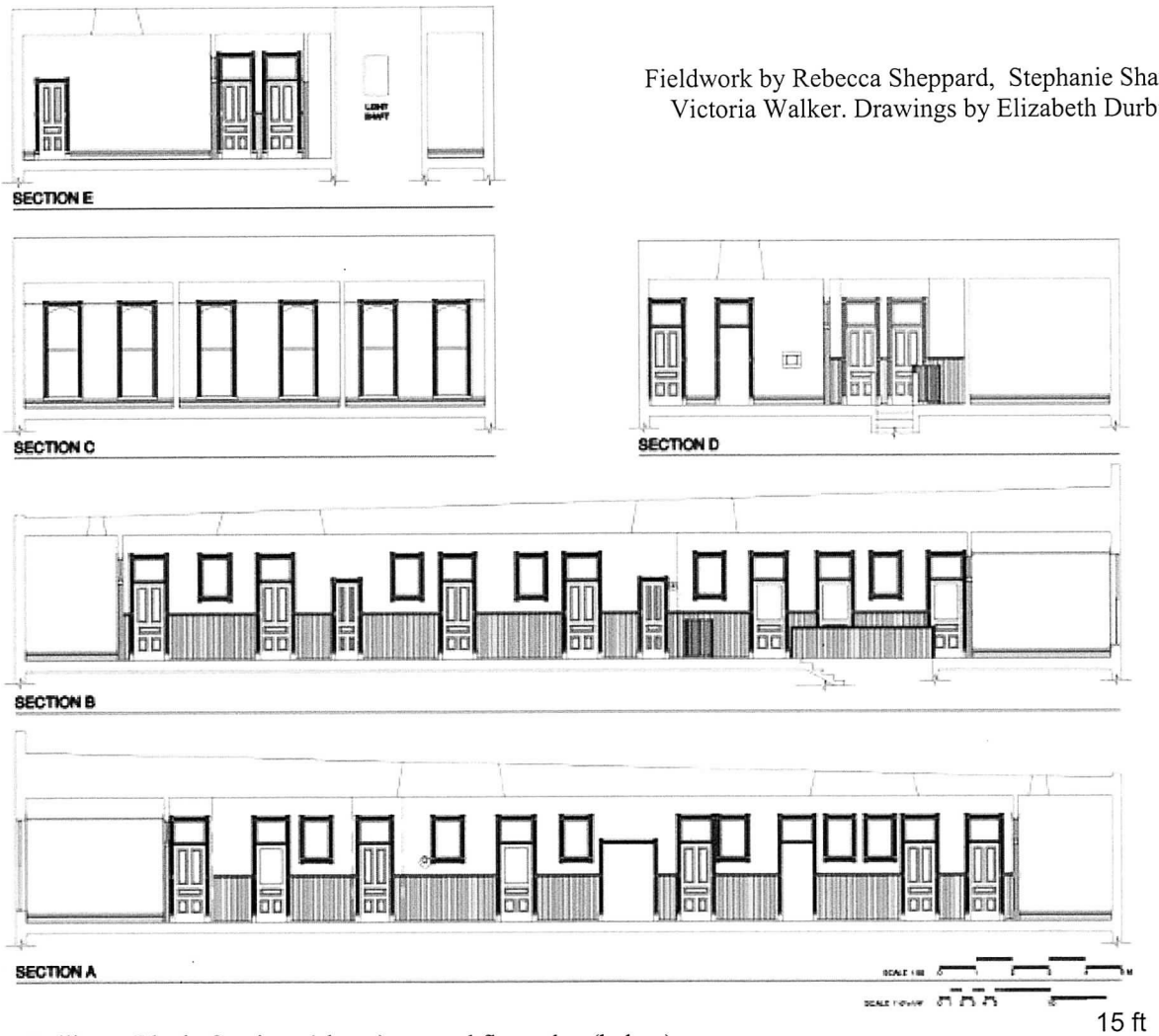
The south half of the first floor (#113, 20' wide) was constructed in 1877 for Wisconsin-born Daniel Dellinger's hardware store, one of the first in Butte. An adjacent one-story brick structure was erected to the north (#117, 18' wide) by 1884, and the second floor (#115) was added above both in 1890. The second floor was accessed by a stair between the two lower buildings.

The passageway above the alley behind this building existed by 1884, when it connected 117 to the middle level of the small building to the west, a store room. An exterior stair on the east side of that building, visible in outline from the alley, accessed the third floor level which may have been a two-crib brothel (indicated as "sleeping rooms" on Sanborn maps).

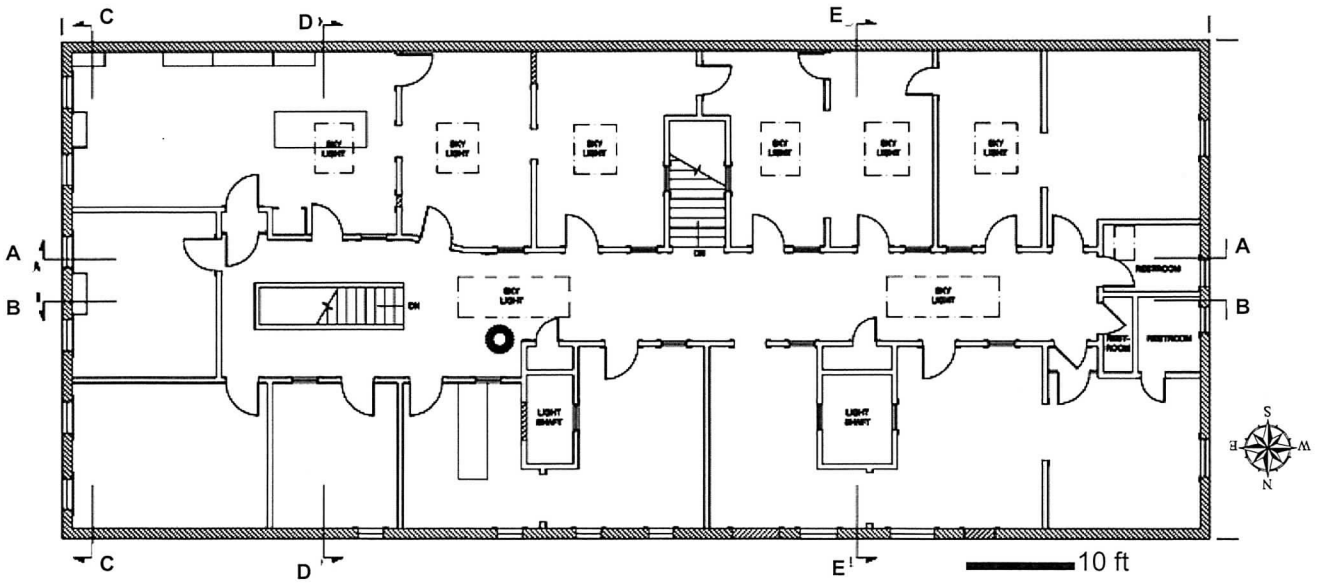
Stores on the first level have included Babcock's Furs, men's clothing, and grocers. The second level was offices for lawyers, collection agencies, and an employment company. In 1938, the upper level was abandoned and blocked off; in 1952, the stairway between 113 and 117 was removed as far up as the first-story ceiling making access to the second floor impossible; and the buildings at 113 and 117 were combined into a single store. Access to the upper level is now by way of a stair constructed in 2004, taking advantage of an old interior skylight shaft. The upper portion of the original central stairway is visible on the second floor.

Floor plans and sections on next page.

Fieldwork by Rebecca Sheppard, Stephanie Shaw, Victoria Walker. Drawings by Elizabeth Durbin.



Dellinger Block: Sections (above), second floor plan (below)



16. 31 East Copper Street
Architect: Herman Kemna
Built: 1910

This California bungalow is of primary significance in the Butte National Historic Landmark District because it is the only bungalow residence still standing in the eastern part of the district. It was the home for many years of Larry Duggan, a prominent Butte undertaker who also served three terms as Butte's sheriff.

The five-foot copper water heater in the basement was in use from 1910-1982. The stairway to the second floor (originally an attic) was probably added shortly after initial construction, as indicated by the off-center light fixture in the bedroom and door placement.

The residence was designed by architect Herman Kemna, and cost approximately $6000 to build. An article in the Butte Miner newspaper of July 3, 1910, describes the house thus: "In its many distinctive features lies the secret of the bungalow's attractiveness. Not the least of which is the flower oriel window facing the west, which is deeply recessed in the dining room and gives the bungalow a flavor of the Dutch architecture. There is a pleasing and decidedly novelty in the design of the front windows as well. These open on a great wide, well-shaded porch, the floor of which is of brown paving brick. This, together with the concrete steps, insures a cool porch in the warmest of summer weather."

—Irene Scheidecker

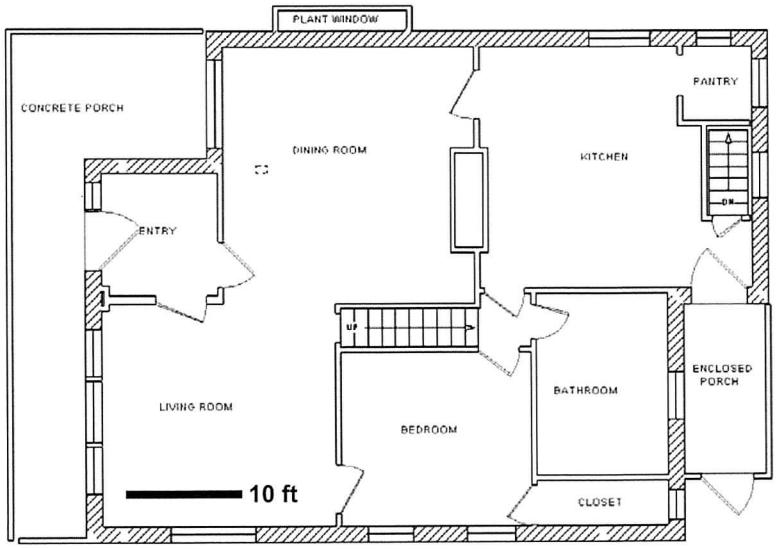
HERMAN KEMNA

Herman Kemna first appeared in Butte in 1898 working as an architect for H.M. Patterson. He remained with that firm until 1902. In 1903 he worked independently, and in 1904 joined the firm of M.D. Kern & Co. Again in 1905 he was working on his own. In 1906 he joined George Shanley. Shanley, who received his architectural training in Minnesota, came to Butte in 1904. Kemna remained with Shanley until 1910 then ran his own business until the end of his career. He is not listed in the city directories after 1923, and no death was recorded in Silver Bow County. His wife Margaret continued to live at their home at 724 S. Main. Two sons, one an operator for the Butte Electric Railway, the other an electrician at the Curtis Substation, lived with her.

Kemna designed several fine residences, among them a bungalow for Lawrence Duggan in 1910 (31 E. Copper), a two-story brick home at 739 W. Broadway, and one at 211 S. Jackson. He also designed several buildings in the central business district: The Cleveland Block at 39 E. Galena, the Thomas Block, the Daily Post building at 2 E. Galena, 126-132 S. Main, and the Phoenix Building on Park Street.

Kemna also designed the U.S. National Bank in Deer Lodge, built in 1910 on the lot of the old brewery, and the house at 635 First Street, Helena.

—Irene Scheidecker



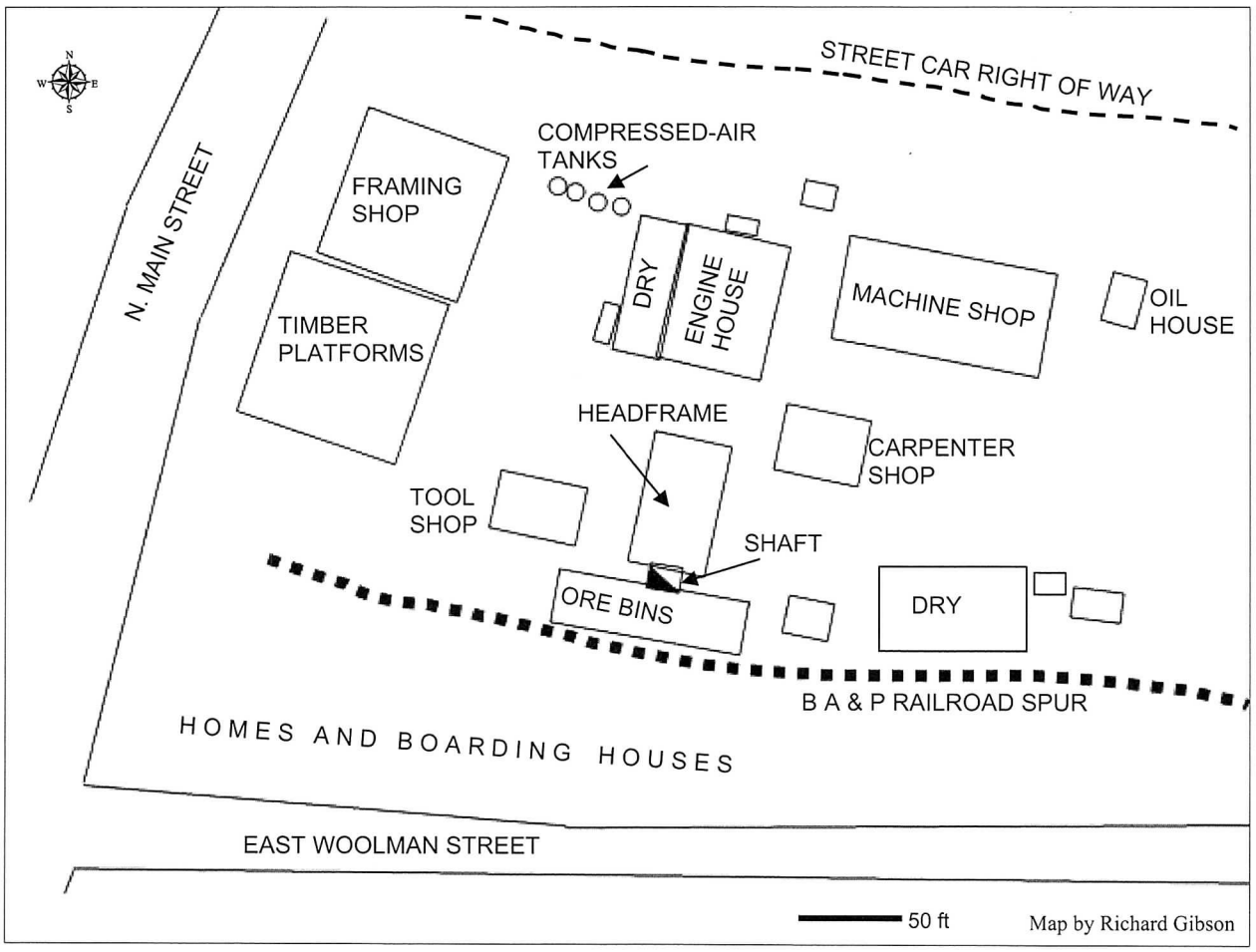
31 East Copper Street. Fieldwork and drawing by Irene Scheidecker.

17. Steward Mine Yard, North Main Street at Woolman Street
Headframe erected: 1898-1902; Engine Room (Hoist House, offices): 1891-1906

The Steward Mine claim was patented by W.A. Clark, John Steward, and others in 1877, but its active production began about 1900 when it reached 1000 feet in depth. It continued as one of Butte's most important mines until 1973, by which time it had reached 4,400 feet. It was one of Butte's hottest mines, with the lower levels known as the "Chinese Laundry" because of the high heat (100°-110°F) and humidity.

The 10- to 30-foot-thick Steward vein was rich in silver and contributed significantly to Butte's 1880s-1890s silver boom, but like most of the mines in central Butte copper was the primary product at the Steward. The headframe is 126 feet high and is among the older headframes surviving in place. The hoist engine—the huge spool around which was wound the cable that lowered and raised men and equipment and ore from the mine—was converted from steam to compressed air in 1906; the tower on the rear (north) side of the hoist building holds the compressed-air storage tank. This is one of few surviving steam hoist engines in Butte. W.A. Clark's mine buildings were typically brick, rather than the more common wood.

The site map below shows the Steward Mine yard as it was in 1916. Compare to the diagram on page 20 of *Butte & Anaconda Revisited.*



ANATOMY OF A HEADFRAME

Richard I. Gibson

You can find mine headframes in other mining districts, but Butte is unique in juxtaposing these massive industrial relics so closely with residential and business buildings in an urban setting.

Thirteen historic headframes—also known as "gallows frames"—survived the demise of underground mining in Butte. Subsurface operations at the Kelley shaft ended about 1980, but mining in most of the tunnels, drifts, and stopes served by the other headframes had ceased in the 1950s to 1970s. Today, they have become a trademark of The Mining City.

Nighttime brings a special look to the Butte hill, with more than half the headframes lit by red string lighting. The effort is paid for by members of the community and organized by MainStreet Uptown Butte.

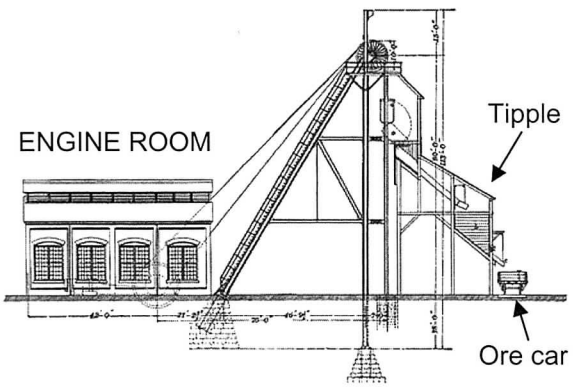
Although different in detail, most headframes have a few things in common. All were constructed to manage the men, equipment, and ore, and all were designed to handle a complex cable system.

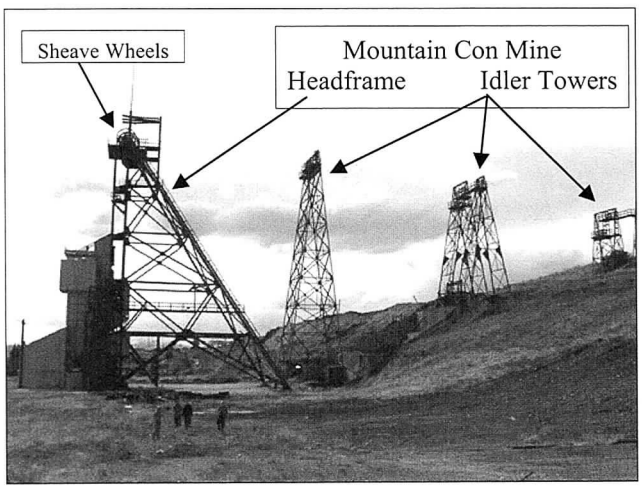
One end of the cable was wound around the huge hoist engine (inside the engine room, or hoist house). It exited that structure through a small horizontal rectangular hole, and climbed up and over the "idler towers." The shorter idler towers maintained tension in the cables and guided their position to avoid kinking and other problems.

From the idler tower, the cable continued up to the wheels near the top of the headframe. These sheave wheels (pronounced "shiv") served as the primary link in the pulley system hauling cages and skips up and down the shaft. Then the cable was directed straight down to connect to the top of a series of cages, skips, and ore cars.

Each headframe had some kind of system for first-level sorting of the ore that came up the shaft. At the Anselmo, the black enclosed features on the south side comprise the tipple, a set of grates and chutes that shunted ore into train cars standing below. At the Orphan Girl mine at the Mining Museum, this operation took place in the elevated house-like structures called ore bins or ore houses. There, workers manhandled ore cars into position for dumping through coarse-spaced gratings called grizzlys.

At ground level in front of a mine shaft, beneath the towers of the headframe, metal turn sheets covered the ground. Men would guide the ore cars across the turn sheets to an array of tracks, sending the ore to its proper destination.

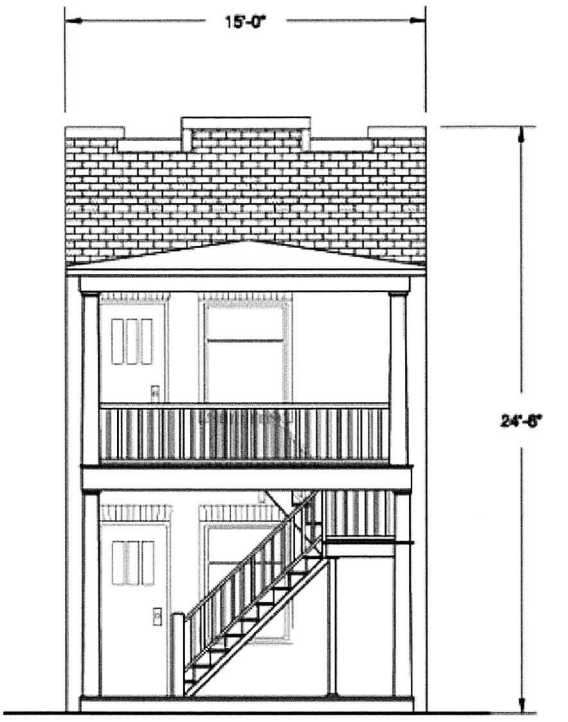




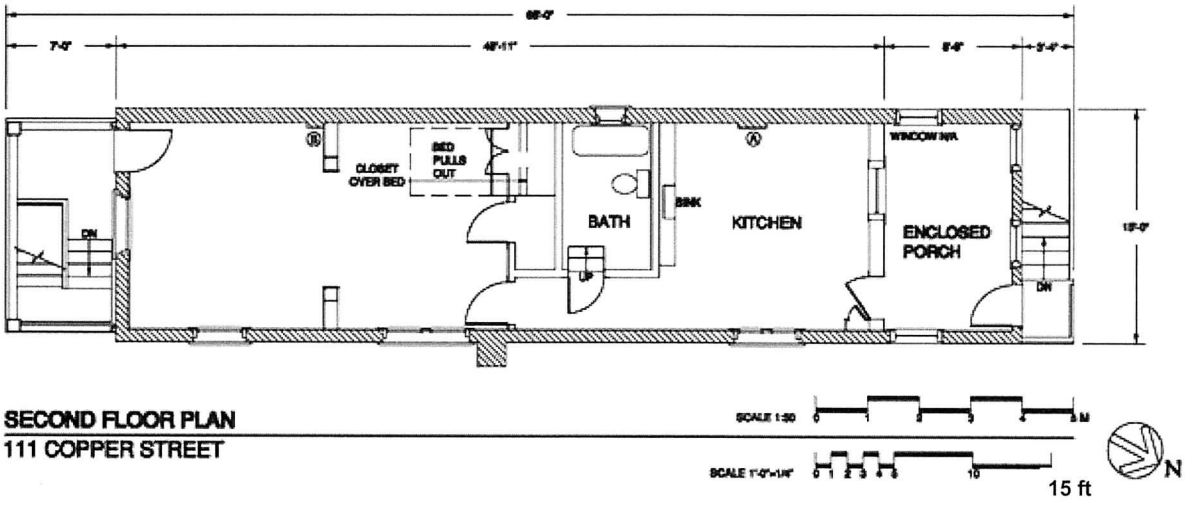
18. 111 West Copper Street
Architect: C.E. Pierce
Built: 1916

This two-level, two-resident shotgun house was typical of buildings erected on Butte's narrow lots. Mine dumps from the Original Mine, directly north, and its precipitation plant just to the northeast were juxtaposed with the narrow residential district on Copper Street. The northwest corner of Copper and Arizona was occupied by a rooming house, with the Swedish Methodist Episcopal Church on the second floor; directly across the street, on the northeast corner, was the Gold Hill United Lutheran Church. Sandwiched between the mine yard and the large government and commercial buildings of Quartz and Granite Street, this tiny neighborhood was a microcosm of Butte's intricately interconnected industrial, residential, and commercial zones.

Space-saving innovations in the shotgun duplex include a roll-away bed that slides out of the dining buffet from beneath the adjacent bathroom floor. The building cost $2,800 when it was constructed. The wood frame and brick veneer are typical of Butte shotgun houses of this era; the original floor plan is intact. The rear stairway has been restored to the original design.

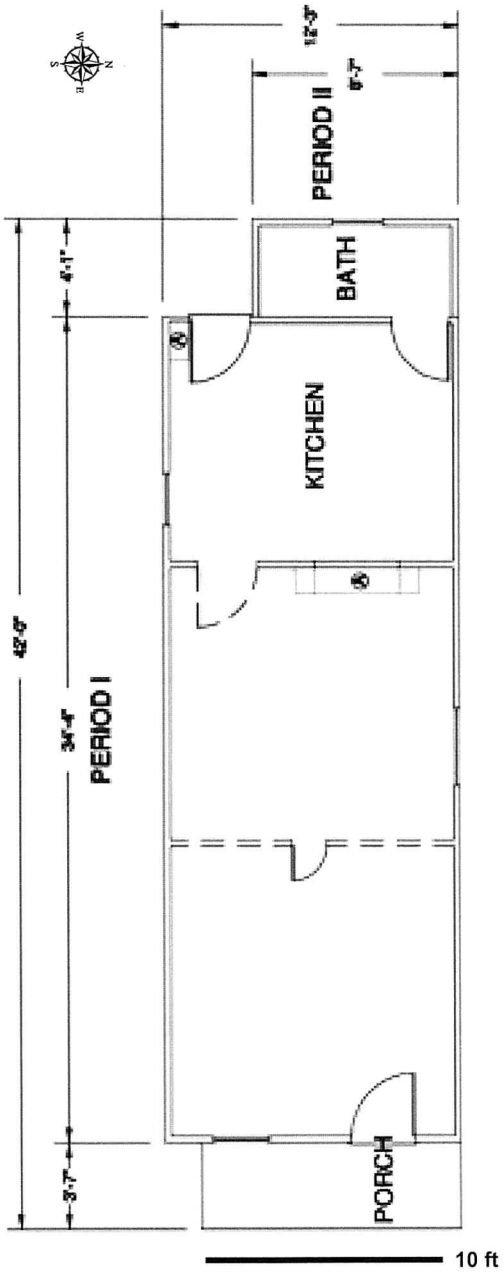


111 West Copper. Above, front elevation. Below, second-floor plan. Fieldwork by Stephanie Shaw and Elyse Poinsett. Drawings by Melissa Archer .



19. 409 North Alaska Street
Built: between August 1888 and May 1890

This tiny shotgun home is among the oldest survivors in the neighborhood. The bathroom at the rear was added at an unknown date.



Floor plan, 409 North Alaska Street. Fieldwork by Rebecca Sheppard, Victoria Walker. Drawing by Elizabeth Peebles.

20. 125 West Copper Street
Built: c. 1885

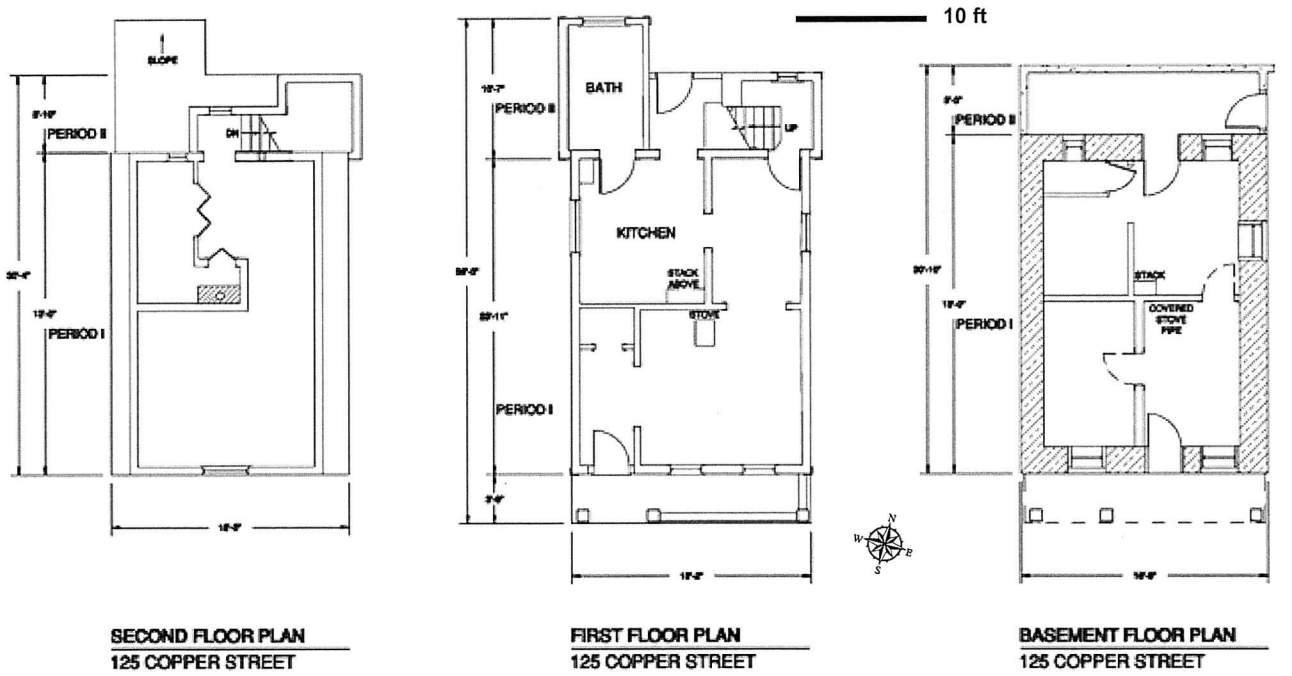
The original home here, built before 1888, was a one-story plastered structure that served as a dwelling and, according to Sanborn maps, at least for a time as a store. Additions were constructed on the rear (north) side by 1900. By 1916 the lot included a small cabin north of the main building, on the same lot. The second-floor bedroom represents a renovation of the original attic since 1997. Floor plans on next page.

21. The O'Rourke, 103 West Quartz Street
Built: 1892 & 1908 (no access)

The older building to the north was built as high-end apartments for John O'Rourke, owner of a shoe company at 36 North Main Street. Mary O'Rourke had the southern apartments built in 1908. Although the two buildings share a common boiler, they are not interconnected on the living levels. Both were vacated in the 1980s.

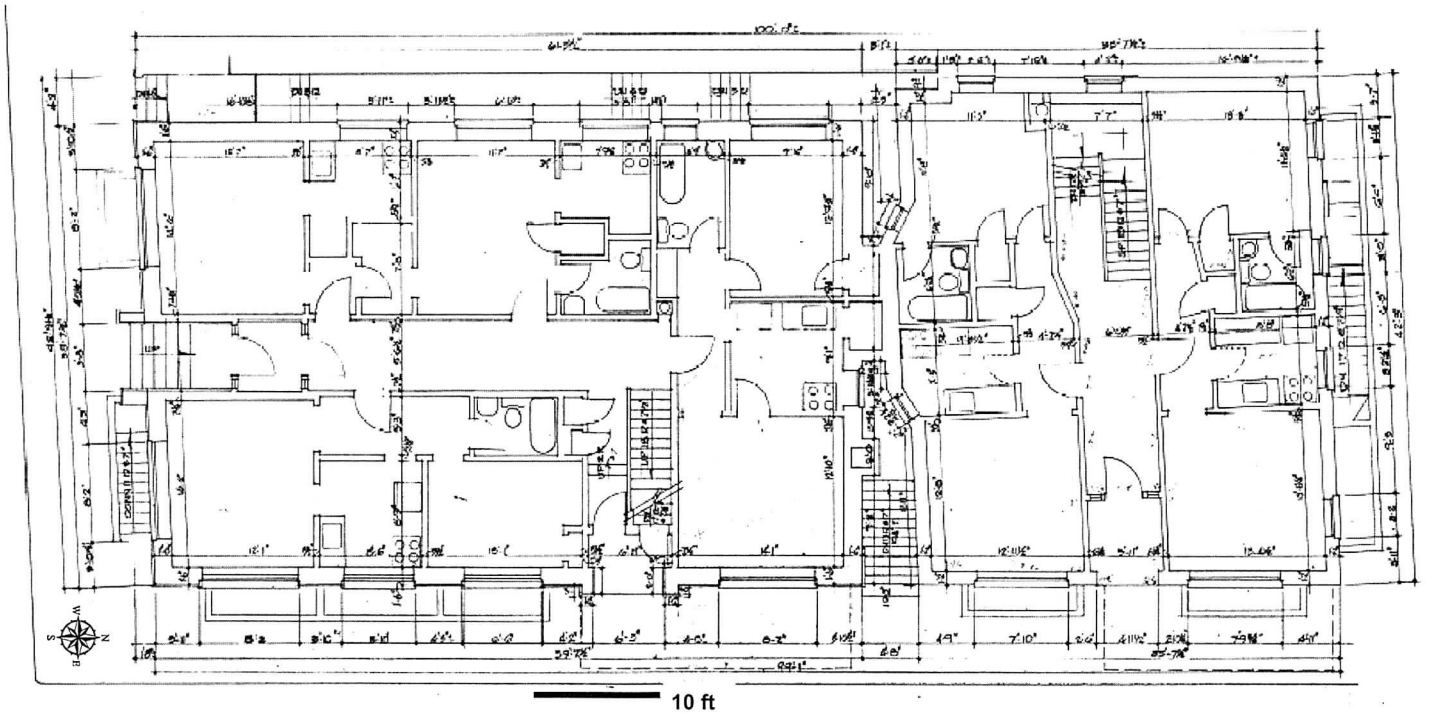
The light pink cornices, lintels, and window sills are of dolomite (a rock like limestone, but containing magnesium) and are unique in Butte. They may be Tyndall Stone from the Garson (Gillis) Quarry 37 km northeast of Winnipeg, Manitoba; if so, this is a very early US usage of that Canadian dimension stone.

The O'Rourke was threatened with demolition in 2000-2004, to make way for an expanded parking lot adjacent to the new jail (2003, due west of the O'Rourke). Butte Citizens for Preservation and Revitalization, a grass-roots non-profit organization, paid for a structural analysis that showed the building to be sound (contrary to gossip) and paved the way for a new owner to clear a very cloudy title. Basic mothballing and some repairs have resulted in a relatively stable building seeking an adaptive reuse.



Floor plans, 125 West Copper Street. Fieldwork by Rebecca Sheppard, Victoria Walker, and Stephanie Shaw. Drawings by Melissa Archer.

O'Rourke first floor plan below; east elevation on next page. Drawings by W.H. Hinick Associates. Courtesy Butte CPR.





22. Silver Bow Club
125 West Granite Street
Architects: Link & Haire
Built: 1906

Butte's millionaires' club cost $150,000 when built in 1906-07. It included interior Belgian tiles and elegant murals depicting European themes, most of which are still intact. The basement is partially above grade, and its walls are made from sandstone quarried at Columbus, Montana. The functional Otis elevator is an original installation, making it among the oldest functioning Otis elevators in the United States, but it cost about $100,000 to revitalize it and return it to working order about 2004.

Protected by a cast-iron canopy, the Granite Street entrance has hooks embedded in the granite steps to attach a red carpet. That entry was for members (all male); male guests entered on the Alaska Street side. The panels in the foyer of the Members' Entrance are beaten copper, nearly thin enough to be called copper leaf. The top floor contained lodgings for members, and it was also occupied by women who entered via the back stairs. Women could be invited to join gentlemen in the second floor saloon, but were banned from the entry level. Members of the Silver Bow Club included J.P. Morgan and George Hearst, as well as wealthy Butte businessmen and mine owners. Ironically, as mining declined in Butte, the building eventually came to be the headquarters of Butte Miner's Union Local #1 of the Western Federation of Miners, which owned the building from about 1950 until 2003. The present owner plans to develop a Celtic-Irish Cultural Center; at present, the lower floors contain offices.



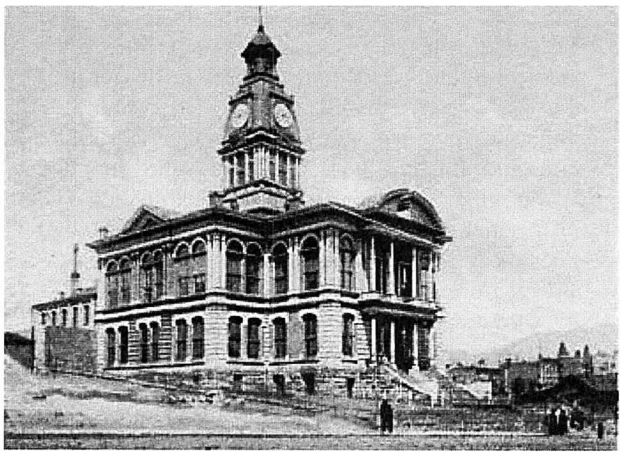
Silver Bow Club. Photo by Richard Gibson.

23. Silver Bow County Courthouse
155 West Granite Street
Architect: Link and Haire
Built: 1910-12

This is the second Silver Bow county courthouse to occupy the corner of Granite and Montana Streets. Built in the Beaux-Arts style and faced in part with 70-million-year-old sandstone from Columbus, Montana, the building cost about $385,000 – nearly as much as the state capitol in Helena.

Basic construction is steel frame. Interior columns contain ducts designed to allow fresh air flow into the building. Rotunda door frames are granite, painted to resemble wood—one of many details that addressed Butte's persistent fire hazard.

Pink railings surrounding the rotunda on upper floors are cast iron with scagliola plaster coatings—colored and polished plaster designed to resemble marble. Genuine marble is found in the main interior steps, rest rooms, and decorative elements throughout the building, as well as in the pendentives supporting the rotunda dome.



The original Silver Bow County courthouse (1884-1910) occupied the site of the present courthouse. From an old post card (Berryman collection).

LINK & HAIRE

Born in Hamilton County, Ohio, Charles Sydney Haire (1857-1925) moved to Montana where in 1906 he formed a partnership with John Gustavus Link of Billings. Link, born in Bavaria in 1870, studied architecture at the Royal Academy in Landau, and immigrated to the United States in 1887. By 1910 the Link & Haire Helena-based firm expanded with offices in Butte, Billings, Miles City, Lewistown and Missoula. Link also served as head of the Montana Board of Architectural Examiners. Following Haire's death, his son, Thomas Haire, continued in the firm. Link retired in 1926, and an employee, E.B. Benson, became a partner. The firm became Haire and Benson.

—Dena Sanford

Two years after its opening, the courthouse served as barracks and headquarters for the militia that came to control Butte under three months of martial law in the wake of the dynamiting of the Miners Union Hall on North Main Street in June 1914. In September 1914, a Gatling gun was set up on the courthouse steps and a 5,000-candlepower search light was placed on the courthouse roof.

24. Butte Water Company
124 West Granite Street
Architect: George Shanley
Built: 1906

Constructed in 1906, this three-story, Classical Greek Revival style building has been the headquarters of the Butte Water Company since 1923.

The building was originally the main office of the Montana Independent Telephone Company. The plaque on the front entrance explains the ornateness of the building as symbolic of the "new-found optimism of the era." Constructed of brick and stone, the front exte-



Butte Water Company. Photo by Stephen Henderson.

rior also has a two-story portico or porch supported by an order of slender Ionic columns with scrolled capitals. The top entablature bears the prominent name "Butte Water Co."; the telephone company name previously occupied that frieze. There is a wrought iron balustrade on the second floor between the columns and a wrought iron balcony centrally located on the third floor.

Certain materials on the interior of a structure this ornate were in standardized use as fire prevention. Marble, oak trim, terrazzo (a flooring material of stone chips set in concrete and given a smooth surface), and wrought iron balustrades remain throughout the building. A large meeting room on the third floor has two skylights, and a basement in the rear of the building is used for storage.

—Robin Manderfeld

BUTTE WATER CO.

When Annapolis-trained civil engineer Eugene Carroll arrived in Butte in 1891, he took over a water works plant serving a population of 23,000, consisting of several reservoirs and nineteen miles of distribution mains. Within a decade, Carroll transformed the Butte water system from one with a daily capacity of under 1 million gallons to one capable of providing 17 million gallons a day, through construction of two major reservoirs and a series of pumping stations, capable of transporting water up over the Continental Divide, 27 miles into Butte. The Big Hole to Butte pipeline represents the only system in the United States designed to bring water from the Atlantic drainage into the Pacific drainage. Just ten years after his arrival, the Anaconda Copper Mining Company purchased the Butte Water Company, assuring an ample supply of industrial water to the company and the metropolis that emerged alongside the copper giant.

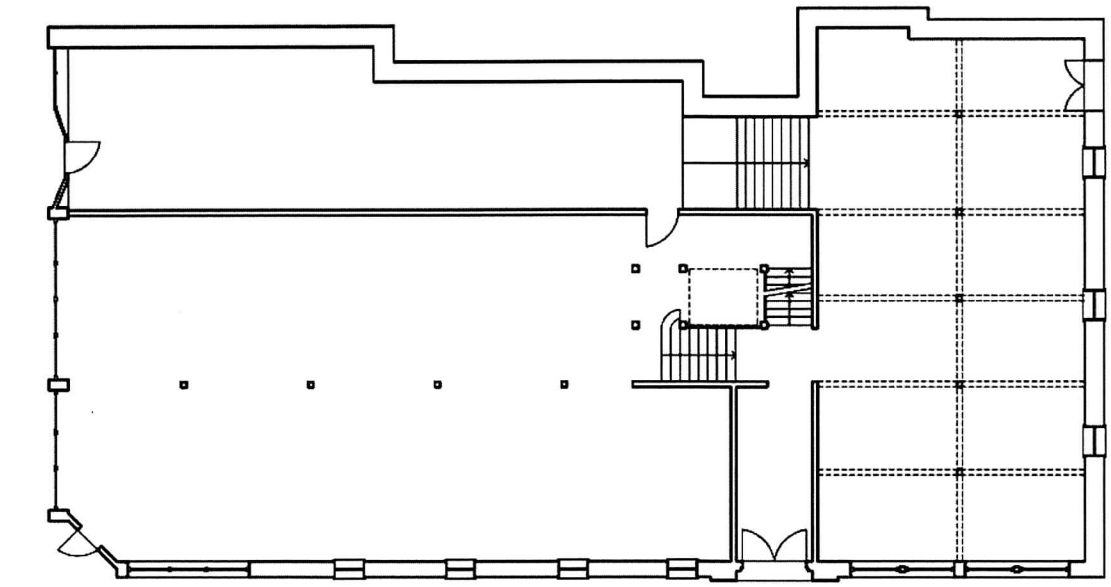
After securing surface waters distant from Butte and assuring the water's storage and transmission over many miles, Carroll put his employees to the task of building an infrastructure of distribution throughout the mining city and its suburbs. Carroll divided the city distribution system into five quadrants: the South Side system served a residential area; the Lower system conducted water from the Basin Creek Reservoir to the warehouse, mining, and residential neighborhoods along the bottom of the hill; the Middle system served the main business district and the neighborhoods to the west of uptown supplied by the West Side Reservoir; the High Service system served the mercantile and residential of Centerville north of the city center, as well as the extensive mining properties perched along the brow of the Butte hill; and finally, the Moulton system supplied Walkerville, at the top of the hill, with water. The distribution system consisted of nearly 800,000 lineal feet of Kalamein steel pipe, ranging in diameter from 2 to 20 inches, chosen for its flexibility where constant mining activity causes significant disturbance underground.

—Brian Shovers

Reference
Eugene Carroll, "The Water Works Plant of Butte, Montana" *Journal of the American Water Works Association,* 17, No. 3 (Mar. 1927), 371-374.

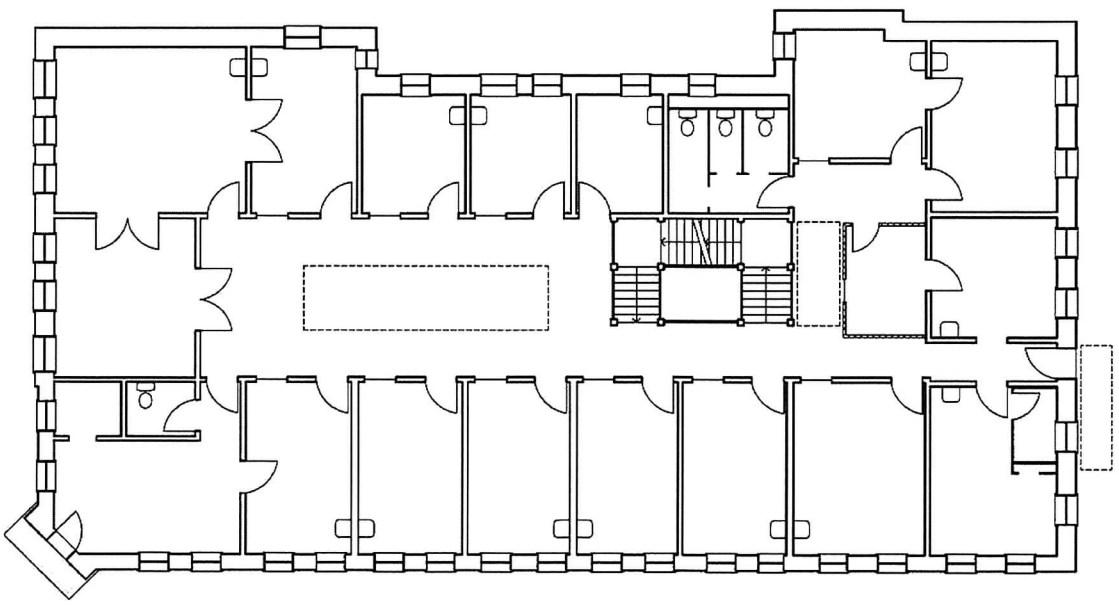
25. Hamilton Block
45 West Broadway Street
Architect: Henry M. Patterson
Built: 1892

Built for businessman Patrick J. Hamilton, this 52'x100' three-story brick structure served typical Butte functions: stores on the first floor and lodgings above. The building replaced a pair of two-story restaurants at the



HAMILTON

FIRST FLOOR PLAN



SECOND FLOOR PLAN

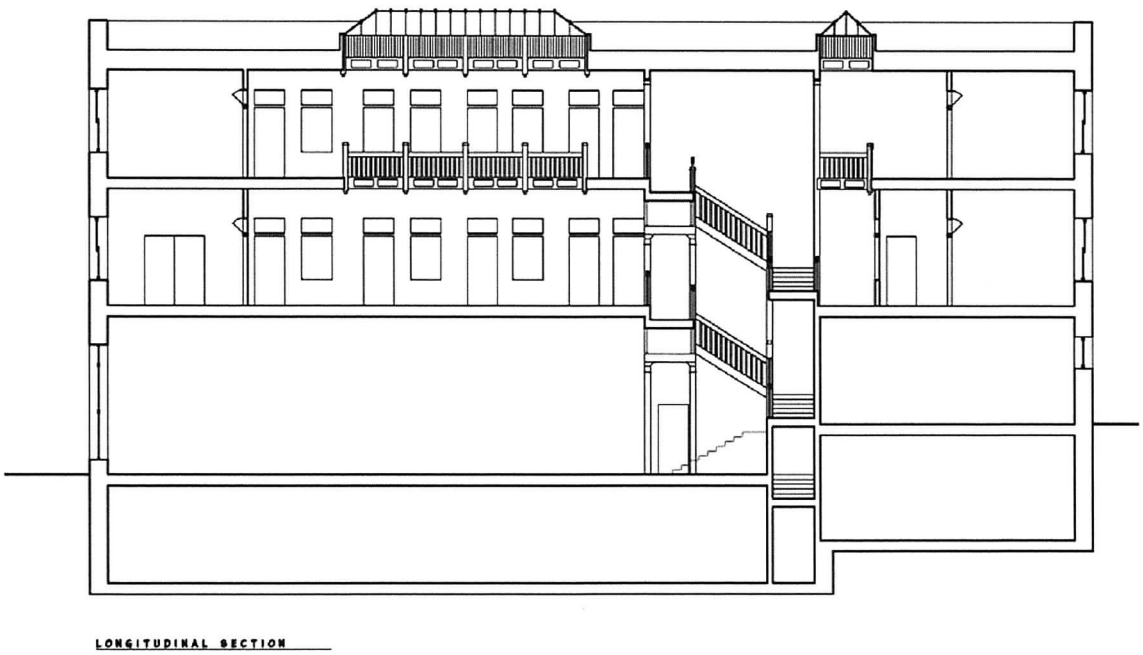
corner of Utah (previous name of Hamilton Street) and Broadway, and a Chinese store at 49 W. Broadway.

The iron store-front columns were cast by Montana Iron Works of Butte, located on the edge of Chinatown at 213-215 South Main when the Hamilton was erected. The tin cornice is one of the longest cornices surviving in Butte. Exterior stone sills, lintels, and keystones are likely Butte granite.

The first floor has been somewhat remodeled. Three businesses—from the corner to the west: a saloon, a store, and a restaurant—originally occupied the Broadway Street front, and the hotel entrance was at the middle of the building's east front on Hamilton Street (the entry archway survives). The first floor was a café prior to occupancy by the current antique store. Upper floors are largely intact, though deteriorating, and retain original woodwork and open skylight. Gold leaf formerly decorated picture molding on the third floor.



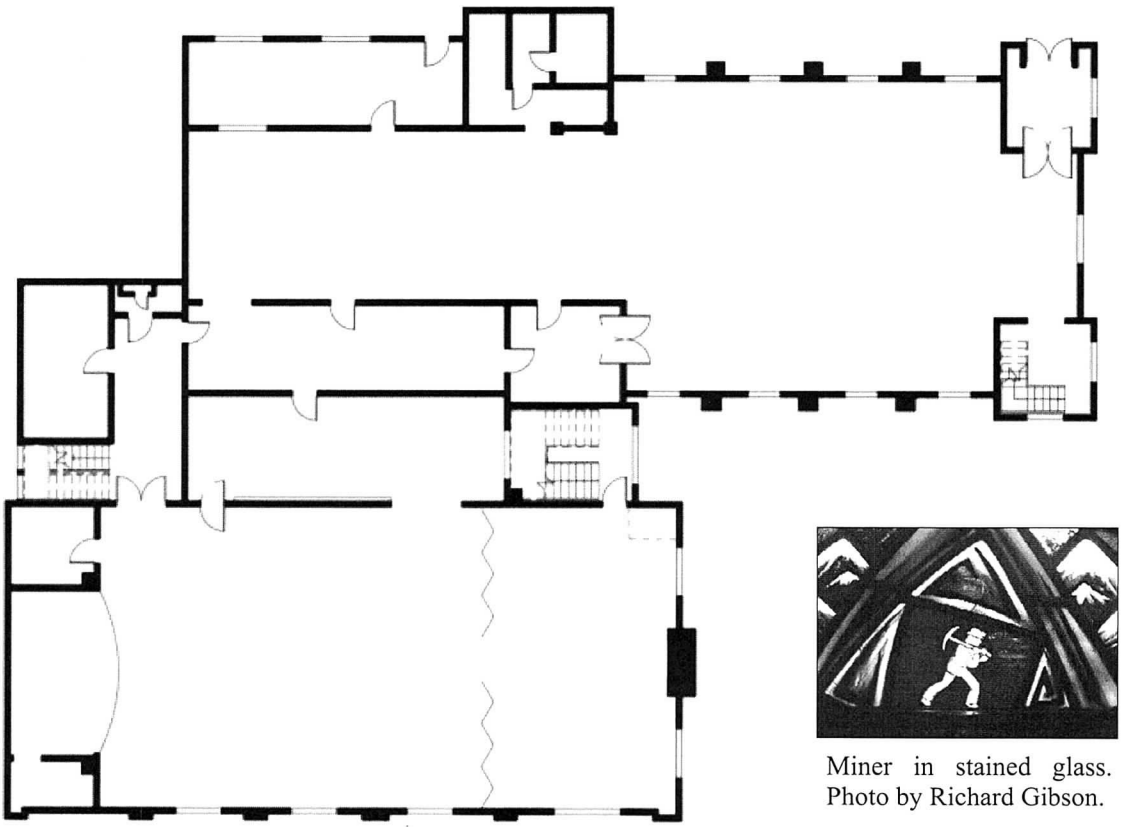
Hamilton Block. Photo by Richard Gibson.



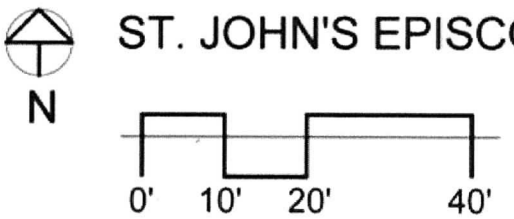
Hamilton Block fieldwork by Koshlan Mayer-Blackwell, Martina Parrish, Lesley M. Gilmore, Amanda Moore, Maire O'Neill. Drawing team: Todd Lampinen and Martina Parrish.

26. St. John's Episcopal Church
15 North Idaho Street
Built: 1881
Restored 1918-21, enlarged 1936

Faced in Butte granite, this church is the oldest standing church in Butte, predating St. Patrick's Roman Catholic Church by one year although the latter is the oldest religious community in town, initiated in 1866 as a mission. St. John's is closely connected to Copper King W.A. Clark, whose mansion is just a block north. The parish hall and basement gymnasium were added in 1917. For three years after a 1918 fire gutted the interior, services were held in the parish hall, and not until 1931 was the stained-glass window behind the altar restored. That window was executed by Pompeo Bertini, stained-glass artist for the Cathedral of Milan, Italy, and is dedicated to Clark's daughter Jessie, who died three weeks before her third birthday in 1878. The restoration of the window was paid for by Clark's son William A., Jr., and Jessie's twin sister, Catherine. Additional expansions have included enlarging the chancel and adding the chapel in 1936. Most of the stained glass in the side windows was manufactured by J & R Lamb Studios, of New York and New Jersey, and includes mining and patriotic motifs in addition to traditional religious imagery.



Miner in stained glass. Photo by Richard Gibson.



Fieldwork by Rolene Schliesman, C. Riley Augé, Denys Dutton, Barb Dutton, and Richard Gibson. Drawing by Jackie Little.

27. Mother Lode Theater, 315 W. Park St.
Architects: Link and Haire
Built: 1923

The Mother Lode Theater and the Finlen Hotel represent the only large buildings surviving in Butte from the last construction boom in the early 1920s. After that time, a declining population and ongoing economic woes discouraged major building projects. This Beaux-Arts structure has four colossal engaged columns with Ionic capitals, lions' heads, decorative iron work, and multi-colored terra cotta highlighting its monumental façade. Art Deco interior features include the proscenium arch, whose openings are covered with fabric. The floor above the main theater contains a large ballroom presently used for set design and storage. Upper floors included offices and wardrobe facilities.

The theater was built as the Temple Theater annex by the Masons, whose temple dating to 1901 is attached to the Mother Lode on the east. The economic and population decline led the Masons to lease their 1200-seat auditorium as a movie theater (the Fox) beginning in the 1930s, and in the late 1980s they donated the structure to Butte-Silver Bow City-County, which immediately leased it to the Butte Center for the Performing Arts, a non-profit group that has managed the site since then. The organization raised more than $3,000,000 for a restoration project completed in 1996, which included a new roof, electrical and plumbing refurbishments, a new stage floor, upholstery, furnace, and marquee. In 1997 a lower-level children's theater seating 106 was added.



Façade detail, Mother Lode Theater. Photo by R. Gibson.

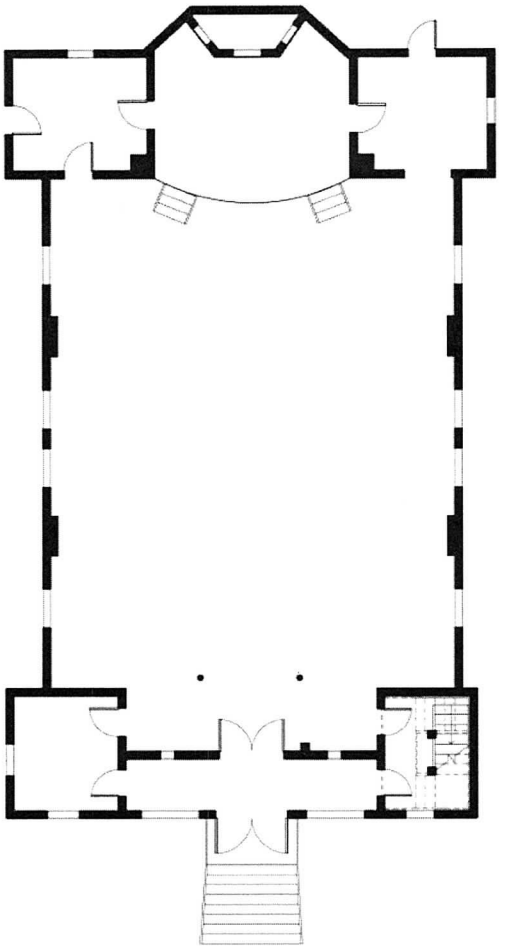
The Mother Lode Theater is home to the Community Concert Association, the Butte Symphony, Montana Repertory Theatre, Missoula Children's Theatre, Western States Opera Company, San Diego Ballet Company, and the Montana Chorale. It is the only survivor of at least seven grand theaters from Butte's heyday that hosted performers including Sarah Bernhardt, Enrico Caruso, Rudolph Valentino, Charlie Chaplin, and Mark Twain.

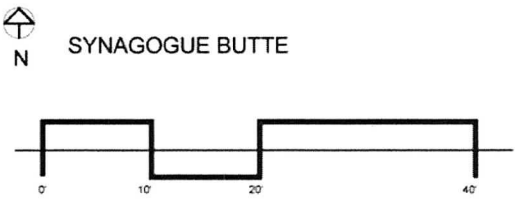
28. Congregation B'nai Israel Temple
327 West Galena Street
Built: 1903

The oldest synagogue in Montana still used as a house of worship is also one of few in the United States still in use to retain its original



B'nai Israel Temple. Photo by Richard Gibson.





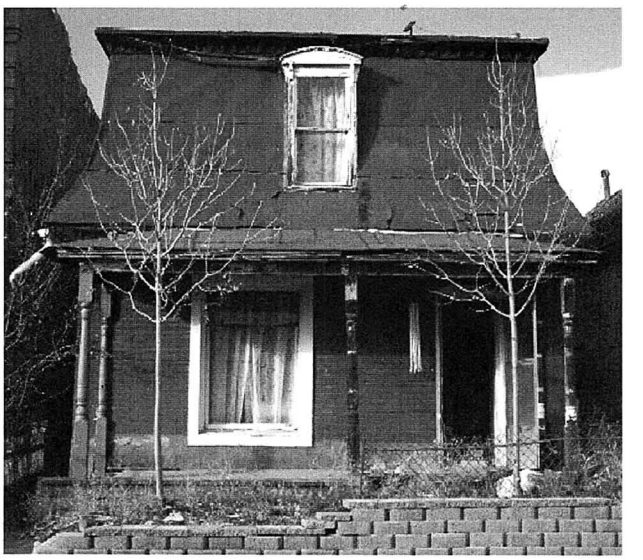
Fieldwork by Rolene Schliesman, C. Riley Augé, and Richard Gibson. Drawing by Jackie Little.

Moorish turret. The Jewish community was an important element of Butte business from 1875, and Butte's first mayor, German immigrant Henry Jacobs (home at the corner of Montana and Granite Streets) was Jewish. Two orthodox congregations were ultimately disbanded, and the reformed Congregation B'nai Israel eventually became the sole Jewish group in Butte. They met in the Carpenter's Union Hall (156 W. Granite) and the Mountain View Methodist Church (Montana at Quartz St.) until this synagogue was dedicated in early 1904.

Stained glass in the synagogue commemorates early business owners, the Symons and Oppenheimer families. They were the founders and long-time proprietors of Symons Dry Goods Company, eventually one of Butte's most prominent department stores which occupied the 1906 Phoenix Block at 66 W. Park St.

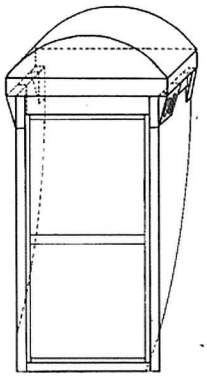
29. 315 South Washington Street
Built: 1883

Wood frame buildings with brick veneers began to be constructed in Butte during the late 1870s as a reaction to major urban fires. Brick and the use of formal architectural style are indications of Butte's transition from a temporary camp to an established city. This building is an early example of this transition. It was almost certainly constructed in 1883, the date of the newspapers used to span the gaps in the interior sheathing boards.



315 South Washington Street. Photo by Richard Gibson.

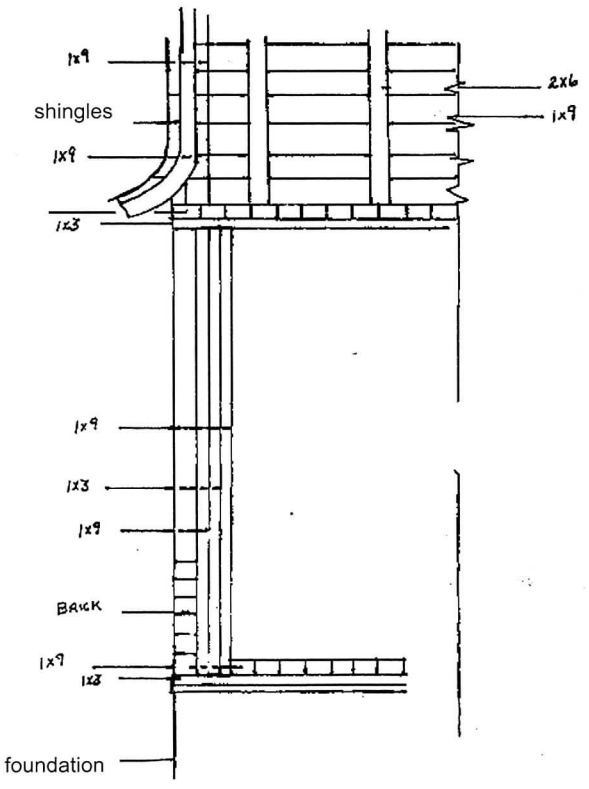
The mansard second-story space and arched projecting dormers identify this refined structure as French Second Empire style. The presence of separate rooms and connecting hallways on both levels suggest that despite the small size, this building was probably designed and initially used as a small hotel or boarding house. It had a relatively large one-story kitchen at the rear, and is located on a slight rise along what was once an important travelers' route into Butte along Washington and Idaho Streets. South of this building were several livery stables and associated businesses catering to travelers, and the adjacent property to the north has a barn on the alley. The building is near what was, in 1883, the southern edge of the most densely built-up part of Butte. Nearby, both Idaho Street Alley and Washington Street Alley had a predominance of alley-addressed housing that faced these narrow corridors, though demolition has greatly reduced their numbers in recent decades. An extant small two-room miner's cabin with independent doors faces the alley.



East elevation (below) and dormer detail (left) drawn by Greg Sattler. Partial section (right) drawn by Gene L. Whelchel.



The construction of the boarding house is similar to later construction techniques, but with some variations, the most significant of which is that the wall studs can best be described as 2x3 instead of later 2x4s. The foundation is mortared stone rubble that was built upon by wood plate, 2x3 studs and 1x plank sheathing on both sides. An air space was left between the sheathing and the bricks, with the bricks periodically anchored to the sheathing with mine spikes. All of the joists are rough cut and were wide spaced, with wide-plank open-joist bottom floors. The gaps in the horizontal sheathing boards were closed with pasted newspapers and finished with a wide muslin fabric tacked over the surface. The second floor was established with a vertical board system placed edge to edge and linked with a horizontal board. The mansard roof line was



established with curved rafters that projected over the first-floor soffits. The wood shingles were nailed to the rafters and then directly to the vertical boards of the second story. Full-height double-hung windows were capped with eyebrow-arched dormers on all facades. Presumably the west dormer was removed with the addition. The building is capped with a low-profile hip roof draining to all sides and was covered with sheet-metal roofing.

The first addition to the boarding house was a second story room that caps the kitchen. Still evident is the half-hip kitchen roof that was covered. The structure that covers the kitchen is much more typical of many of Butte's buildings, with its use of 2 x 4 and wood lath that received plaster. Milled and planed lumber instead of rough-sawn boards also mark this change in construction. Exterior details were also simplified in this capping room addition. About the turn of last century the Victorian-style front porch was added; the dentils of the fascia board extend behind and are hidden by the porch addition. The turned columns are common to many homes that were influenced by the Queen Anne decorative style popular at the time (1890s). Note that the columns of the porch do not match: the southeastern corner column is slightly different in design and proportion.

This bare-bones building is undergoing rehabilitation with plans to adapt it into a small home and office.

—Mark Reavis

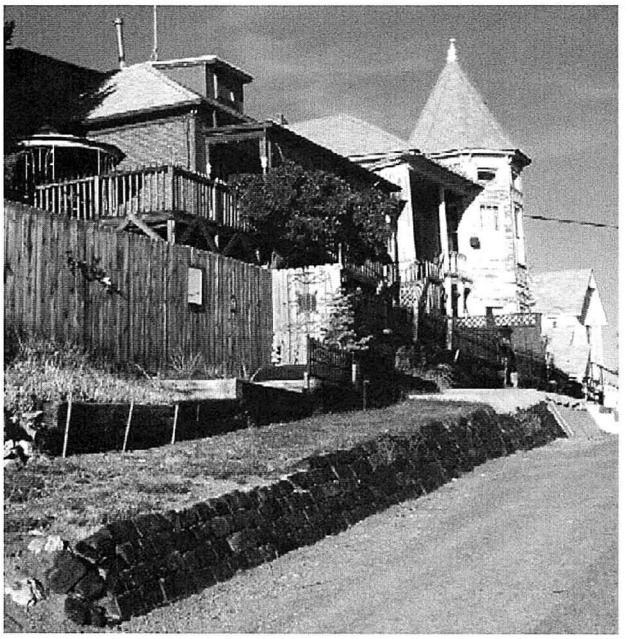
30. 612 West Galena Street
Built: c. 1912

Please see essay on following pages by Brian Shovers.

31. 300 block of West Copper Street
Slag-brick retaining wall

The process of hot casting of slag bricks was invented in Butte, by J.E. Gaylord at the Parrott Smelter before 1887. Smelter books of the day described his simple method of pouring hot, molten slag directly into cast-iron or sand-clay molds. The technique was considered an innovation over traditional shaping of partly cooled slag, a more labor-intensive approach.

Standard slag bricks from the Parrott Smelter were 12 x 6 x 6 inches, and weighed 55 pounds. One man could produce about 350 a day, and they were sold at 85¢ to $1.00 per hundred—less than a penny apiece, but enough to pay the slag worker's wage of about $2.50 per day and still turn a profit. Initial uses included linings for kilns and retorts and for road beds in mine yards, but smaller bricks were also sold to make residential retaining walls like the one in the 300 block of West Copper Street.



Slag brick retaining wall, 300 block of Copper Street (between Idaho and Washington Streets). Photo by Richard Gibson.

MULTI-FAMILY BUILDING FORMS IN BUTTE, MONTANA, 1890–1920

Brian Shovers

Between 1890 and 1916, mining for copper precipitated an unprecedented explosion in Butte's population, and an accompanying shortage of housing. Within a brief period of thirty years, the young upstart gold mining camp blossomed into a thriving industrial metropolis, the largest population center between Minneapolis and Spokane. From 1865 to 1895 the wooden false fronts of the Butte commercial district gave way to a more substantial, permanent architecture of stone and brick. The sense of permanence reflected in the masonry banks, the retail stores, and theaters that lined Park and Main streets was echoed in the new multi-family residences along the perimeter of the central business district. The two-story, brick-veneered duplexes, fourplexes, and sixplexes, clustered around the main arterials crisscrossing the Butte hill, represented a solution to a serious housing shortage at the turn-of-the-century, and expressed a building form translated to Butte from the East.[1]

The rapid expansion of copper mining and ore processing in Butte transformed Butte from a camp to a city in short order. In 1898, 2,500 men worked underground in Butte's 260 mines; by 1910 that number had grown to almost 7,000 men in 344 mines. At the same time over 5,100 men and 2,600 women supported the industrial workforce in trade, domestic and personal service, professional jobs, public service, and a large clerical contingent. Coincident with the exponential growth of the mining in Butte came a tremendous demand for goods and services, and those employed in this facet of the economy

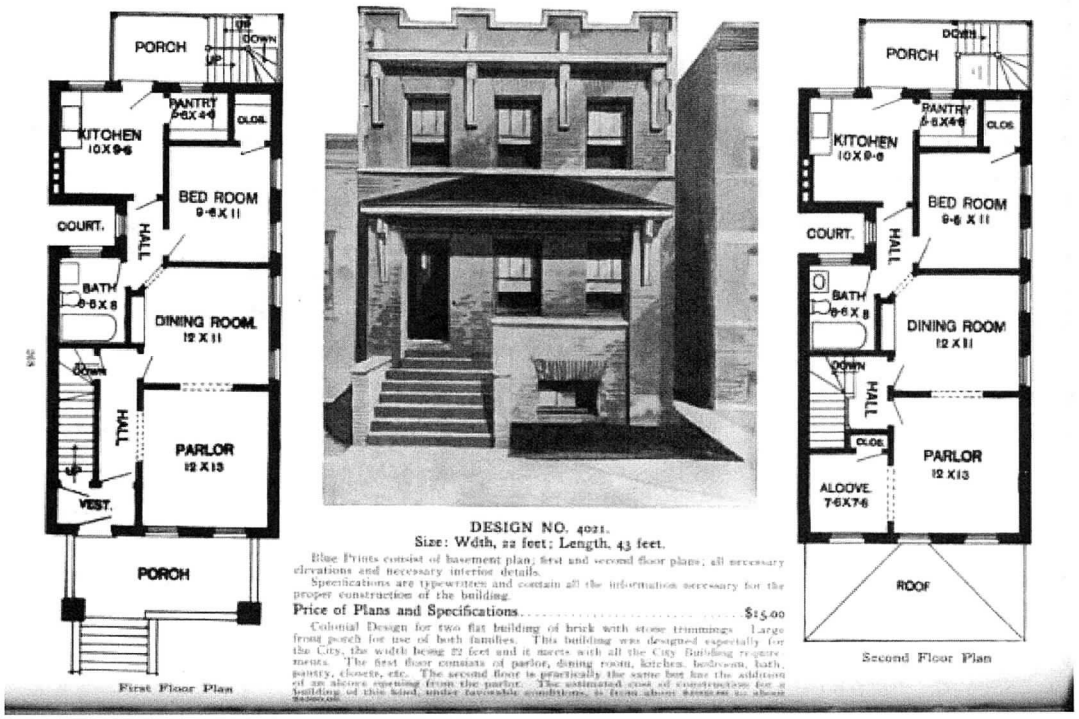


Fig. 1. A brick flat design found in Wm. Radford's Portfolio of Plans, published in Chicago in 1909 and repeated in Butte, slightly altered, in the 1910s.

also needed housing. This growing middle class group of small businessmen, retail clerks, secretaries, railroad workers, and skilled craftsmen sought housing within walking distance of work, and dwellings which offered the modern amenities of electric lights, running water and central heat.[2] Real estate agents, building contractors, and other perceptive entrepreneurs responded to this demand by constructing functional yet tasteful duplexes and fourplexes close to the service centers of the local economy (an area bounded on the west by Excelsior on the east by Main St. on the south by Aluminum St. and on the north by Copper St.).

Ironically, the industrialization that bred deplorable living conditions within cities also contributed to the accouterments of suburban life: modern plumbing features such as porcelain sinks and zinc-lined bathtubs were now available, as were manufactured woodwork detailing for porches and interiors, and higher quality, less expensive bricks to embellish building exteriors.[3] The building forms adapted to these new materials emerged not newly minted from the drawing boards of professional architects, but instead were erected from stock plans in building manuals and from contractors' careful analyses of completed buildings. Builders in the East and Midwest used several forms that ultimately reappeared, somewhat altered, some 2,000 miles away in Butte during the first two decades of the twentieth century.[4] (See Figure 1, Radford).

Between 1890 and 1920, over 396 one- and two-story multi-family dwellings sprang up in Butte. These dwellings can be divided into five basic forms or types, each with innumerable variations upon a basic theme. The next most important form emerged south and west of the central business district between 1906 and 1916, which we will call the porch-fronted walkup flat. The wooden, two-story porch represented the primary design feature of these brick-veneered fourplexes. The bilateral symmetry of the door and window configuration and a central stairway splitting the porch in half and the use of a pediment over the porch entry pointed back to Neoclassical styles. The porches, framed by a hipped roof, supported by plain wooden posts and balustrade, created a transition space between the interior and the street, an important element of the Gothic Revival cottage. The floorplan constituted a series of arched openings separating the front parlor in the front from the kitchen in back.[5]

The porch-fronted walkup blended both the financial considerations of the owner/builder with amenities desired by a growing commercial middle class of men and women seeking housing within walking distance of a burgeoning business district. In a 1984 interview, Mary Weldon, the owner and resident of a porch-fronted walkup at 647 South Idaho, reflected on the historical importance of providing the modern conveniences of an indoor bathroom, electric lights, a gas cooking range, and hardwood floors to salaried workers with little economic risk to the property owner. A front porch provided an exterior space for socializing during the brief Butte summer, while an enclosed back porch provided additional storage. During the first decade of the twentieth century these multi-family dwellings remained within walking distance of the neighborhood grocery, churches, schools, theaters, and the streetcar line. The monthly rent of $20 remained within the means of a clerk earning $70/month, and Hennessey's Department Store actually offered furniture and floor and window coverings for small monthly payments.[6]

A Profile of Owners, Builders, and Tenants

An examination of the Butte city directories and census records from 1900-1920 provides insight into who built, owned, and lived in the growing numbers of duplexes and fourplexes built during Butte's transformation

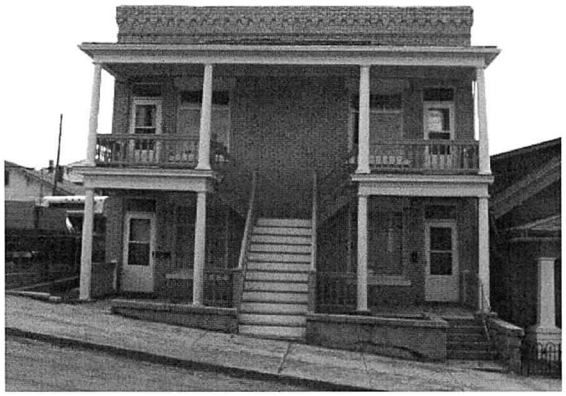


Fig. 2. A porch-fronted walkup built in Butte in the 1910s at 608-612 West Galena Street by contractors to house growing numbers of middle class residents during the boom in copper production. Photo by Brian Shovers.

into a regional metropolis in a three block area of West Galena Street (600-900) within walking distance of the business district. Between 1906 and 1913 nine two-story brick fourplexes appeared on this one residential street. (Fig. 2) The owners ranged from the inspector at the Butte Water Co., Met Alexander (611-615 West Galena) to Thomas C. Bowden, a mine engineer at the Mountain View Mine (638-646 West Galena) to Charles Plumley, a contractor (736-746 West Galena). Only one of these men, Plumley, represented both the owner and builder and a resident in the dwelling for a short period. The list of residents over time included car salesmen, miners, a reporter, a clerk of the district court, a bank cashier, and Butte's only Socialist mayor, Lewis Duncan (704 W. Galena). The huge demand for middle-class housing during this period of booming copper production made construction of these multi-family residences a sound investment. Classified ads in the *Anaconda Standard* in 1910 revealed that a three-room flat in Butte brought the owner $15/month, while a six-room flat rented for $30/month. As late as 1954 a four-room flat still rented for $25/month. The amenities offered by these modern apartments represented a step above the much smaller worker's cottages or shotgun houses found closer to the mines in Centerville, Walkerville, and Dublin Gulch selling for approximately $750. Renting constituted a less risky financial proposition in a mining town jolted by periodic strikes, fluctuating world prices for copper, and a variety of other fiscal crises.[7]

Carpenters and building contractors, not architects, designed and constructed the Butte brick duplexes and fourplexes. Thomas J. Angell, Jr. began working in Butte as a carpenter in 1899, and during the next twenty years built a number of brick walkup fourplexes south of Park Street on West Silver St. (642-644 West Silver) while residing in the neighborhood. Another carpenter/contractor, Charles Elderkin, who lived at 621 South Idaho, constructed a number of porch-fronted flats in an effort to "provide alternative living arrangements to houses and apartments."[8]

The question remains, where do these familiar Butte building forms come from? Some are reminiscent of brick duplexes and fourplexes found in published plan books from the first several decades of the twentieth century. William A. Radford, a Chicago architect and co-owner of the Radford Millworks in Oshkosh, Wisconsin, published a collec-

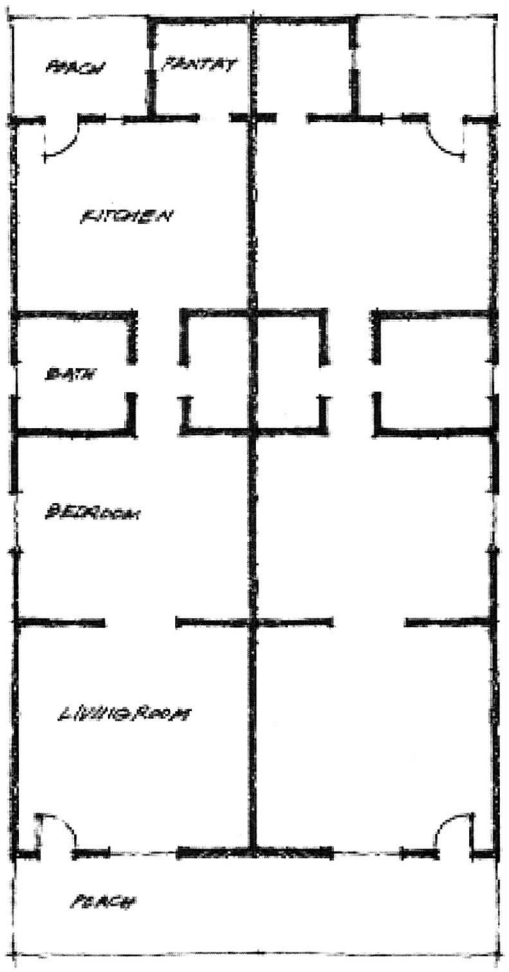


Fig. 4. A fourplex built by Thomas Bowden, a mine engineer at the Mountain View Mine, at 638-646 West Galena Street. Photo by Brian Shovers.

tion of over 300 designs for houses, bungalows, apartments, and commercial buildings in *Radford's Portfolio of Plans*, in 1909. Radford offered a set of working blueprints for $10, guiding the builder through every detail of these wooden and brick designs. The exterior design elements and interior floorplans of these two Radford brick flats can be seen in several of the Butte duplexes. Both the Butte flats and the Radford plans feature a parlor, two bedrooms, a dining room, and a kitchen, measuring approximately 1,000 square feet at a constructed cost of between $4,000-$5,000. (See Figure 1, Radford plan). While the exact origin of the fourplex design in Butte remains a mystery, there are distinctive elements that remain quintessentially Butte, such as the split wooden stairway and porches.[9]

Notes

1. Dale Martin and Brian Shovers, "Butte, Montana: An Architectural and Historical Inventory of the National Landmark District," Butte Historical Society, 1986, p. 53-56.
2. *Sixth Annual Report of Montana Bureau of Agriculture, Labor & Industry (Helena, 1898), 186; Thirteenth Census of the United States, Vol. IV, Population, 1910* (Washington, D.C., 1914), 216-218.
3. Gwendolyn Wright, *Building the Dream: A Social History of Housing in America* (New York, 1981), p. 104.
4. Ibid, p. 76;
5. Martin and Shovers, p. 130-132.
6. Brian Shovers, "Housing on the Rocky Mountain Urban Frontier," (unpublished manuscript, 1984), p. 9; Patty Dean, "Furnishing Butte: Consumerism and Homemaking in the Copper Capital, 1909-1912, *Pacific Northwest Quarterly* (Vol. 97, No. 2), 79-80. There was a monthly payment of $15/mo. on furniture bought on *installment payment plan*, affordable to middle class salaried workers.
7. Montana Historical and Architectural Inventory forms, Butte Landmark District Architectural Inventory, 1984; *The Anaconda Standard*, May 2, 1915, p. 14.
8. Montana Historical and Architectural Inventory forms, 1984.
9. William Radford, *Radford's Portfolio of Plans* (Chicago, IL., 1909), 268-269; Radford, *Radford's Stores and Flat Buildings* (Chicago, Il., 1909), 3.



PLAN DIAGRAM
612 WEST GALENA



Plan diagram, 612 West Galena. Fieldwork by Brian Shovers, sketch by Maire O'Neill.



First Baptist Church (1907-08), 201 West Broadway Street. Presbyterian Church in left background. Photo by Richard Gibson.

CHURCHES

Butte's "Church Zone", the three-block-wide area between Washington and Alaska Streets, and extending from Quartz Street on the north to Porphyry Street on the south, contained about 18 of Butte's 46 churches at the peak of population in 1917. Nine are still standing. Butte's diversity is especially evident in the block bounded by Idaho, Galena, Washington, and Mercury Streets, where the Jewish Synagogue, St. Patrick's Catholic Church, and St. Paul's Methodist Episcopal Church still stand. The northwest corner of Idaho and Mercury is the site of the Baptist Church that served Butte's African-American Community (together with the African Methodist Episcopal Church, still standing on Platinum near Idaho Street). St. Paul's Methodist has not been used as a church since about 1917; it is the site of the raid led by Captain Omar Bradley on the radical Industrial Workers of the World offices in 1918. At that time the building also housed the printing presses of the *Butte Daily Bulletin*, nearly the only anti-Company newspaper in the state. The corner of Porphyry and Idaho Streets is the site of the original Serbian Orthodox Church, erected there in 1904-05, the second Serbian Orthodox Church built in North America. Subsiding mine tunnels and damage from a 1959 earthquake led to the construction of a new Holy Trinity Serbian Orthodox Church on Continental Drive, about three miles southeast of Uptown Butte.

—Richard Gibson

H.M. PATTERSON

Henry M. Patterson was born in Ashland, Ohio, in 1856. He worked in Butte between 1880 and 1905, where he designed many of Butte's grand commercial and residential buildings, including the Curtis Music Hall (Gamer's Cafe), First Presbyterian Church on Broadway (Covellite Theater), the Stephens Hotel at Park and Montana, the Neuberg home at 411 W. Broadway, and the house at 635 W. Granite. More than 30 of Patterson's buildings still stand in uptown Butte.

In Los Angeles (1905-1928) Patterson specialized in churches, though he designed some other buildings as well, including theaters (e.g. Washington Theater, Pasadena). Patterson died October 20, 1928.

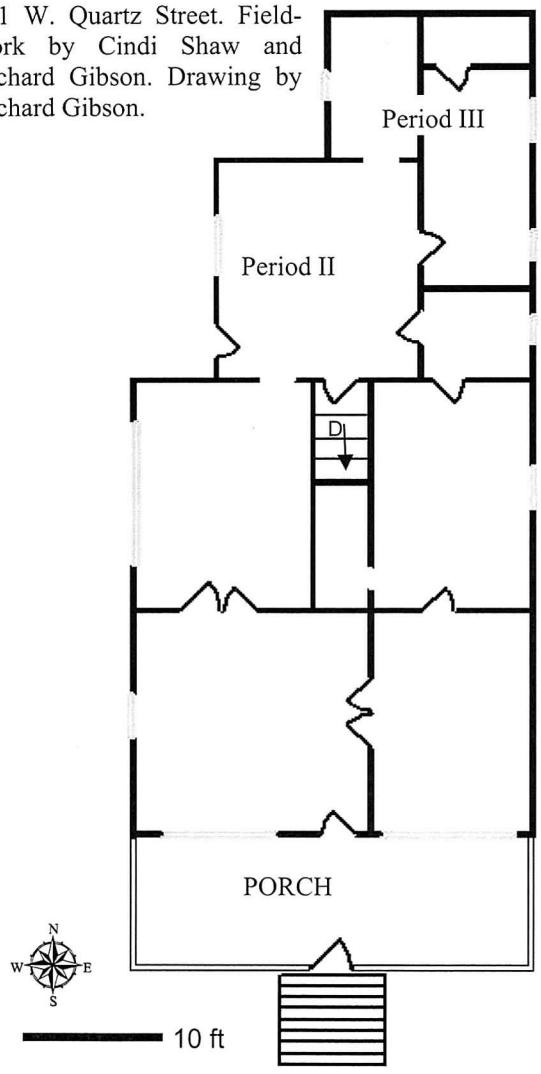
—Richard Gibson



Curtis Music Hall (Gamer's Café), 15 West Park Street. Built 1892 and designed by Henry Patterson. Photo by Richard Gibson.

32. 211 West Quartz Street
Four-Square Miner's Cottage
Built: 1885

The kitchen addition on the north side was early, before 1888; the pantry and northeast corner room were added between 1900 and 1916. Renovation in the 1930s enclosed the original front porch and added the interior French doors. This block was Irish for at least 50 years; the shamrock and "IRA" (for Irish Republican Army) painted in the basement date to 1932. Diverse basement walls include unmortared rubble, brick, granite blocks, and granite bedrock.



211 W. Quartz Street. Fieldwork by Cindi Shaw and Richard Gibson. Drawing by Richard Gibson.

33. 209-213 North Idaho Street
Row Houses (no interior access)
Architect: Charles M. Prentice
Built: c. 1898

These three attached Italianate homes step up Idaho Street, reflecting a common accommodation to Butte's topography. The middle unit upstairs (211½) was home to Butte Police Chief of Detectives Ed Morrissey, implicated in the murder of Frank Little in 1917. Morrissey probably murdered his wife here in 1919, and died in his bed here in 1922 of injuries suffered in a fight. The brick buildings were erected before 1900, probably about 1898.



209-213 North Idaho Street. Photo by Richard Gibson.

34. 212 North Crystal Street
Architect: unknown
Built: c. 1892-93

This stately Queen Anne mansion was built for William J. Alexander, a successful Butte grocer who came to Butte in 1880. The home rests on a granite stone foundation and is wood frame with brick veneer. The only alterations are a relocated third-floor stairway, and an addition on the rear (east) side dating to 1900-1916.

With its hilltop location and dramatic view west down Quartz Street, this prestigious home anchors the Hub Addition, developed

EVEL KNIEVEL

How did a juvenile delinquent from Butte, Montana, become an international celebrity? The answer is simple: by leaping over buses, foundations, and canyons on his motorcycle while breaking nearly every bone in his body. Although, Robert Craig "Evel" Knievel, passed away after a three-year bout with a terminal lung disease in Clearwater, Florida on November 30, 2007, his reputation as America's legendary daredevil lives on.

Born in Butte on October 17, 1938, Knievel was raised by his paternal grandparents, Ignatius and Emma Knievel, who operated a tire service in Butte. As a youngster, Knievel built a ramp out of his grandfather's garage doors, lit them on fire, and charged neighbor kids 2¢ to watch him crash his bicycle off the burning ramp. After dropping out of high school at age 16, Knievel tried his hand at a variety of occupations including stealing hubcaps, underground mining, playing semi-pro hockey, selling insurance, racing up and down Idaho Street, and cracking safes. During these years Knievel became a familiar guest of the Butte City Jail. In fact he derived his nickname one evening in 1956 in the city jail when, arrested for reckless driving, he ended up sharing a cell with another Butte legend, William "Awful" Knofel; the jailer provided the handle "Evel."

Knievel parlayed his interest in fast machines from a partnership in a Washington Honda dealership into a series of dangerous stunts beginning with a jump over a pit of venomous snakes in Moses Lake, Washington in 1965. Two years later Knievel made headlines by flying 141 feet over the fountain at Caesar's Palace in Las Vegas, but the landing jarred Knievel from the Triumph motorcycle and pitched him into the concrete. For the next 29 days Knievel remained in a coma with multiple rib fractures, a broken hip, and crushed pelvis. When Knievel awoke he found himself a national celebrity, proclaiming himself "The Last Gladiator in the New Rome."

The Caesar Palace crash, captured on film, catapulted Knievel from a local stuntman into an international daredevil immortalized in toys, film, and pop songs. The height of his career peaked on September 8, 1974, when he attempted crossing the Snake River canyon aboard a steam-propelled jet cycle. A malfunctioning parachute landed Knievel and his X-2 Sky Cycle in the Snake River; while he wasn't seriously injured, the crash forever tarnished his fortunes.

After years of hard living and numerous stunt injuries, Knievel received a liver transplant and garnered the headlines again in 2002 by promoting a weekend festival of motorcycle stunts in Butte known as Evel Knievel Days. His son Robbie continues the family tradition, jumping buses for adoring crowds across America.

—Brian Shovers

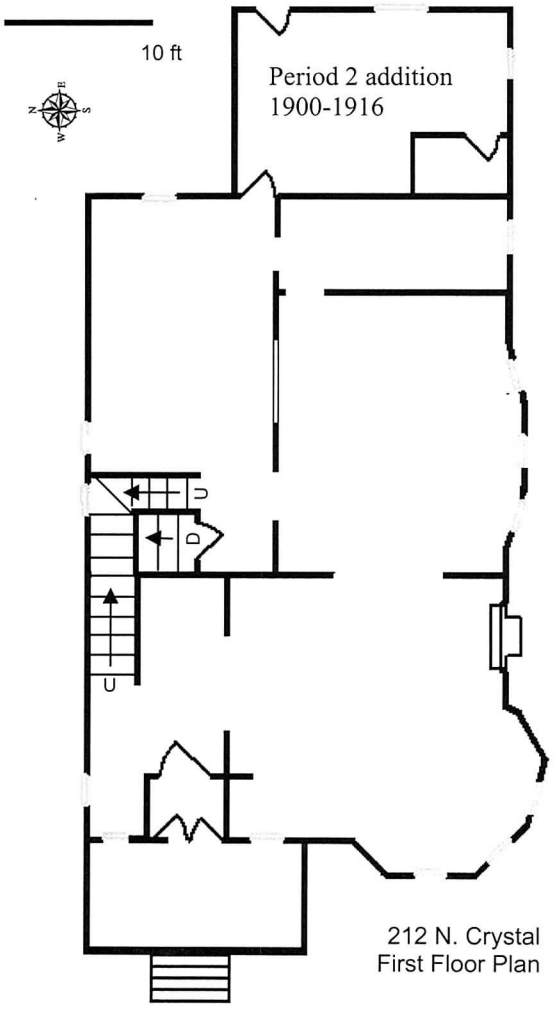


Photo by Bill Wolf, c. 1979, from Wikipedia Commons, under Creative Commons Attribution and Share Alike license.

during the building boom of the 1890s. Set among less ornate middle-class homes, cottages, boarding houses, and a stone's throw from the much later Mueller Apartments on Granite Street (1917), this building epitomizes the juxtaposition of class evident throughout Butte.

Alexander's grocery was at 64 W. Park Street, but the neighborhood of this home was served by the Crystal Street Grocery one block south at Granite Street (northwest corner; closed circa 1973; a vacant lot today) and Finley's Grocery at Quartz and Jackson Street (southeast corner).

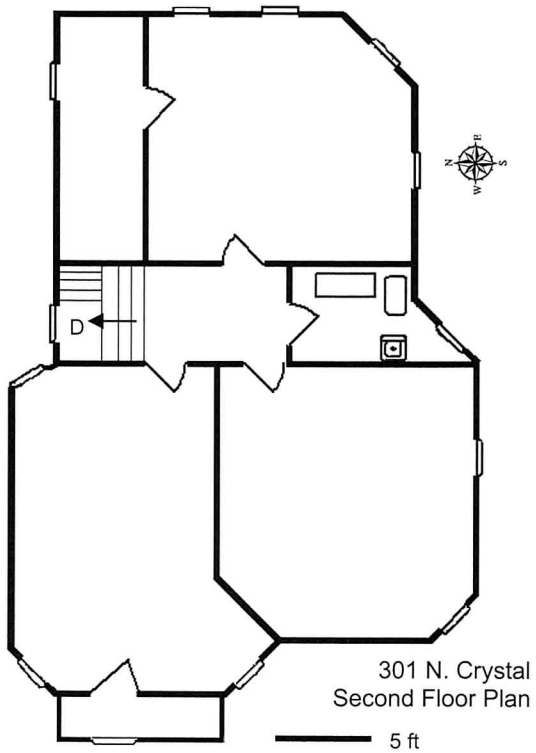
—Nicole von Gaza



Fieldwork by Nicole von Gaza and Richard Gibson. Drawing by Richard Gibson.

35. 301 N. Crystal
Architect: Charles M. Prentice
Built: 1898

This eclectic modified Italianate home was the residence of the architect until about 1907. Prentice was noted for interesting window alignments and "inventive corbelling"; the short hips on the roof are unusual on Butte's Italianate homes, which are usually simple flats with straight or stepped brick or masonry cornices. Two families, totaling five adults and one teen-ager, lived here in 1900. Always a middle-class residence, in 1928 two couples lived here including an assistant secretary at the U.S. Building and Loan Association and his wife, and a shift boss at the Black Rock Mine and his wife. The original polygonal wood frame structure is largely unchanged, although original wood siding has been covered by shingles. Original interior features in-



Fieldwork and drawing by Richard Gibson.

CHARLES PRENTICE

Charles M. Prentice was born in Connecticut in 1848, and traveled extensively before he came to Butte in the early 1890s. His wife was from Ohio, and their two children were born in Wisconsin (1877) and Texas (1885). In Butte, he worked as a lumber mill foreman in the 1890s but by about 1898 was listed in the city directory as an architect, a position he held at least until 1908. Most of Prentice's surviving work is within the small area defined by Idaho, Granite, Clark, and Quartz Streets, including 209-213 N. Idaho, 301 N. Crystal, the east addition at 301 E. Granite, and 206-208 N. Clark.

—Richard Gibson

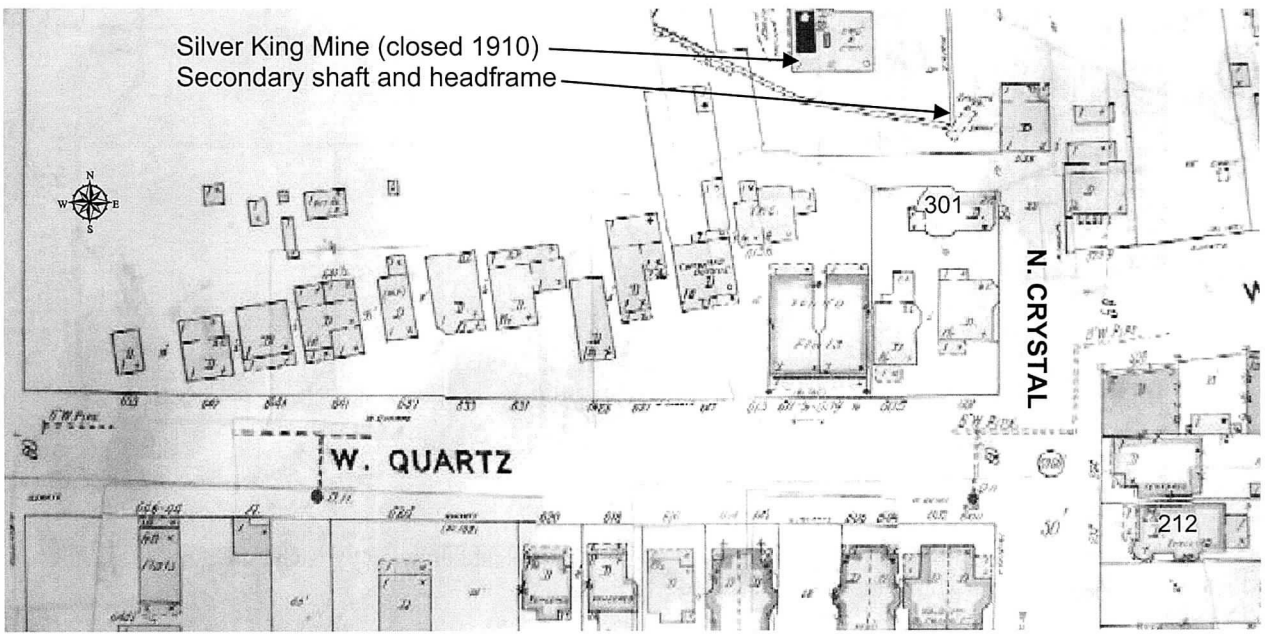
clude stained glass (upstairs transoms, basement outside door) and painted wood grain.

The house is set into mine tailings derived from a shaft that was located to the north, where Cheyenne Park is today. Tailings can be seen in the basement in the wall beneath the stairs. The garage is probably not original, but is a relatively early addition likely dating to the 1920s.

36. 600 block of West Quartz Street
Layout dates to: pre-1891

The angled setbacks for the buildings at 631-647 reflect original construction fronting along a mining claim boundary. Many buildings in Butte have subtle angularity with respect to street fronts (the Leonard Hotel, 205 West Granite, is a good example – look up to see the asymmetry), but this collection of homes is probably the best. The jog in Quartz Street where it crosses Crystal accommodated this original mining claim layout when the northern part of the Hub Addition began to grow about 1890, and especially after the first public school was built—Lincoln Elementary in 1892 at Clark and Broadway Streets. Several homes also received unexpected and unusual front yards when Quartz Street's final position was defined.

Below: 1914 Sanborn fire insurance map of the 600 block of West Quartz Street, showing angled layout following mining claim boundary. 212 and 301 North Crystal, described in this section, are indicated.



STREET NAMES

Butte's mineral heritage is evident in its street names. Some are straightforward: Iron, Aluminum, Diamond, Gold, Copper, Silver, Mercury, Platinum, Granite. A few streets are named for minerals that may be somewhat less familiar: Quartz (silicon dioxide, the mineral that makes up most sand and is the most common mineral in the earth's crust), and Galena (lead sulfide, the most important ore of lead). Then there's Porphyry Street. Porphyry is a variety of granite common in the Boulder Batholith around Butte. It refers to a rock of relatively uniform small crystal size, with anomalously large crystals (usually feldspar) included within it. A porphyry copper deposit such as that found at Butte contains low-grade disseminated ore in a complex boxwork of mineral veins.

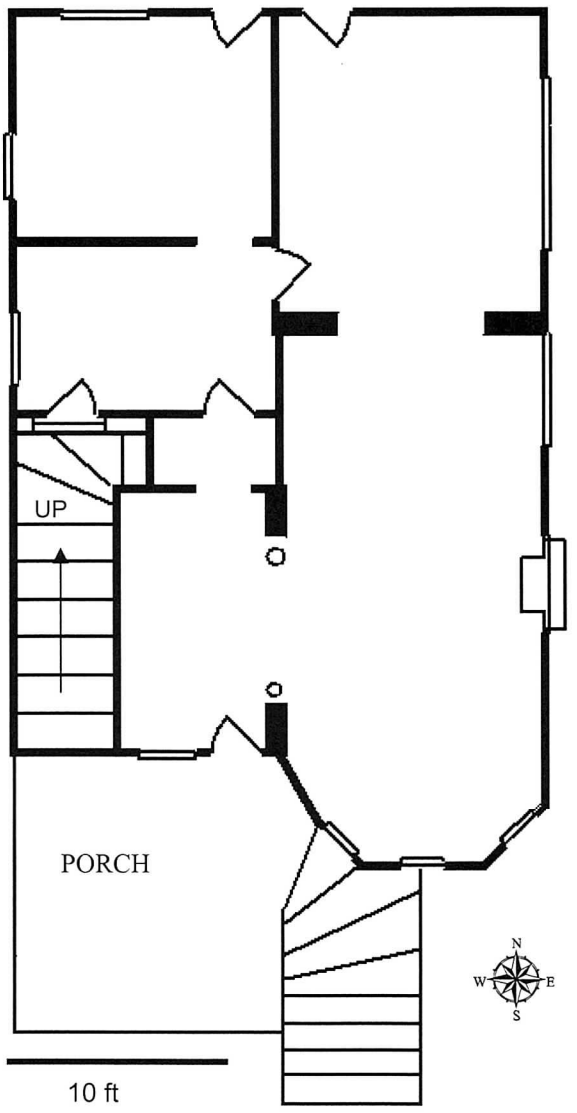
—Richard Gibson

37. Alley between Quartz and Granite Streets

Most of Uptown Butte's streets and many alleys were originally paved with shaped rectangular granite blocks. Many streets still have these paving stones, in some cases beneath later brick, concrete, or asphalt coverings, and the granite pavers are often revealed by street or utility work. Longer curbstones survive along a few blocks, such as Hamilton Street between Granite and Broadway, and in the 300 block of Broadway in front of the Charles Clark Chateau. The only significant visible granite-paved surfaces are in alleyways—behind the Dumas Brothel (45 W. Mercury Street), the alley north of the Archives Building (old Butte Fire Station, 17 W. Quartz Street), and the best is a long stretch of the alley between Granite and Quartz Streets, extending west from Crystal Street to Alabama Street.

38. 609 West Granite Street
Built: c. 1896-99

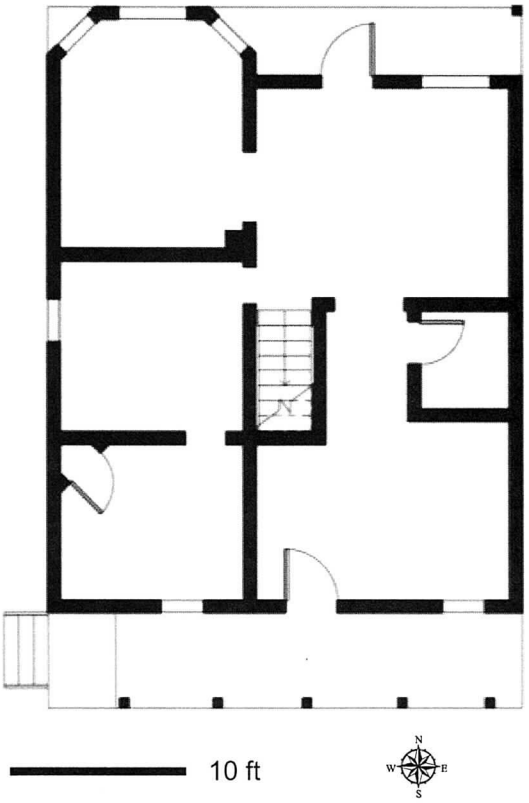
This home is a fine example of the brick Italianate style with a single-bay front—one of several styles that typify the near west side of Uptown Butte. The parapet above the two-story bay lends a castle-like appearance to the house, which was home to a miner who became a mine foreman and labor commissioner.



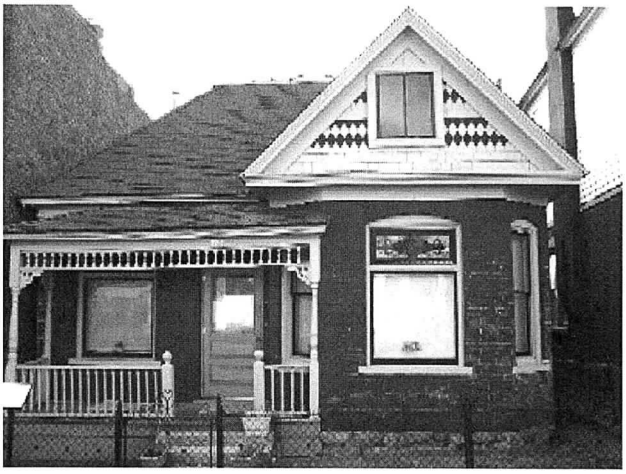
609 West Granite Street. First floor plan. Fieldwork and drawing by Richard Gibson.

39. 724 West Granite Street
Built by: R.R. Williams
Built: 1898

This home is a typical Queen Anne miner's cottage, one of many along Granite Street. The original floor plan is essentially intact; the back porch and attic dormer are additions as is the inside bathroom. Immigrant Irish miner John Powers lived here with his family beginning in 1900, and the property remained in the family until about 1995. Mass-produced Victorian elements including stained glass (probably produced by the Butte Art Stained Glass Works), turned columns and balustrades, and fish-scale shingles were all affordable by Butte's working class. Architect R.R. Williams was a carpenter who lived in the duplex next door to this property.



724 West Granite Street. Fieldwork by Rolene Schliesman, Kent Good, and C. Riley Augé. Drawing by Jackie Little. Photo (above right) by Richard Gibson.

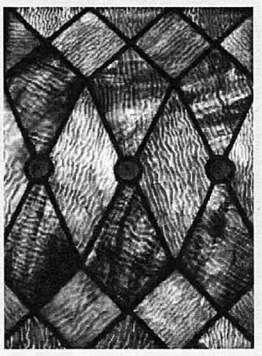


STAINED GLASS

The Butte Art Stained Glass Works operated from 1892 to 1904 and for much of its existence was the "only exclusive glass house in Montana." Its factory was in the 300 block of South Main Street. Competition developed for about a year, in 1899-1900, when the Decorative Glass Works opened at 136 West Granite Street. After Butte Art Stained Glass closed in 1904, it was succeeded by Butte Glass Works—simple glazing, and eventually adding automobile glass to its line of wares. Today's Butte Glass on South Utah Street is the successor to the original stained glass company.

In addition to the stained glass in many private homes, ranging from tiny miner's cottages to upscale West Side locations, it is likely that the Butte Art Stained Glass Works crafted the textured glass in Mountain View and St. Paul's Methodist Episcopal Churches, both built in 1899-1900.

—Richard Gibson & Mitzi Rossillon

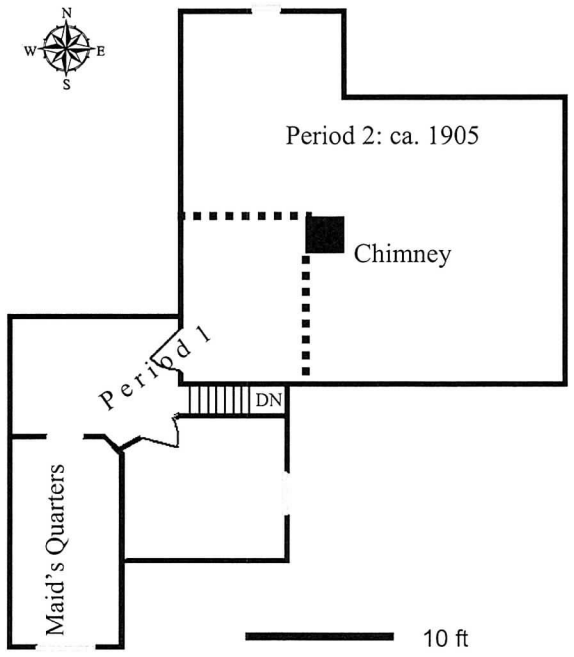


Detail of textured stained glass in Mountain View Methodist Church. Photo by Richard Gibson.

40. Andrew Jackson Davis Home
845 West Granite Street
Built: 1890

Brothers Andrew and John Davis erected these mirror-image homes in 1890 at costs of about $7,000 each. The original separate front stairways led from the front door to the street, but after the street was lowered c. 1900-1905, a central stair serving both homes was installed. About 1905, 845 West Granite was remodeled to add rooms on the second floor and bay windows were moved from the side to the back of the house; the 28' x 41' carriage house was added then, and its elevator still functions. Light switches behind doors reflect a lack of confidence that electricity was more than a fad. The change from early square-nail construction to round nails can be seen in the attic, which also has a masonry chimney carved to resemble bricks.

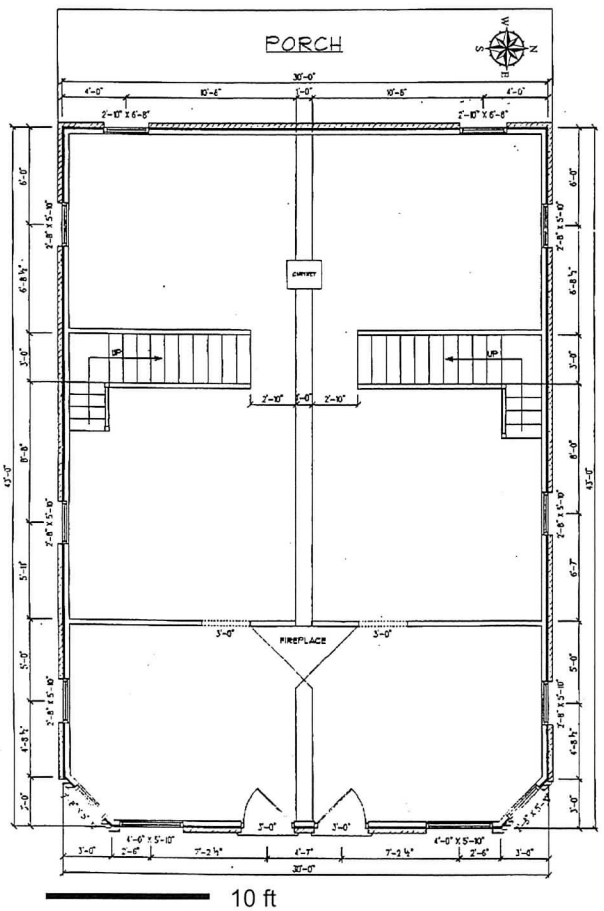
—Josh Yarrington



845 West Granite Street, attic and maid's quarters floor plan. Fieldwork by Josh Yarrington and Richard Gibson. Drawing by Richard Gibson. Dashed lines represent approximate limit of Period 1 (1890) roofing timbers within attic addition.

41. Mary MacLane House
417-419 North Excelsior Street
Built: before 1900

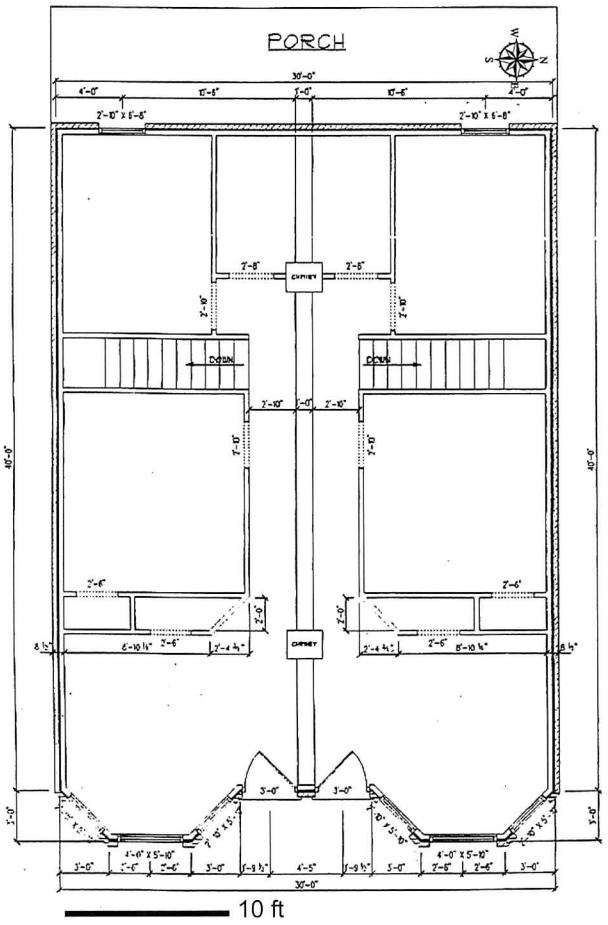
This typical bay-fronted flat was home to controversial Butte author Mary MacLane from about 1900 to 1909. The structure is largely intact with some modifications, damage and deterioration. The front porch is original; the back porch was originally Y-shaped with two independent, two-story porches that had stairs leading to a central platform and then to the ground. The open back porches were enclosed and connected to each level about 1915, when the bath was installed. Designed in the manner of a typical four-unit walkup flat, this home was constructed as a two-unit duplex with internal stairs. The duplex had a stacked upper



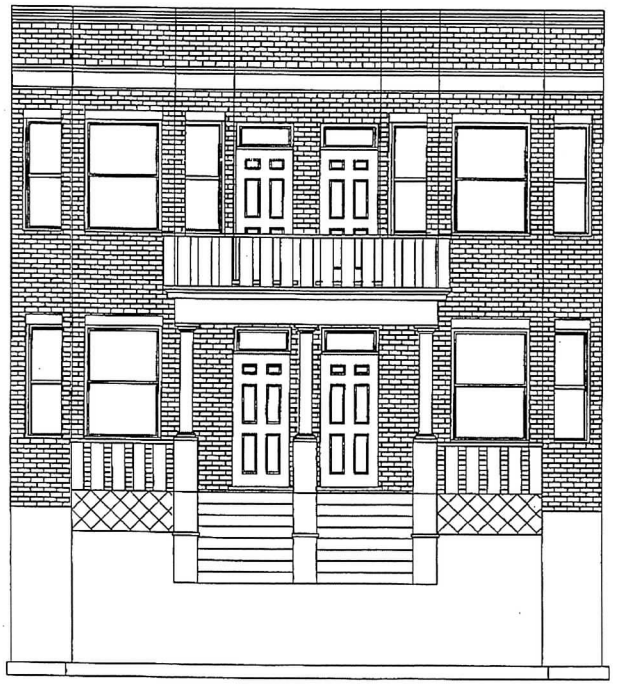
MacLane House, first floor plan. Front porch not depicted. Courtesy Mark Reavis and Montana Tech preservation program.

and lower unit on the south and an upper and lower floor on the north; the latter was the MacLane home. Mary MacLane was 19 years old and living here in 1901 when she penned her famous diary, *The Story of Mary MacLane*. Shocking for its day, the diary expresses Mary's eroticism and strange dreams with remarkable frankness. The book sold 100,000 copies in its first month and was cited by Ernest Hemingway and Gertrude Stein as an influence in their search for a new American writing style.

Many interior changes took place over the decades with the lower floor opened to connect the two original units, forming a first-floor single-family home. The interior stairs



MacLane House, second floor plan. Front porch not depicted. Courtesy Mark Reavis and Montana Tech preservation program.



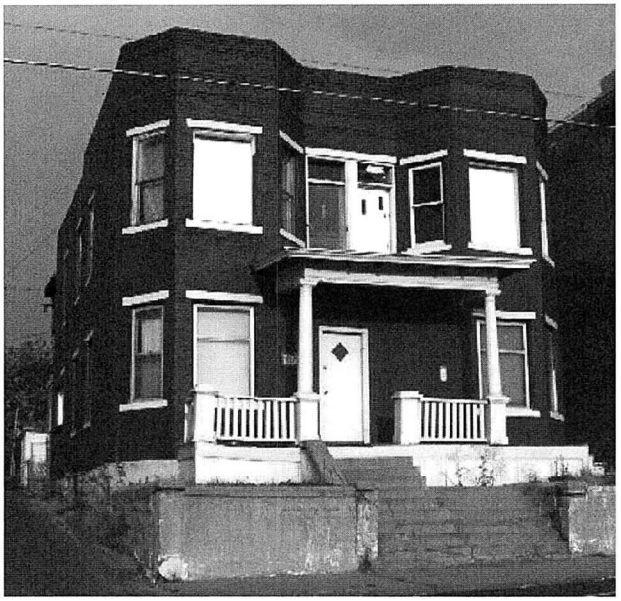
MacLane House, east elevation. Thirty feet wide, thirty-four feet high. Courtesy Mark Reavis and Montana Tech preservation program.

were removed but the two second-story units remained, turning the house into a 3-plex prior to the beginning of restoration work. The removal of the internal stairs was a unique form of birth control undertaken by the family—the father was relegated to the south upstairs apartment (with exterior access) after supper with doors locked to eliminate his midnight visits and the resulting children. The northern second-floor unit was usually rented at a minimal cost to a handyman or family friend.

This building is not platform framed; its balloon-framed wood 2 x 4 studs are two stories high (or a bit more). It has 2 x 10 joists and a minimal attic with a relatively flat built-up asphalt roof sloped to drain to the back. Leaking of the roof has been frequent. The home went through several rounds of tax default and repurchases at tax sales. One of the previous owners thought it would be nice to widen the narrow hallways upstairs by combining them and removed the central bearing wall, a prob-

lem that exacerbated the leaking roof. The building was offered and purchased on a county developer's packet once; those owners defaulted and left town. Ownership returned to the county and it was offered through a second developer's packet procedure and acquired by Butte historians at a cost of $500. Restoration work is being diligently performed by volunteers and as an internship for the Historic Preservation Technology Program at the College of Technology Program at Montana Tech of University of Montana.

—Mark Reavis



Mary MacLane house, 417 North Excelsior Street. A typical bay-fronted flat. Photo by Richard Gibson.

MARY MACLANE

Born in Winnipeg, Manitoba in 1881, Mary came to Butte with her family by 1892. The photo below is from 1903, just after she attained fame through her first book. She both vilified and loved Butte: It was all "sand and barrenness," "near the perfection of ugliness," its inhabitants "uncouth and warped." Her life was a "pitiable, barren, contemptible, damnable, narrow nothingness." But "There is love for me in this Butte. As much for the mountains in their mourning intimateness I feel love for all the outsides and surfaces of the town itself: the stone streets full of houses and shops and brick walls and laundry-wagons and persons: … the little mines in unexpected mid-town blocks with their engines and hoists and scaffolds and green coppery dumps: … the surprising steep Idaho Street hill: the North Excelsior Street neighborhood where I wrote my Devil and Gray-dawn book: … all of it has a feel of something aloof and metallic and distinctive and gray-purple and Butte-Montana."

MacLane quotes from *The Story of Mary MacLane* (1902), and *I, Mary MacLane: A Diary of Human Days* (1917).

—Richard Gibson



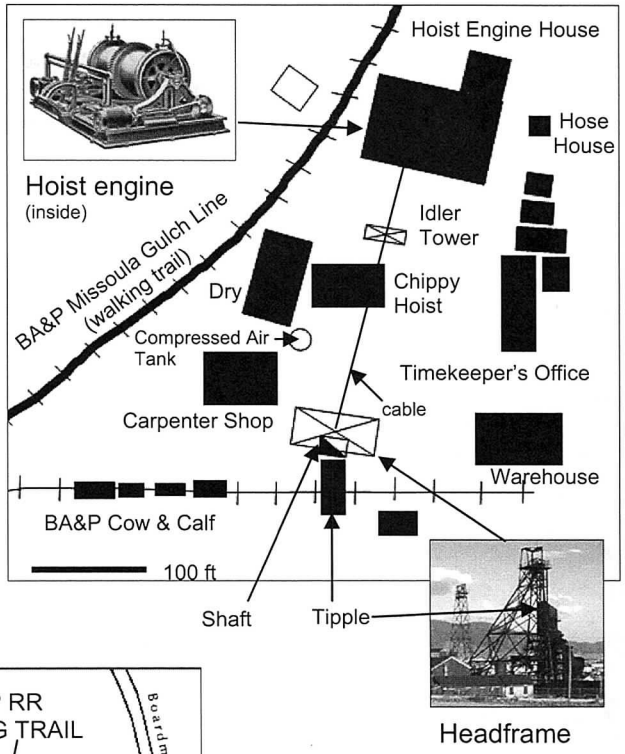
42. Anselmo Mine Yard
Antimony Street east of Excelsior Street

The Anselmo Mine operated from 1887 to 1959, and is 4,301 feet deep. The mineyard is the most intact of any in Butte, and includes the main hoist engine room, an auxiliary (chippy) hoist building (with a lamp room in the lower level), carpenter shop, timekeeper's offices, hose house, the dry, and a warehouse in addition to the headframe with its tipple and two idler towers. The compressed air tank also survives. Inside, tools and other artifacts are found in place, just as they were when the mine was operating.

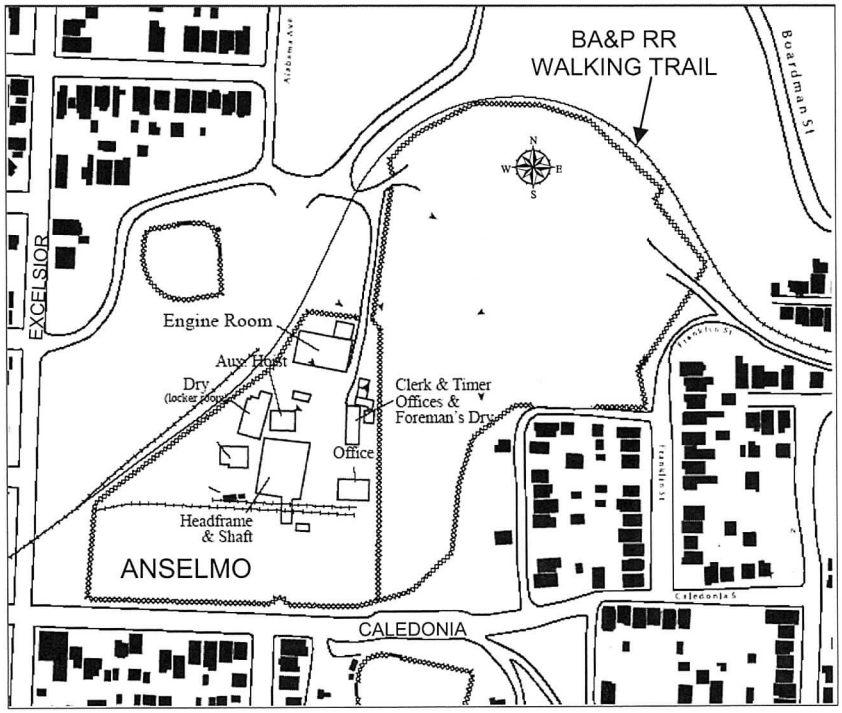
The Anselmo and its mineyard are owned by Butte-Silver Bow County, which is working toward making the mine part of a Regional Heritage Park. As of 2009, it is rarely opened to the public.

The present Anselmo headframe came from the Black Rock Mine, and was moved to the Anselmo in 1936. (See Anatomy of a Headframe, page 122.) The Anselmo yard also held the central timber yard that supplied lumber for underground timbers to many mines. A lengthy strike that shut down most of Butte's mines in 1959 spelled the end of the Anselmo, which did not reopen after that strike.

Reference
Shovers, B., and others, 1991, *Butte & Anaconda Revisited*: Montana Bureau of Mines and Geology Special Publication 99, p. 22-25.



Anselmo Mine Yard site map, above, by Richard Gibson; cf. *Butte & Anaconda Revisited* p. 24.



Anselmo Mine Yard in neighborhood context, left. Black represents residences. Map by Larry Smith.

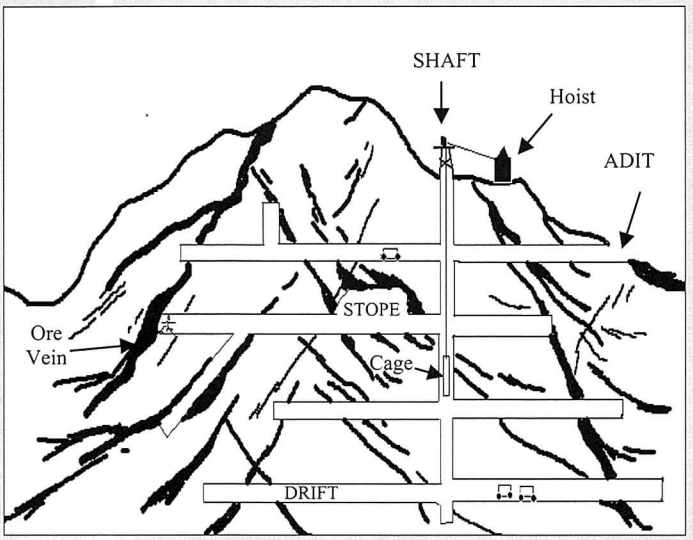
UNDERGROUND MINING

Until about 1915-1920, underground work depended on steam or compressed air, men's muscles, and mules. Most of the mules were not removed until 1923, when virtually all the mines had been electrified—but a few worked in the tunnels until 1934.

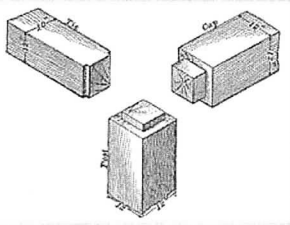
My sweetheart's a mule in the mine
I drive her with only one line
On the bumper I sit
And tobacco I spit
On the back of my sweetheart's behind

—traditional miner's song
(many variations exist)

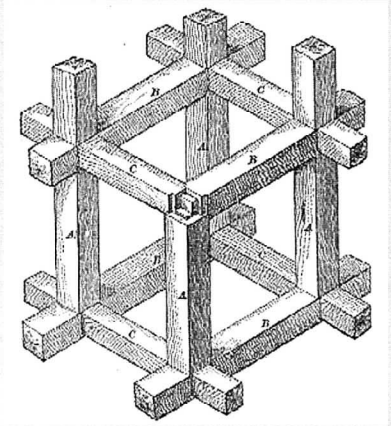
It was relatively easy to fill a cage with men or an ore car with ore—but how did you get a mule down the shaft? Incredibly, in that same little cage that carried six or seven men. A mule was trussed up in a straight-jacket like contraption and tied with ropes, then stood on end in the cage. Not something that was easy for the men nor enjoyable for the mule, and as a consequence mules usually spent most of their lives in the mines. It was said you could tell if a strike was going to be a long one if the mules were brought to the surface.



Men worked in horizontal drifts and vertical stopes. Miners had two primary jobs: to drill the holes for dynamite to blast the rock, and to shovel the blasted rock in to the ore car. The driller and the mucker (shoveler) worked together at the end of long corridors often no more than 10 feet high, but shored up with timbers over the entire length. Butte's 10,000 miles of underground tunnels are one reason there are no old trees here—the mine timbers had to come from somewhere.



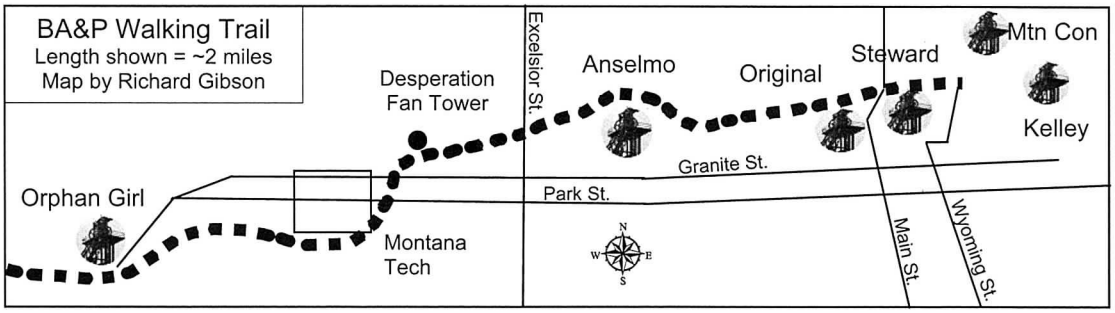
Diverse methods were developed for joining timbers used to support mine shafts and drifts.



The cartoon above is not to scale—the tunnels (drifts) would be around 10 feet high, with solid rock between tunnels typically 100 feet thick. Thus, Butte is not likely to collapse into the 10,000 miles of underground tunnels, even though there is a bit of subsidence in a few places where the diggings are shallow.

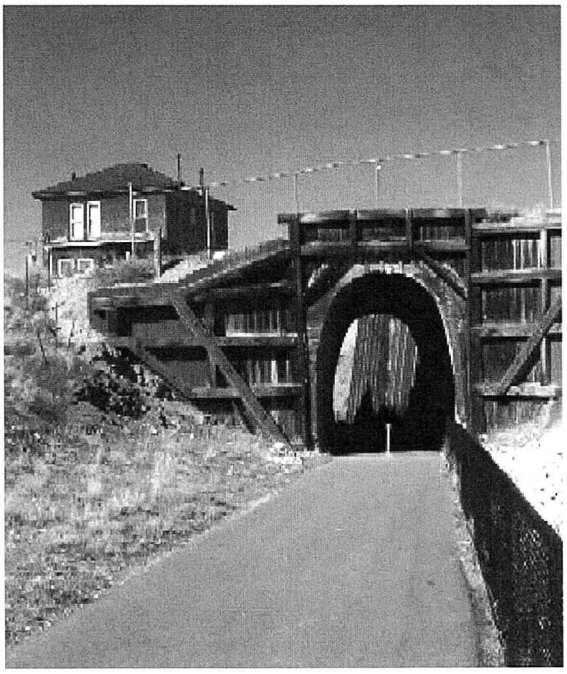
The biggest underground mines in Butte employed 400-600 men at their peak. In 1917, about 14,000 men worked the mines beneath the surface.

—Richard Gibson



43. BA&P Railroad Trail

The Butte, Anaconda & Pacific Railroad hauled ore from Butte's mines to Anaconda's smelters. See page 171 for overview, and description of sites in Anaconda. The railway bed in Butte was converted in 2003 to a walking trail, with interpretive signage along it. It passes the Anselmo Mine yard as it winds westward, where it skirts the Montana Tech campus and continues south of the World Museum of Mining. The Desperation Fan Tower, a ventilation shaft for the Anselmo mine, can be seen along the trail where it crosses Quartz Street near Western Street.



The BA&P Trail displays the close juxtaposition of the railroad with residences. Some homes' doors and windows were no more than ten feet from the rails. The Main Street underpass is seen here. Photo by Richard Gibson.

WALKERVILLE

The Alice Mine, near the northern edge of the Butte Hill, was owned by the Walker Brothers of Salt Lake City, whose name the community bears. From its beginnings in the late 1870s, the town was primarily a workers' village. Most residents were immigrants from Cornwall, England, many of whom worked at the Alice and nearly 60 other northern mines, some of the richest silver mines in the district. Some estimates give Walkerville a peak population of about 4,000; today about 700 live there. Walkerville chose not to be absorbed when the City of Butte and County of Silver Bow merged into a single local government entity in 1977, so it remains an independent town within the county, with its own mayor and town council.

Despite the predominance of Protestant (largely Methodist) Cornish residents, French, Austrian, and Irish neighborhoods existed within and adjacent to Walkerville. The second Catholic parish in the Butte area, St. Lawrence O'Toole, was established here in 1897, built entirely through individual miners' contributions. It was overwhelmingly Irish in its membership. St. Lawrence O'Toole, like Trinity Methodist a short distance down Main Street in Centerville, was a "miner's church," in contrast to the "mine owners' churches" like Mountain View Methodist at Quartz and Montana Streets in Butte.

The Alice Pit and adjacent dump are among the early (1998) and successful examples of Superfund-related reclamation in the area. The dump, landscaped and revegetated, with an interpretive walking trail and picnic tables, is visible from most of Butte as the smooth knob on the northern skyline.

—Richard Gibson

MARCUS DALY STATUE

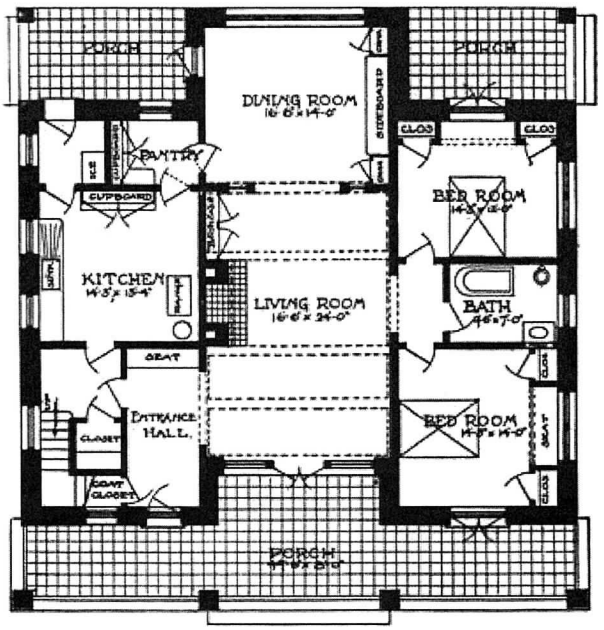
The statue of Marcus Daly, in Park Street at the edge of the Montana Tech campus, celebrates one of Butte's Copper Kings. Irish-born Daly came to Butte from Nevada's Comstock Lode. He worked for the Walker Brothers at the Alice Silver Mine in Walkerville, where he made enough money to invest for himself in the Anaconda Mine, on the Butte Hill. In 1882, with demand for copper soaring to provide wiring for telephones and electricity, Daly's discovery of the Anaconda copper vein marked the beginning of one of the largest mining companies in the world. Daly died in 1900.

The statue was executed in 1906 by Augustus St. Gaudens (1848-1907, and also Irish-born), designer of the U.S. twenty-dollar gold piece. The Daly statue was the last significant work of art produced by St. Gaudens. It stood in North Main Street near the U.S. Post Office (today's Federal Building) from 1907 until 1941 when it was moved to its present location.

—Richard Gibson



Photo by Arthur Rothstein, 1939. Farm Security Administration, LC-USF33- 003098-M5.

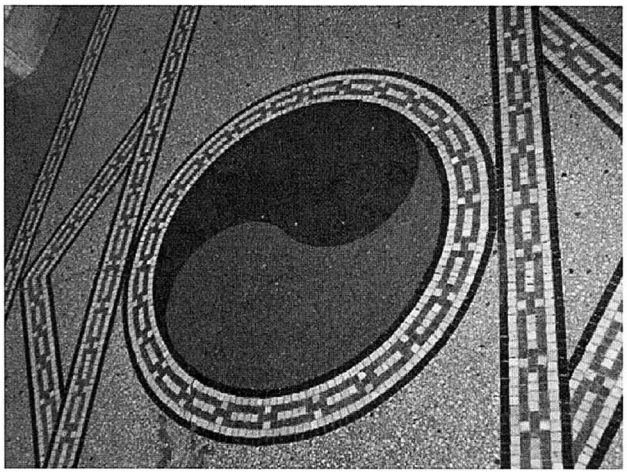


Gustav Stickley's Craftsman model #65. From *The Craftsman*, April 1909. The house at 1149 Antimony followed this plan when built c. 1910.

44. 1149 Antimony
Gustav Stickley Model #65
(no inside access)

45. Front Street Station
800 East Front Street
(not on walking tour map)
Saturday banquet venue
Built: 1904-1906

From east to west, the three buildings in the Northern Pacific Railroad depot complex served as the freight station, the main passenger depot, and the baggage handling station. The facility closed about 1978. The restoration project to return the passenger depot to its historical condition took place in 2003-2007. Brickwork appears to be a variety of Flemish bond. Interior marble, wood, and the terrazzo tile floor are original, although terrazzo crack filling in the floor is part of the recent restoration.



Northern Pacific Railroad logo in entry, Front Street Station. Photo by Richard Gibson.



These miners, waiting to descend a mine shaft, could have enjoyed a pasty lunch. Photo by Russell Lee, September 1942. Farm Security Administration, LC-USW3- 008159-D.

PASTY

The traditional pasty (pronounced păst-ee, not pay-stee)—a meat pie enclosed in pastry to help keep it warm—came to Butte from Cornwall, England. This recipe is from Butte native Julie Crowley.

No Fail Crust

4½ cups flour
1 teaspoon baking powder
1 teaspoon salt
2 cups Crisco shortening
1 teaspoon white vinegar
1 egg yolk
1 cup cold water

Mix dry ingredients together and cut in the Crisco with a pastry cutter or forks. Mix vinegar and egg yolk into cold water. Add liquids and knead dough until it is no longer sticky. Roll out into desired size and add pasty filling.

Pasty Filling

Depending on desired number of pasties:

2 pounds flank, venison, shirting or round steak
6 medium potatoes
One dry onion
Optional: Carrots to taste
Vegetable Oil
Butter or margarine

All of the above are approximations, depending on taste and appetite; more can be added or taken away from the recipe.

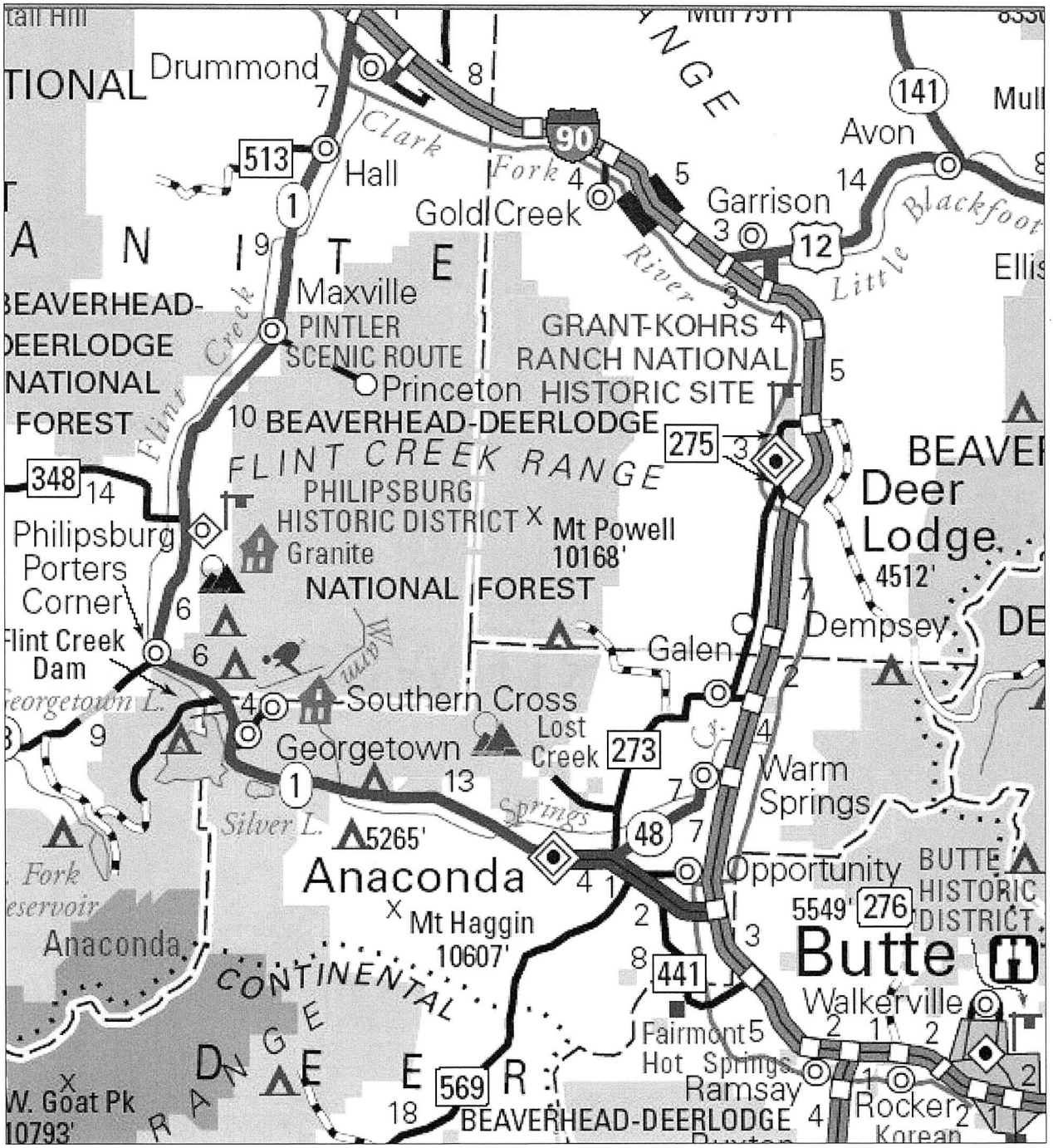
Dice all of the above, mix together, salt and pepper to taste, drizzle some vegetable oil into the mixture to keep it moist.

Roll dough into oblong shapes and add about a 1½ handfuls of filling to one side (do not place on center of dough). Add about 1½ tsp butter or margarine onto the filling. Roll the other side over the filling and crimp the edges. Brush tops of pasties with an egg wash or a milk wash, or leave untouched (will not brown). Make vent holes in top of pasties with knife. Bake at 350 degrees until browned.

Northwest Tour



Shotgun house, common in Anaconda. Drawing by Mark Reavis.





Highway index map for Northwest Tour. Planned route follows I-90 from Butte to Montana Highway 1 to Anaconda, Philipsburg, and Drummond; I-90 to Deer Lodge and back to Butte. Travel to Granite Ghost Town, four miles above Philipsburg, is weather dependent.

Map from Montana State Highway Map, from Montana NRIS system.

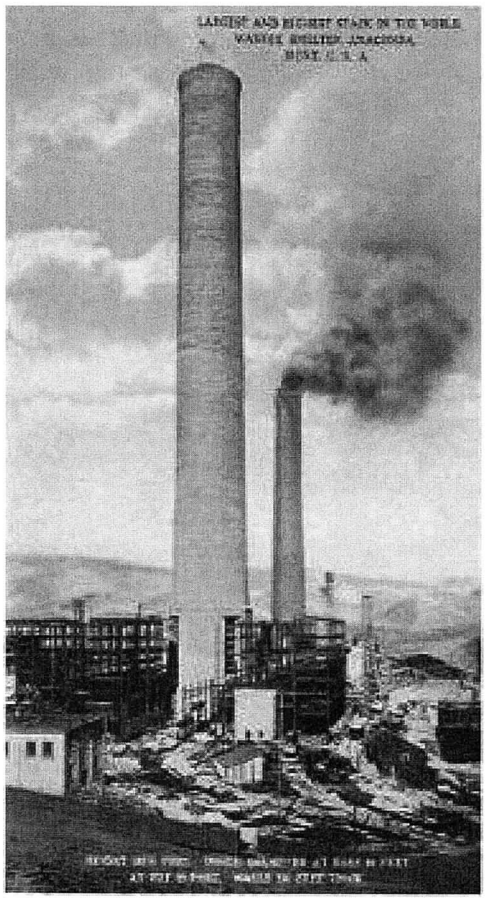
ANACONDA

Developed as a town to support the smelter operations of Marcus Daly's Anaconda Company, Anaconda was laid out soon after the huge Anaconda vein was encountered in Butte in 1882-83. The Upper Works concentrator and smelter facility – the nation's largest when it was built along Warm Springs Creek in 1883 – anchored the rapid growth of the town. Daly's preferred name, "Copperopolis," was already taken, so the town became the namesake of the company. Operations expanded downstream to the Lower Works by 1887; by 1903, a year after the Washoe Reduction Works began processing ore on the hill southeast of town, the Upper and Lower Works ("Old Works") were being demolished. Some stone and brick ruins survive, and today the Old Works is the site of a world-class golf course designed by Jack Nicklaus.

Daly decided to conduct his smelting operations in Anaconda rather than Butte primarily because of the more abundant nearby timber for firing the furnaces, water supply for concentrating ore, and limestone for smelter fluxes, but it had the side benefit (to Butte) of removing the pollution problem. A century of smelter effluent laden with arsenic and sulfur, however, had a dramaticly negative impact on the area around Anaconda, especially downstream and downwind in the Deer Lodge Valley. The smelter stack at Anaconda is the only remnant of the Washoe Reduction Works, the last and largest ore processing facility, in use by 1902 and in operation until 1980.

The brick Washoe smelter stack is 585 feet high, 60 feet in diameter at the top, and 86 feet wide at its base. It is still the tallest free-standing masonry structure in the world. Its walls are 5 feet 4 inches thick, and contain 2,446,392 bricks. It is also the most voluminous stack in the world. Huge piles of black slag remain nearby.

Anaconda's three historic districts have been incorporated into the newly combined Butte-Anaconda National Historic Landmark District, redefined in 2006. The Commercial Dis-



The Anaconda Stack (from an old post card). The Washington Monument also is claimed as the tallest free-standing masonry structure in the world. At 550 feet, it is entirely masonry; the Washoe stack is 525 feet of masonry resting on a 60-foot concrete base.

trict, centered on Park and Commercial Avenues, includes about 60 contributing properties, many of which boast cast-iron store fronts or columns produced locally at the Tuttle (Anaconda, now AAFCO) Foundry.

The West Side Neighborhood, mostly eclectic and up-scale residences, developed primarily in the 1890s and 1900s. More than 200 contributing properties occupy the neighborhood, anchored by the Deer Lodge County Court House in its southeast corner.

Goosetown, the working-class neighborhood east of Chestnut Street and south of Commercial Avenue, grew up near the foundry and in the part of town nearest the Washoe Reduction Works. Narrow lots, boarding houses, and tiny smeltermen's homes echo the working-class neighborhoods of Butte. Nearly 650 buildings contribute to what was an ethnically diverse area, with Croatian, Swedish, and Irish bars, a French-Canadian social club, and Austrian, Swedish, and Norwegian churches.

References

Butte-Anaconda Historic District, National Register of Historic Places Registration Form, 2006, Derek Strahn, Principal Author: National Park Service, 174 p.

Quivik, Fred, 2009, Mining Industry Foundations of the Built Environments of Butte and Anaconda: this volume, p. 11.

Shovers, Brian, Fiege, Mark, Martin, Dale, and Quivik, Fred, 1991, *Butte & Anaconda Revisited*: Montana Bureau of Mines and Geology, Special Pub. 99, 64 p.

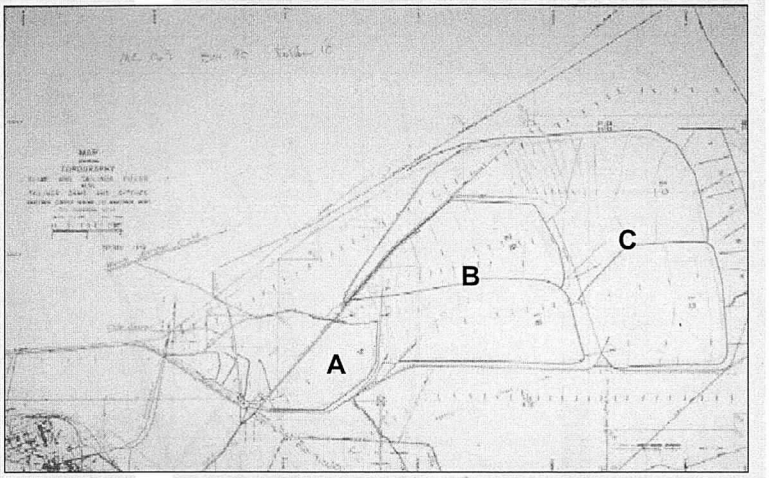
—Richard Gibson

OPPORTUNITY & THE OPPORTUNITY PONDS

After exiting I-90 to drive along Montana Hwy 1 to Anaconda, one passes the community of Opportunity, along the north side of the highway, and then the vast expanse of the Opportunity Ponds comes into view further to the north. Opportunity was developed by the Anaconda Copper Mining Company during the 1910s with two purposes in mind. The company wanted to provide an alternative model community in which families could build houses on five- and ten-acre plots of land that would afford them the opportunity to grow some of their own vegetables and animals for food. The ACM hoped that, by tying workers to the land, the company could attract a more permanent class of smelter workers. And in the wake of the smoke and tailings litigation brought by farmers in the Deer Lodge Valley against the mining industry in the previous decade, the ACM sought to demonstrate that proper drainage of soils would allow the land to be productive of agricultural produce, even under the plume of the smelter stack. The company-owned streetcar system even provided service from Anaconda to Opportunity.

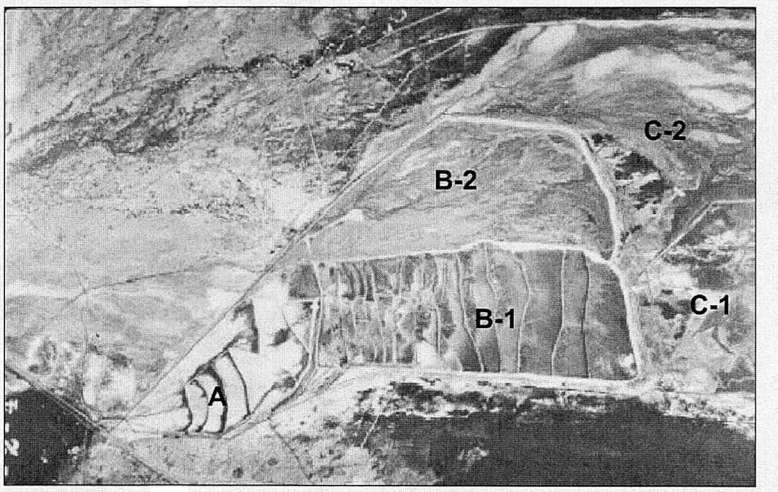
West of Opportunity, the Opportunity Ponds come into view north of the highway. These were developed as tailings impoundments in the 1910s when the ACM converted its concentrator at the smelter to flotation. Traditional gravity concentration involved grinding ore and then subjecting it, in a slurry with water, to a series of jigs and shaking tables in order to separate the denser copper-bearing particles from the lighter particles of gangue bearing no metal values. Gravity concentration was not 100% effective, and the ACM could recover no more than 82% of the copper in the ore through gravity concentration, meaning that 18% of the copper originally in the ore was discarded with the tailings. Those tailings were impounded near the smelter. Flotation involved much finer grinding of the ore and treating the slurry of water and fine solids in flotation cells, in which

frothing agents, chemical reagents (to induce particles of copper mineral to adhere to bubbles), and agitation caused the valuable mineral particles to float to the surface of the cells, from where the metal-rich froth could be collected. The remaining particles in the slurry were discarded as fine tailings. Flotation allowed the ACM to recover 96% of the copper in the ore. It also meant that the company could economically treat ores of much lower grade. As a consequence, the volume of ore treated and of tailings discarded would increase considerably. This in turn necessitated new areas for tailings disposal. The ACM developed a series of large tailings impoundments, called the Opportunity Ponds, in which fine solids would settle, allowing clarified water to be decanted and discharged to the Deer Lodge River.



Above: Opportunity Ponds, Anaconda, 1945 site plan (Box 90, MC-169, Papers of the Anaconda Copper Mining Company, Montana Historical Society, Helena). Note the A, B, & C ponds that are clearly visible in the aerial photo.

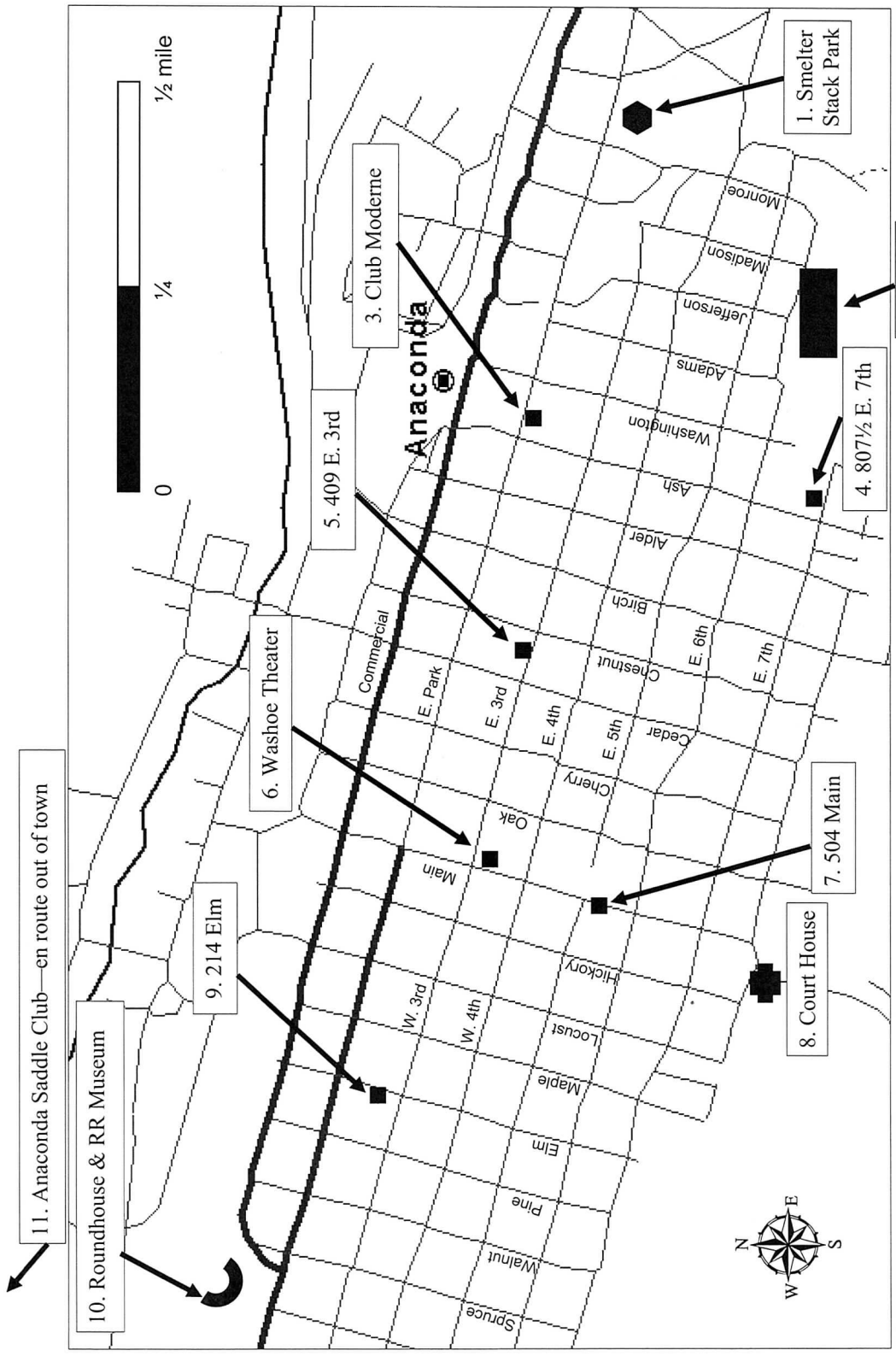
Below: Opportunity Ponds, Anaconda, aerial photo, 1947 (photo from F. Quivik collection). This photo shows the A, B, & C ponds depicted in the site plan above.



The Opportunity Ponds impounded most of the ACM's tailings until the late 1940s, at which point the company developed a new set of ponds, the no. 1 & 2 ponds just east of the smelter. They are the large, unnatural-looking grass-covered hills one sees along the south side of the highway just before entering Anaconda. The no. 1 & 2 ponds functioned until the 1960s, at which point the ACM was running out of room for tailings disposal at Anaconda. As a consequence, the company built the Clyde E. Weed concentrator at Butte and began impounding tailings at the head of Silver Bow Creek, upstream of the Berkeley Pit. The Opportunity Ponds now serve as a disposal area from low-grade hazardous materials being removed from other locations in the Clark Fork Superfund site, including the streamside tailings being removed from along Silver Bow Creek and the Clark Fork River, and the sediments being removed from behind the Milltown dam near Missoula.

—Fred Quivik

ANACONDA SITES



Map by Richard Gibson using Montana Natural Resources Information System base.

ANACONDA SITES

1. Smelter Stack Park

This stop affords a look at a model (at full scale) of the exterior and interior of the stack.

2. AFFCO Foundry, 1015 East 6th Street

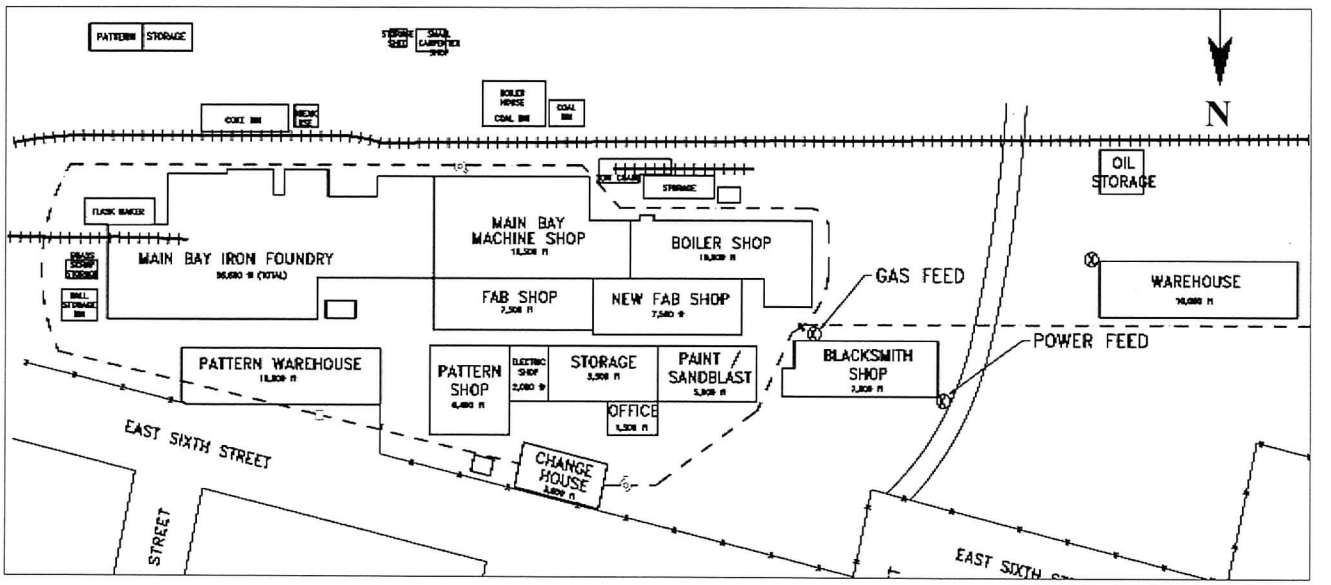
At least four Butte iron foundries produced cast iron products. The most common labels on Butte's columns are from the Montana Iron Works and Western Iron Works, both located in Butte.

The Butte foundry of Tuttle and Co. began operations about 1881 and ultimately merged with the Anaconda Company as part of the ACM Foundry in Anaconda. In the 1890s, the Tuttle Foundry was the largest in Montana by number of workers, at about 175 men. Operations continued as part of the Anaconda Company until the Anaconda was acquired by ARCO in the late 1970s. Economic conditions drove ARCO to shut down all mining and smelting operations in Butte and Anaconda by the early 1980s, but the original Anaconda Foundry and Fabricating Company survived as a private venture now known as AFFCO, Inc. The new (historic style) street lamp posts in Anaconda were cast here, using original patterns from the late 19th century.

The foundry grounds include 32 buildings and 18 structures. The site was listed on the National Register in 1988.

Reference
Shovers, Brian, Fiege, Mark, Martin, Dale, and Quivik, Fred, 1991, *Butte & Anaconda Revisited*: Montana Bureau of Mines and Geology, Special Pub. 99, 64 p. The foundry and its history are described in detail in Chapter 4, pages 45-50.

—Richard Gibson

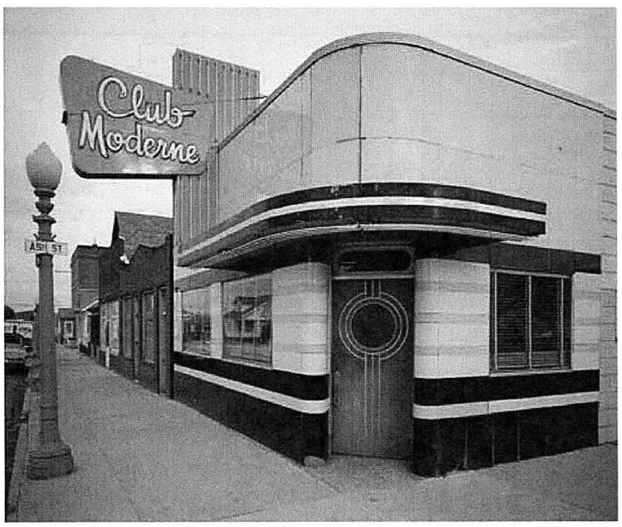


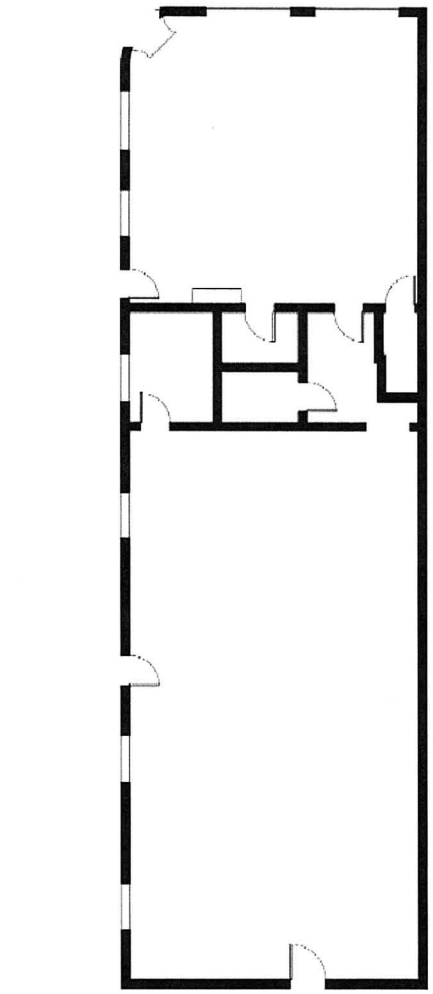
AFFCO site plan (courtesy AFFCO).

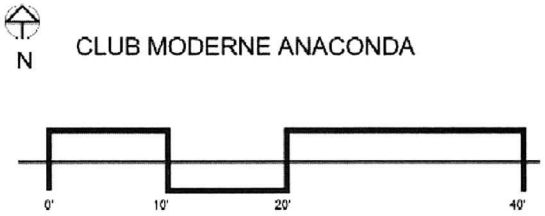
3. Club Moderne, 811 E. Park
Architect: Fred F. Willson
Built: 1937

With a façade covered in bands of black, ivory and gray Carrara glass, a recessed corner entrance sheltered under a curving canopy, circular windows, and aluminum and stainless steel accents, Club Moderne survives as the most intact and striking example of Art Moderne in the state. Original owner John "Skinny" Francisco hired one of the state's most noted early 20th century architects to design the building, and paid $25,000 for its construction at the corner of Park Avenue and Ash Streets. Three neon signs mounted on the parapet identify the same number of patron entrances. A marquee with "Club Moderne" in cursive script boldly projects above the main door, while smaller, vertical "BAR" and "LOUNGE" signs indicate access on the side doors facing Ash Street.

Remarkably, the 80' x 24' one-story building retains almost all of its interior decorative furnishings and design details. The interior is divided into a 24' x 25' front bar room, and a rear cocktail lounge measuring 24' x 44'. The front bar, moved by Francisco from his earlier bar located in a building immediately adja-







Club Moderne. Fieldwork by Rolene Schliesman, C. Riley Augé, and Betsy Pahut. Drawing by Jackie Little.

Photo (left) by Jet Lowe (1979), HABS MONT 12-ANAC-1-A, MT-53-A-1.

minum-framed ceiling lights and mirrors. The original Nu-Wood, fiberboard tile ceiling and tiletex, mastic material floor survive. The lounge boasts Art Moderne details from its chrome and formica tables, to its leather and chrome chairs, booths and back bar. The color scheme is tan and henna, executed most strikingly in diamond-patterned leather panels on the back bar and in a "V" shape on the lower wall surfaces. The bar includes back-lit glass shelving, a padded leather ceiling, and mirrored panels flanking a chromium-clad cash register.

—Dena Sanford

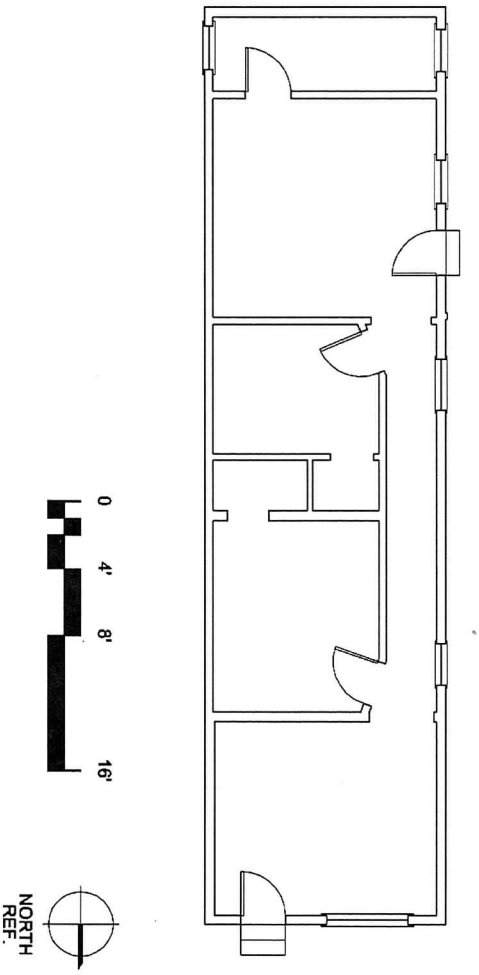
FRED F. WILLSON

Bozeman native Fred Fielding Willson was born in 1877, the only surviving son of General Lester S. and Emma Weeks Willson. General Willson was a Civil War veteran, territorial legislator, and Bozeman pioneer. His son attended the community's Montana School of Agriculture and Mechanic Arts (now Montana State University). After his junior year he enrolled in Columbia University in 1902. He received a bachelor's degree in architecture and returned to Montana to work in the Helena office of Charles S. Haire for two years. His travels in 1904-05 included study at the Ecole des Beaux Arts in Paris. He returned to the United States in 1906, and worked briefly with the New York city firm of (Theodore C.) Visscher and (James) Burley. Later that same year Willson returned to Montana to manage the Butte offices of Link and Haire. Willson returned permanently to Bozeman in 1910 and opened his own office in the Commercial National Bank Building. By the time of his death in 1956 Willson had designed hundreds (his job list counts involvement in 1815 projects) of commercial, public and residential buildings in the Bozeman area and across the state. He designed freely in several architectural styles including Spanish Colonial and Renaissance Revival, Rustic, Art Deco and Art Moderne.

—Dena Sanford

4. 807½ East 7th Street (Goosetown District)

This simple gable-front wood-framed building is one of a pair of typical workers' houses located at the southeast fringe of Anaconda, within 250 feet of the site of the Anaconda Copper Mining Company's Foundry. The narrow lots, regular setbacks, and small building footprints are typical of this working class neighborhood that included a large number of bachelor cabins, worker's homes, and boarding houses. This neighborhood was opened,



807½ East 7th Street. Fieldwork by Lesley M. Gilmore, Rolene Schliesman, and C. Riley Augé. Drawing by Lesley M. Gilmore.

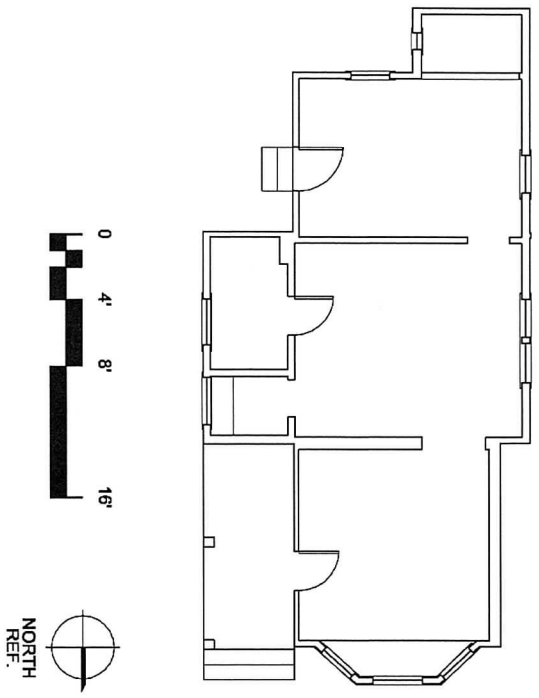
by the Anaconda Company, for residential development in 1895 as a result of increased pressure for housing the growing workforce. This marked the beginning of Anaconda's largest residential construction period which lasted through 1905; 1376 houses were built during these ten years. The pitched roof - originally covered with wood shingles – of this cottage, wood drop siding, pronounced frieze boards, tall windows, and rubblestone foundation are typical of this period. The rubblestone foundation is supplemented with packed dirt foundation walls retained with wood boards.

This one-story dwelling – at 14'-3½" wide by 54'-7" deep – is by necessity of its narrowness a modified shotgun with a long narrow side hallway from the front living room back to the kitchen. Angled wall facets provide room for doorways to two bedrooms off the hallway. The building was originally only 36'-4½" long; the kitchen, bathroom, and garage were added to the rear of the building between 1903 and 1950; attached garages were common additions during the 1920s and 1930s in this neighborhood. The building expansion and window modifications are clearly marked on the exterior. The tenement housing at the rear of the adjacent lot (to the east) was torn down prior to 1950.

—Lesley M. Gilmore



807½ East 7th Street. Photo by Rolene Schliesman.



409 East 3rd Street. Fieldwork by Lesley M. Gilmore, Rolene Schliesman, and C. Riley Augé. Drawing by Lesley M. Gilmore.

5. 409 East 3rd Street

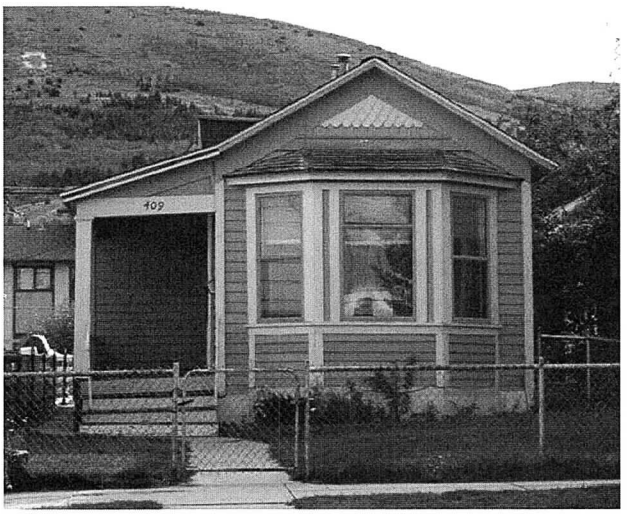
With the founding of Anaconda in 1883, this West Side neighborhood opened to residential development. Many of the 50-foot-wide lots were improved by 1900. This small house is located on the eastern edge of this neighborhood, where some of the lots are shared by two or more dwellings. As late as 1950, there were still three dwellings on this lot: the house at 411 to the east and a two-room dwelling by the alley.

This simple gable-front wood-framed building is indicative of the incremental evolution from a one-room cabin (the current bedroom) to a two-room bathroomless home on a small lot into a long narrow shotgun home with bathroom and full kitchen. The core of this one-story building – the bedroom and kitchen -

was erected by 1890, the front living room added by 1896, and the bathroom and side front porch were built c.1940. The rear pantry was built after 1950. The date of the three-sided front bay addition is unknown.

The simple wood clapboarding and trim and interior treatment present a somewhat cohesive appearance. The roof shapes, Sanborn maps, and exterior trim clues help tell the expansion story of the house, which was concurrent with Anaconda's growth.

—Lesley M. Gilmore



409 East 3rd Street. Photo by Rolene Schliesman.

6. Washoe Theater, 305 Main Street
Architect: B. Marcus Priteca
Interiors: Nat Smythe, Colville N. Smythe
Built: 1931-1936

The restrained exterior masonry ornamentation on this two-story, 1000-seat brick theater gives little indication of the elaborate and completely original Art Deco detailing inside. The interior magnificence is first indicated in the entrance lobby, with its ceiling of built-up, receding planes of Cerulean blue paint. This is followed in the foyer with murals based on an ancient Persian fairy tale. The greatest artistic expression is found, however, in the auditorium, confirming the Washoe's stature as a "movie palace." The auditorium walls are painted in soft pastel shades accented with gold, silver and copper leaf. Hand-painted turquoise silk plush stage curtains depict rearing deer and their tormentors. Above, a frieze of bas-relief rams' heads in medallions is finished in eight shades of gold. A similar treatment is given the proscenium arch with various portions also highlighted with copper leaf. Over all of this, on the domed ceiling, is a mural entitled "Montana," with figures representing copper mining, culture, education and industry.

Despite decades of use, the Washoe is highly intact. Even the smallest details survive, including the rods which support curtains over



(Right) Interior of lobby, Washoe Theater. Photo by Jet Lowe (1979), HABS MONT,12-ANAC,1-B-4

the auditorium door. These are decorated with a leaf motif. The frosted glass and metal lighting fixtures are likewise intact.

A group of Anaconda citizens hired Priteca, the well-known Seattle-based theater architect who designed all of the Pantages vaudeville theaters in the country. The elaborate interior decoration, including murals, was undertaken by artists from Los Angeles. Missoula contractor Gus Forseen undertook construction. The Great Depression delayed completion of the interior finishes until 1936. The Washoe ultimately cost $200,000.

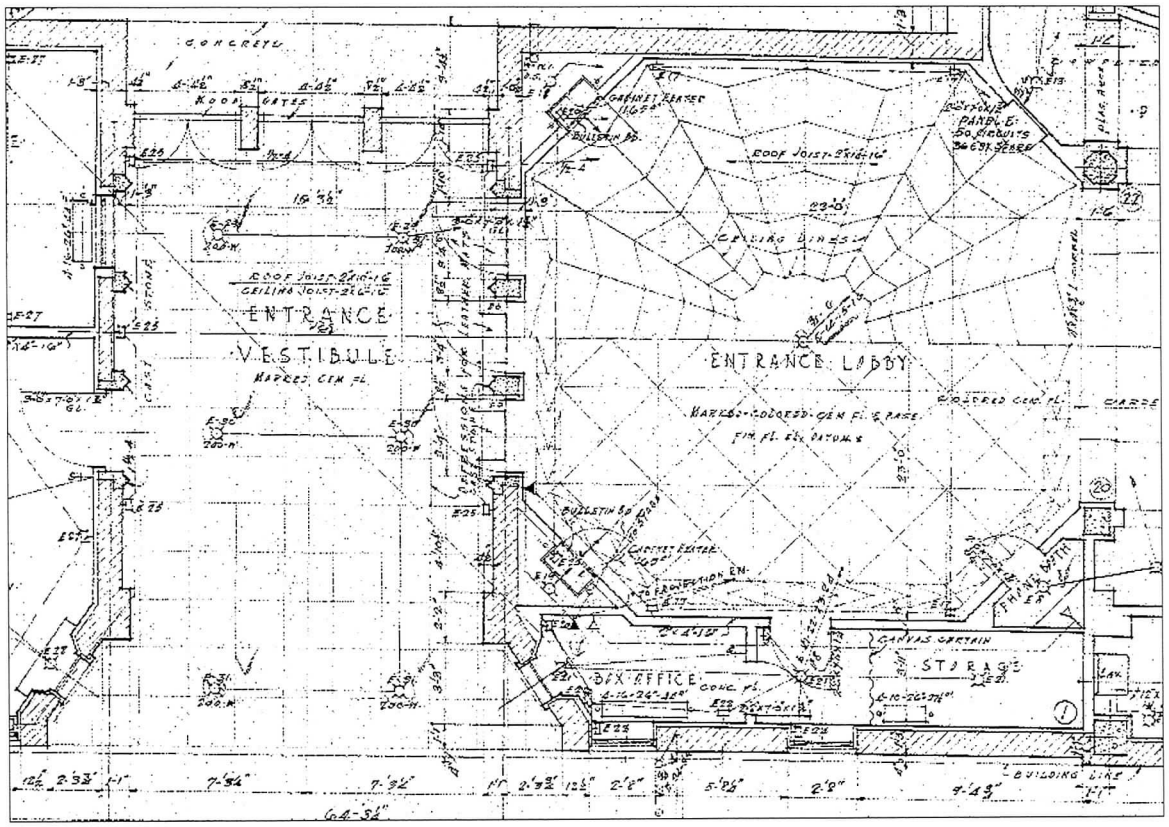
The Washoe is the second theater to occupy the site. It replaced the Sundial Theater, built in 1897 as the Margaret Theater in honor of Marcus Daly's wife. Following a sale in 1926 the Margaret was renamed, but destroyed by fire in 1929.

—Dena Sanford

MARCUS PRITECA

B. Marcus Priteca (1890-1971) had a distinguished career as a theater architect, beginning in 1911 with the opening of the San Francisco Pantages Theater which he designed for Alex Pantages. From that time forward Priteca, then 21, was to be the sole architect for the Pantages circuit, the largest privately-owned vaudeville circuit in the world. In 1916 he designed the Coliseum of Seattle, considered to be the first movie palace. Other theaters designed by Priteca were a second Pantages in San Francisco; Pantages theaters in Memphis, San Diego, Fresno and Hollywood; Warner Brothers Theaters in Huntington Park, San Pedro and Beverly Hills; Orpheum theaters in Vancouver and Seattle; and Palomar and Paramount theaters in Seattle. In all he designed approximately 150 major theaters.

—Dena Sanford



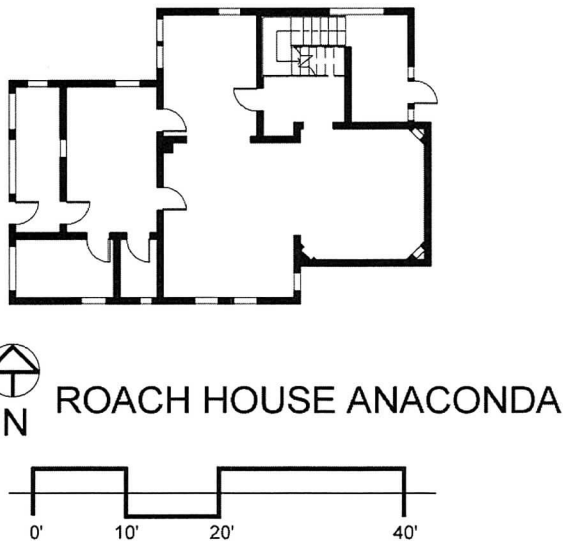
A portion of Priteca's original plans (1930) for the Washoe Theater. Courtesy Paul Filicetti.

7. The Roach House, 504 Main Street
Built: 1895

This 1½-story brick house displays the eclecticism of the late 19th century with its irregular form and complex roof lines. Elements of the Queen Anne and French Second Empire styles are evident, including an unusual octagonal tower set atop a large Mansard-roofed corner bay window. The tower is finished with a domed roof and original metal cresting. Stone quoins and brick form an unusually-shaped surround on the front window. An addition was built about 1940, and the porch has been enclosed.

The residence served as a rental property for its first owner, Albert MacCallum, who operated Anaconda's successful MacCallum & [August] Cloutier grocery firm. In 1904 Dennis Roach purchased the house. Roach was a miner, businessman and politician who moved to Anaconda from Indiana in 1889. His wholesale distribution business, formed with Fred B. Smith, still exists today.

—Dena Sanford



Roach House. Fieldwork by C. Riley Augé, Rolene Schliesman, and Betsy Pahut. Drawing by Jackie Little.



Roach House. Photo by Rolene Schliesman.

8. Deer Lodge County Courthouse
800 Main Street
Built: 1898-99

The Deer Lodge County Courthouse is a neoclassical style building, constructed 1898-1899. It is a three-story stone structure with a central stone tower resting on steel. The building's interior includes a switchback staircase, and a rotunda with overhead dome frescoes--the latter executed by the Consolidated Artists of Milwaukee. In January 1898, residents of Deer Lodge County approved a $100,000 courthouse bond for the erection of this facility. The original building contract was let to the Dolan and Hamil Construction Company for $96,750 on June 14, the same year. Work on the proposed site began one week later. By September 22, 1899 the roof on the courthouse was installed. Subsequent additions and building modifications raised the final sum to $100,539, notwithstanding $10,000 paid by the county for the landsite. Following completion in the spring of 1900, county officials moved from their former quarters in Anaconda's City Hall (on East Commercial Avenue) to this new site. At the south end of Main Street, the Deer Lodge County Courthouse is

the terminus of the city's central corridor. In 1932 complete stencils were made of the interior frescoes for the purpose of repainting. Again in 1973, renovation of the courthouse was undertaken. On this occasion the frescoes were cleaned and retouched. The ornamental ironwork and grills at the staircases and rotunda were also repainted.

—Monica Hawley, HABS



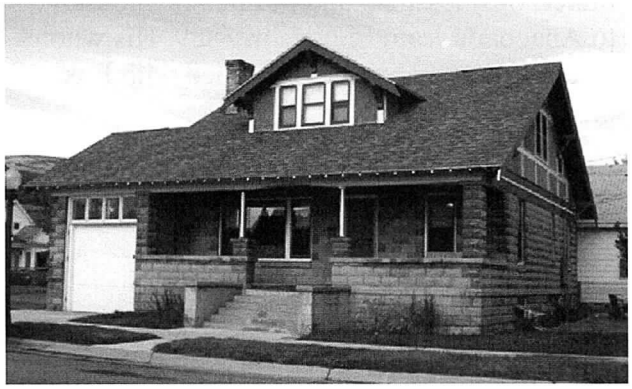
Deer Lodge County Courthouse, Anaconda. Photo by Jet Lowe (1979). HABS MONT,12-ANAC,1-C-1.



Detail from Deer Lodge County Courthouse rotunda. Oro y Plata ("gold and silver") is Montana's state motto. Photo by Richard Gibson.

9. Frank Oldhaber Bungalow
214 Elm Street
Built: ca. 1919

The 1½-story Craftsman style, side-gabled bungalow is distinguished by its concrete block wall construction, and "half timber" gable ends finished in stucco with mock stick detailing. The blocks were fabricated on site by Frank Oldhaber, the builder and owner, at a rate of 8 to 10 blocks per day using a mechanical block maker. A deep front porch, typical of the style, extends the full width of the east façade. The single car attached garage on the south end is relatively unusual for a bungalow. It has fully finished window and door woodwork, plaster walls, a grease pit, heater vent, coal chute and access to storage under the front porch. West of the garage is a sunroom rear porch that also provides access to the basement.



214 Elm Street. Photo by Rebecca Sheppard

The building was designed as a duplex, with a two-bedroom unit on the first floor and a one-bedroom apartment on the second floor. The interior is largely intact, and retains its boxed ceiling beams, light fixtures, built-in cupboards, ironing boards, bookshelves, and original linoleum.

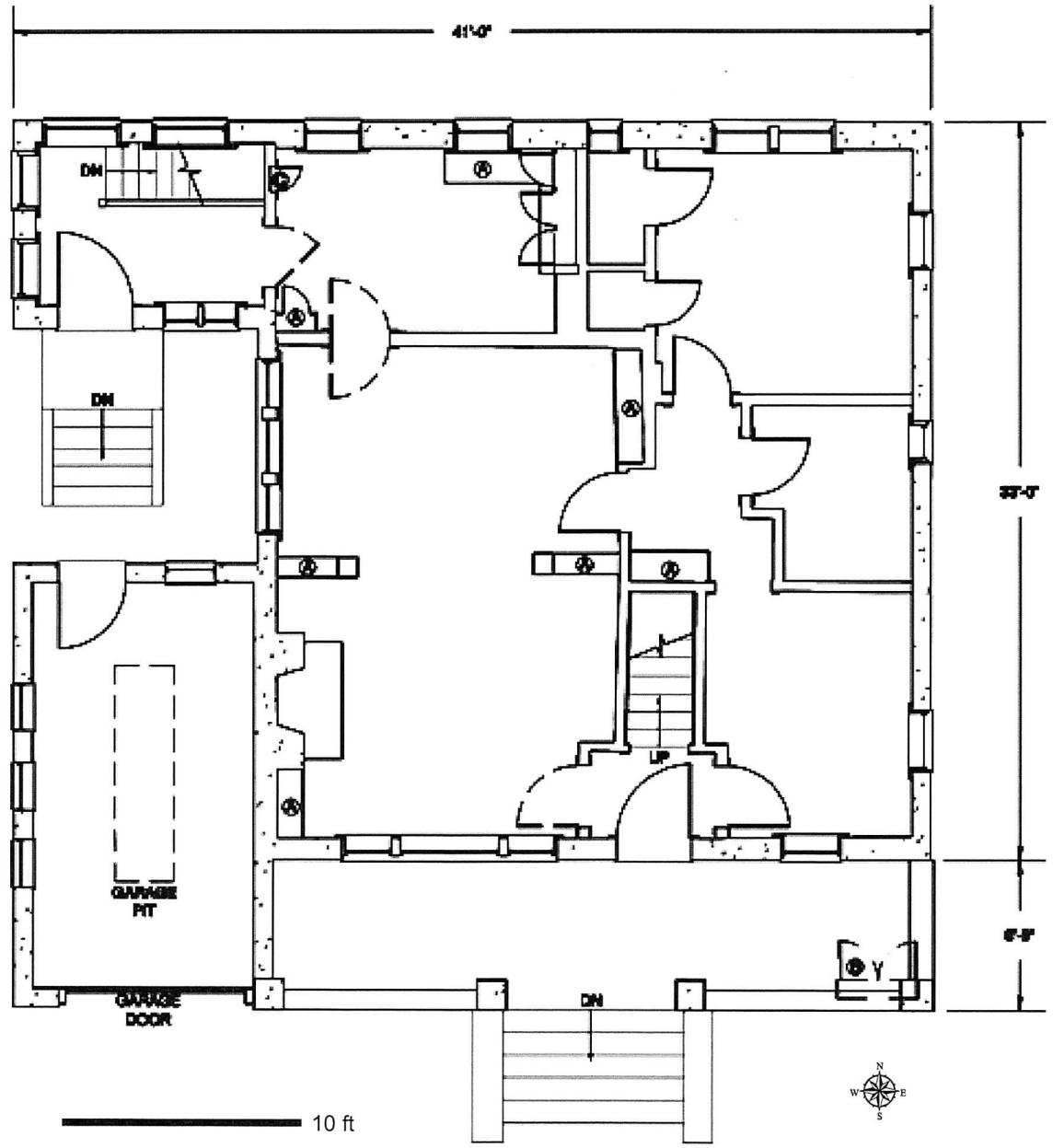
The bungalow remained in the Oldhaber family until the 1980s. The current owners pur-

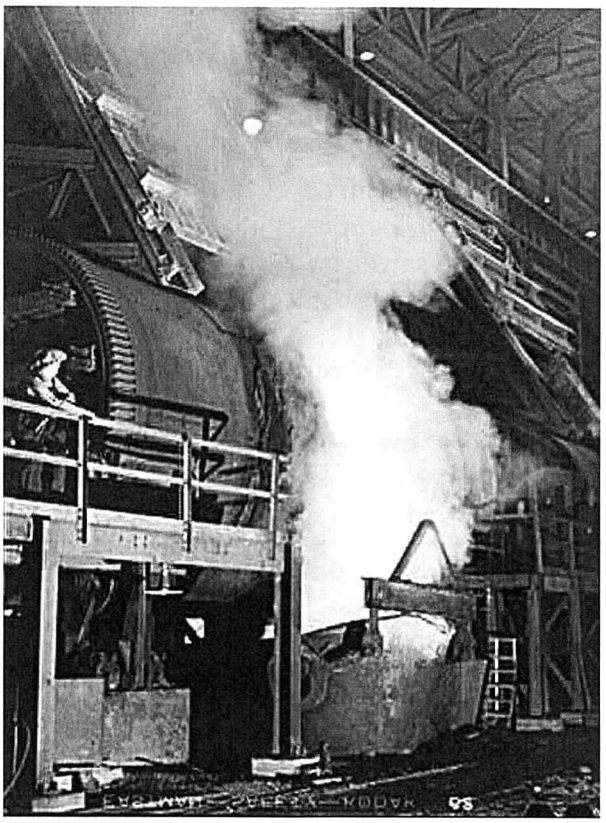
chased the property from the second owners in 2003, and converted the bungalow to a single family residence by taking down (and storing) the stairway door off of the small front foyer.

A wood frame shed (ca. 1896-1910) behind the house once served as an ice distribution business; the walls are insulated with sawdust. The southeast corner of the shed includes a small office, complete with toilet and sink.

—Dena Sanford

Below: 214 Elm St., First floor plan. Fieldwork by Kimberly Toney, Kara Briggs, Elyse Poinsett. Drawing by Elizabeth Peebles.







Above: pouring molten copper, Anaconda Smelter. Below: Smeltermen leaving work at the end of the day. Both photos by Russell Lee, September 1942: Farm Security Administration, call numbers LC-USW3-008851D and 008621D.

BA & P RAILROAD

The Butte, Anaconda and Pacific Railroad was the first significant heavy-haul electrified railway in the world. The rail company was organized in 1892 and the first trains ran from mines near Anaconda to the smelters there beginning January 1, 1894. The line from Rocker into Butte opened a year later, and eventually wound its way across the Butte Hill, stopping at all the important mines to pick up ore for shipment to Anaconda, about 25 miles to the west.

Marcus Daly's Anaconda Copper Mining Company owned the railroad, which was served by 33 steam locomotives until 1913 when the company took the bold step of electrifying the line. Twenty-seven electric engines were built between 1913 and 1917 and served until 1967. Today only one survives: #47, built in 1914, is part of the World Museum of Mining collection and is on display at the Anselmo Mine Yard in Uptown Butte. It was restored by retired railroad workers, and it is reputedly the engine that was displayed at San Francisco's Panama-Pacific International Exposition in 1915 as part of the General Electric exhibit.

Diesel engines, built in the 1950s, took over for both the remaining steam engines (used until 1952) and for the electric engines in 1967. Passengers were carried until 1955 on two to four trains per day, averaging as many as 1,000 passengers per day in the 1910s and 1920s. Passenger service included stops at Gregson Hot Springs, a resort between Butte and Anaconda.

At the peak of copper mining in 1914-1918 as many as 12 trains per day hauled ore from Butte to the smelter in Anaconda, totaling three to five million tons of ore each year. The rail line carried up to 13 million tons of ore per year after the Berkeley Pit operation (started in 1955) began to yield huge quantities of ore.

In 2002-2003 the tracks on the Butte Hill Line were taken up along with some of the roadbed itself, because it had been constructed using mine tailings and smelter waste that can react when exposed to the elements to produce acid and other undesirable pollutants. The road was covered with new rock and shaped into a walking trail. The BA&P Railway Historic District was designated in 1988. The 2006 expansion of the Butte-Anaconda National Historic Landmark District merged the Railway District with historic districts in Anaconda and the Butte National Historic Landmark District.

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Mutschler, Charles V., 2002, Wired For Success: The Butte, Anaconda & Pacific Railway, 1892-1985: Washington State University Press, Pullman, 136 p.

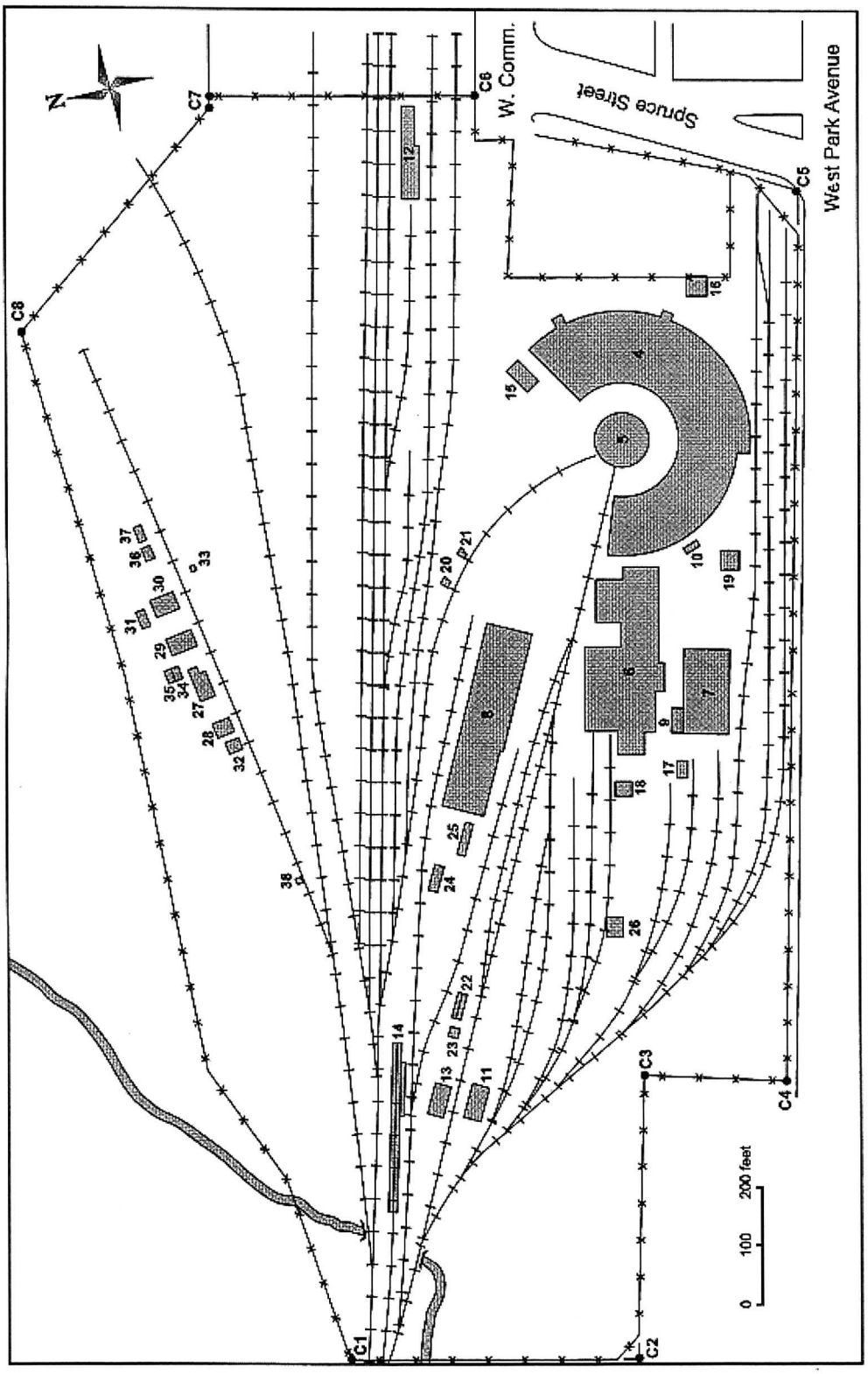
—Richard Gibson

10. Butte, Anaconda & Pacific Railway Company
West Anaconda Yard
900 West Commercial Avenue

All BA&P Yard descriptions by Dena Sanford

Roundhouse
Architect: Attributed to Great Northern Railway engineers
Built: 1893; 1907 addition

The semicircular brick building is one of the major facilities in Marcus Daly's BA&P maintenance complex, one of the most intact examples of 19th century railroad shop facilities in the western U.S. The Roundhouse sheltered rolling stock, particularly steam engines, which were difficult to start in cold weather. The outside wall and end walls are brick and there are three brick firewalls inside. A timber post and beam system supports the shed roof. The original west section has a 60' inside radius and a 130' outside radius. Double wood doors access the bays. The 1907 addition doubled the building's size and provided ten addi-



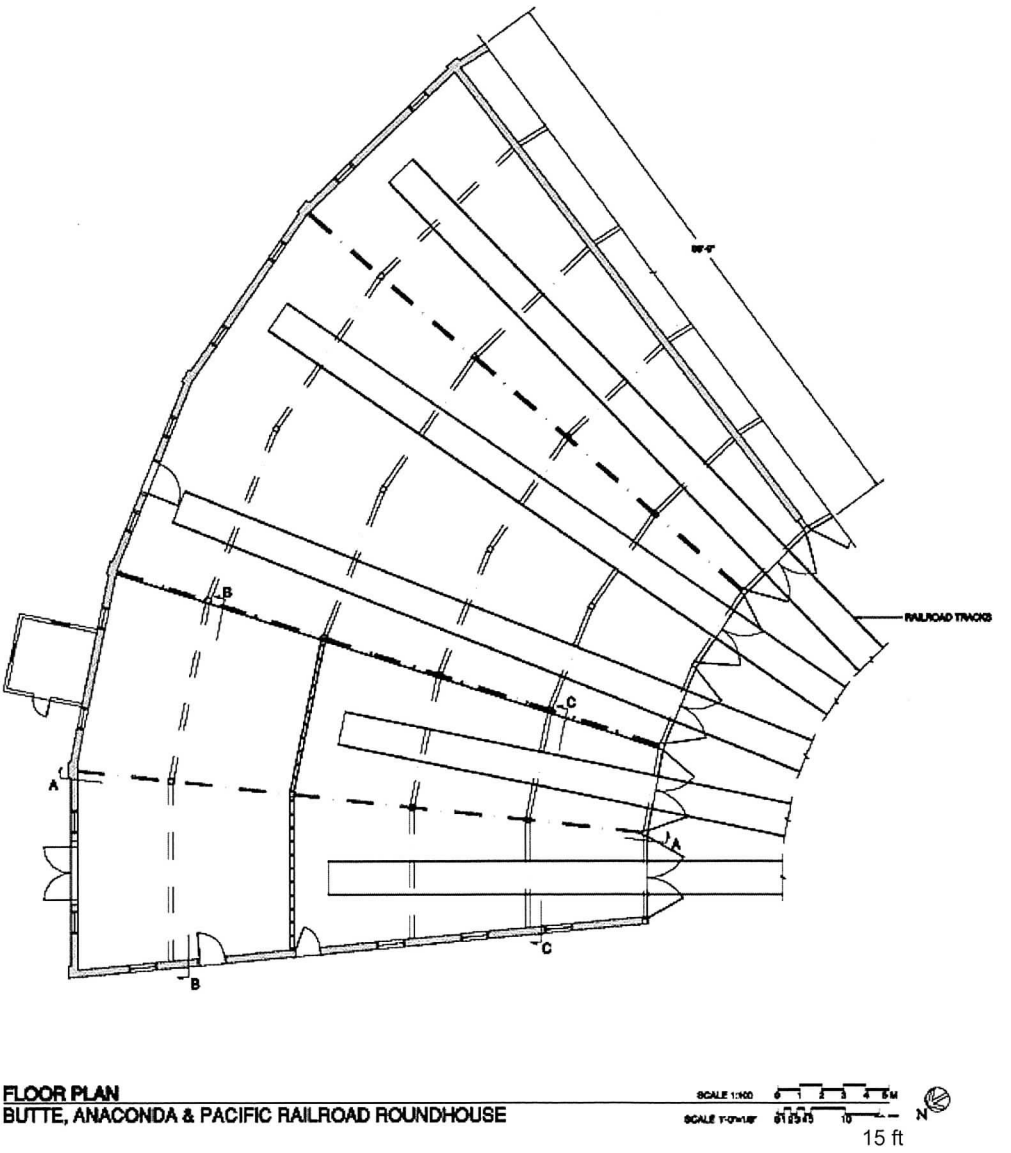
West Anaconda Yards of the Butte, Anaconda & Pacific Railway

Key to sketch map

Note: Numbers 1-3 are not shown on this map; they are the Montana Union Depot, a shed, and the B.A.&P. General Office

4. Roundhouse
5. Turntable & pit
6. Machine shop & locomotive repair
7. Blacksmith & boiler shop
8. Warehouse & office
9. Acetylene welding machine
10. Shops toilet
11. Oil house
12. Wrecking crane house
13. Sand house & dryer
14. Coal dock
15. Paint shop
16. Yard office
17. Acetylene generator building
18. Acetylene & oxygen storage
19. Tool/repair house
20. Hose house
21. Gasoline house
22. Diesel tanks
23. Pump house at diesel tanks
24. Brass storage shed
25. Parts storage
26. Air brake shack
27. Bridge & buildings carpenter shop
28. Bridge & buildings paint shop
29. Bridge & buildings lumber shed (w)
30. Bridge & buildings lumber shed (e)
31. Bridge & buildings truck garage
32. Bridge & buildings pipe shop
33. Bridge & buildings hose house
34. Bridge & buildings tool house
35. Bridge & buildings carpentry tool house
36. Bridge & buildings cement shed
37. Bridge & buildings cement shed

BA&P Railway Anaconda Yard index map. From *Butte & Anaconda Revisited*, by Brian Shovers and others, 1991: Montana Bureau of Mines and Geology Special Publication 99, p. 54.



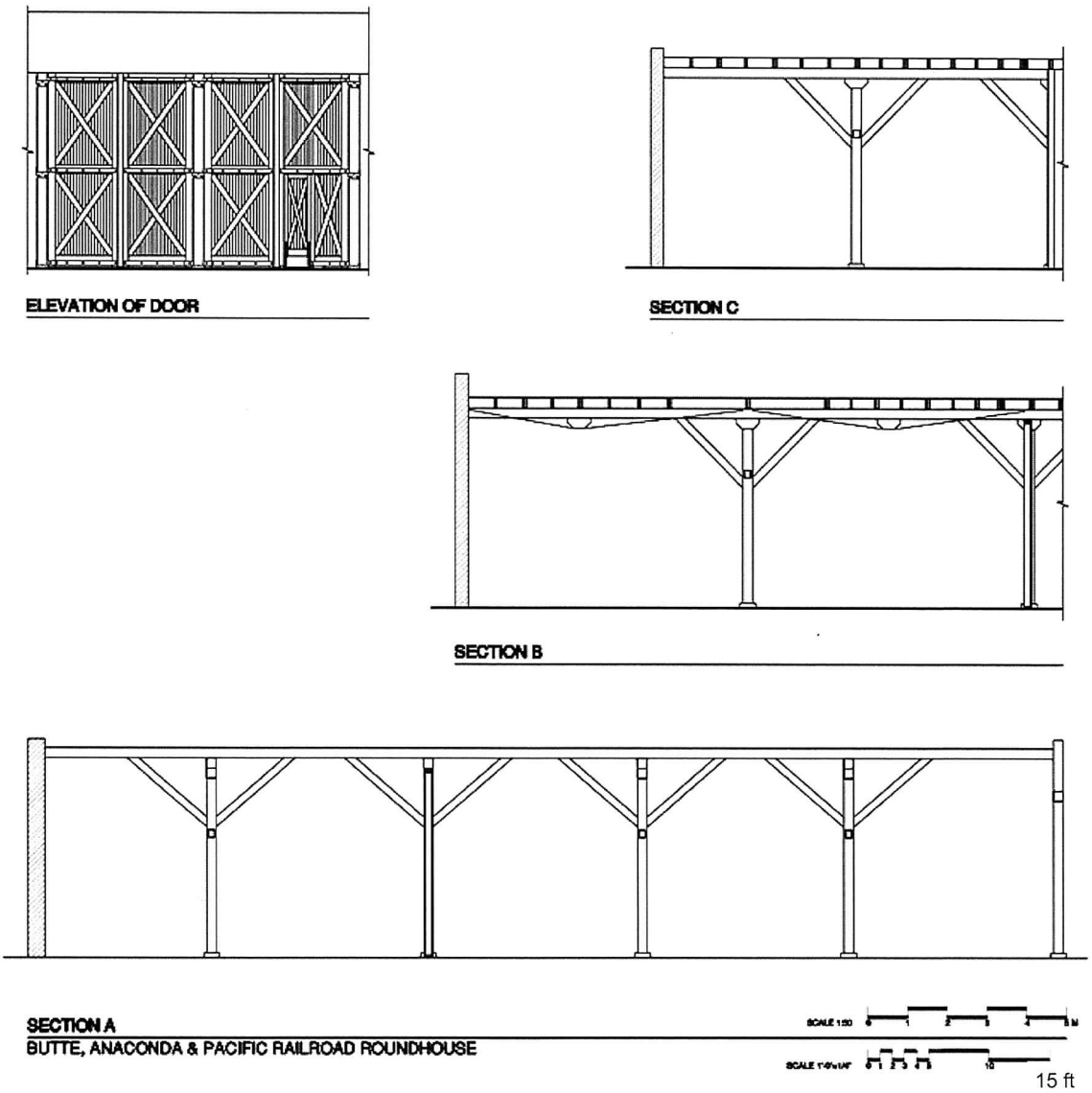
BA&P Anaconda Roundhouse partial floor plan. Fieldwork by Rebecca Sheppard and Stephanie Shaw. Drawing by Elizabeth Durbin.

tional locomotive bays. It has a 145' radius.

The roundhouse has been modified to accommodate a conversion to cheaper and more efficient electric traction (1913) and then to diesel power (1960s). In 1918 and 1924 change rooms were added to the south side of the west section. The west end has also been remodeled as a garage, with openings cut into the end of the west wall.

Turntable and Pit
Architect: Great Northern Railway engineers and Lassig Bridge & Iron Works Co.
Built: 1893

Located immediately in front of the Round House, the 60'-long plate girder turntable supports one set of tracks and ties, and its center pivot is imbedded in a large central granite block. The ends of the turntable have wheels



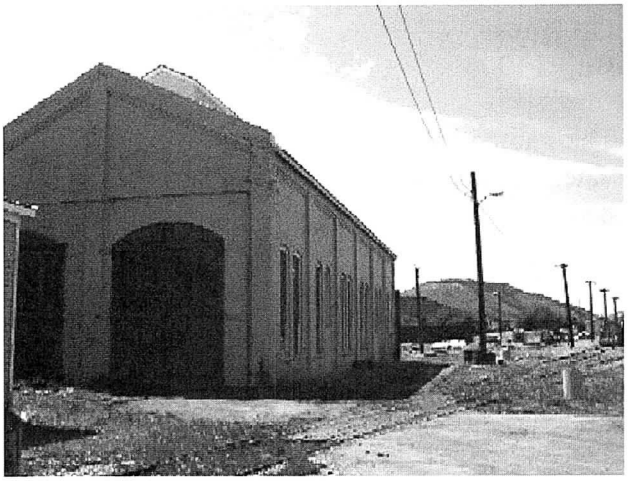
BA&P Anaconda Roundhouse sections. Fieldwork by Anna Blinn Cole and Victoria Walker. Drawing by Elizabeth Durbin.

which ride on a single track around the perimeter of the granite-lined pit. Attached to the side of one end is the wood frame control cab and electric motor which drives the turntable.

Roughly half of the pit lining has been replaced with concrete; however, the turntable still bears the nameplates of the Chicago-based company that fabricated it. The Lassig company built most of the Great Northern Railway's 19th century steel truss bridges in Montana, including the BA&P's only steel truss bridge, an 1897 structure in Silver Bow Canyon.

Machine Shop & Locomotive Repair Shop
Architect: Attributed to Great Northern Railway engineers
Built: 1896; 1907 addition

The original, 80' x 100' portion of this brick building has two side-by-side gables supported by Howe trusses, each surmounted by a monitor roof. The gables define two func-



BA&P Anaconda machine shop. Photo by Richard Gibson.

tional spaces: a machine shop on the south and the locomotive repair shop on the north. Locomotives access the repair shop on rails that extend through the east and west gable ends; these walls have two large segmental arched openings, each with large double doors.

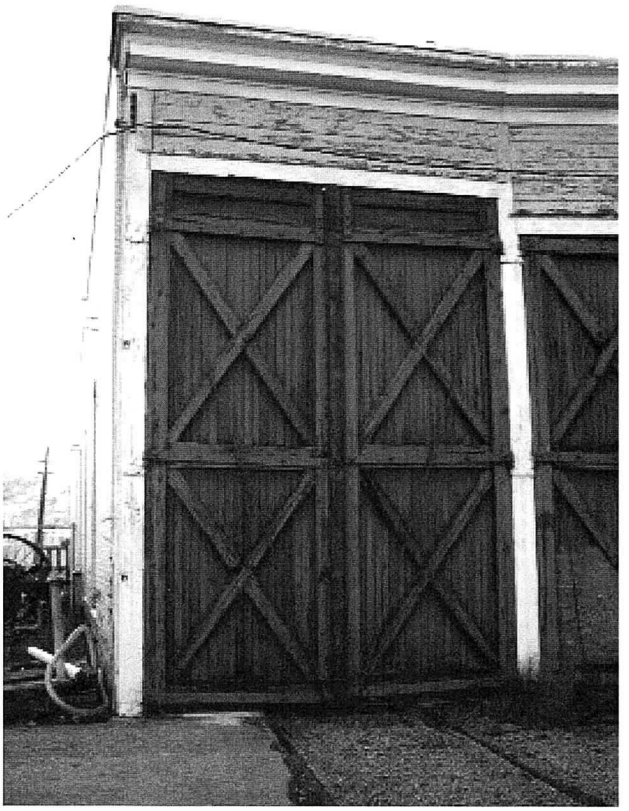
The machine shop has a small brick wing at its west end that was originally the boiler room for the entire West Anaconda Yard complex. A 40' x 90' brick addition to the machine shop's east wall also has a gabled and monitored roof, supported by steel Fink trusses. An overhead track runs the length of the machine shop (both the original and the addition), to serve a 15-ton overhead crane. A 65' x 40' electric shop was added circa 1912-1913 to the 1907 addition.

Blacksmith and Boiler Shop
Architect: Attributed to Great Northern Railway engineers
Built: 1896

The roof of this gabled brick building is supported by timber Howe trusses. The 50' x 100' building has an internal brick fire wall, and externally the division of space is indicated by a pair of cupolas, one over each shop. The boiler shop's cupola contains windows while the blacksmith shop's is equipped with louvers. Locomotives could enter the boiler shop via tracks that enter the building on the west end, which has two large segmental arched openings, now infilled. When the BA&P disposed of its few remaining steam engines in favor of diesels, this building became obsolete.

Store House and Office
Architect: Attributed to Great Northern Railway engineers
Built: 1900, 1914, 1957

The first two sections of the gabled store house and office, comprising the east end of the building, are almost identical in construction. The 1900 section measures 84' x 50' and contains the yard office, which has been re-



Door detail, BA&P Anaconda Roundhouse. Photo by Rebecca Sheppard.

modeled. The 1914 addition is 55' x 50' and is used for storage. Both have timber post and beam construction, timber Howe trusses to support the roof, and lapped siding. The entire structure is supported by treated timber blocks on grade, and there is a timber loading dock on the south, east and north sides. A 1957 steel storage addition extended the building west another 80 feet. It has a shallower gable roof, and is comprised of bar-joist structural members and corrugated steel siding.

Acetylene Welding Machine Building
Built: 1925

This frame building with a shed roof is attached to the north side of the blacksmith and boiler shop and has triple-hung sash windows. It stored acetylene gas for welding torches.

Shops Toilet
Built: 1909

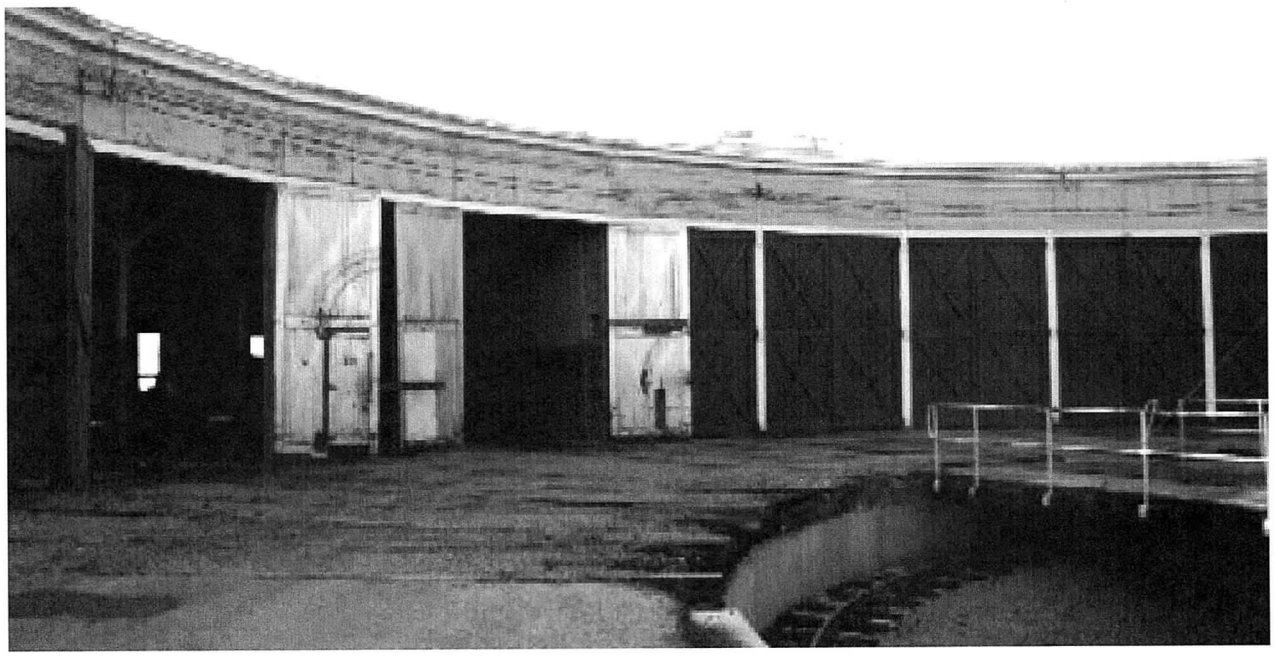
The utilitarian gabled brick building was built along the southwest side of the roundhouse, and contains toilets, urinals and sinks.

Oil House
Built: 1906

The gabled brick structure has an interior elevated floor, which allows oil to be stored in below-ground oil tanks. Stairs are located on the north side. The oil house contains apparatus used to clean and re-oil textile materials used to oil bearings.

Wrecking Crane House
Built: 1910

The wrecking crane house has two gabled sections built end-to-end. The taller 20' x 60' section on the west end was used to house the wrecking crane. It has large double wood doors at the west end. The 16' x 45' section houses offices on the east end and was built shortly after 1910. The wrecking crane was used for repair and maintenance purposes and was pulled along by engines.



BA&P Anaconda Roundhouse. Photo by Rebecca Sheppard.

Sand House and Drier
Built: 1893

This modest brick building performed an important role in railroad operations, storing sand necessary as traction material for locomotives. The locomotives stored sand in compartments so that, in poor weather conditions, engineers could mechanically dump the gritty material underneath the drive wheels. It still houses the apparatus for drying sand, which made it easier to pour.

Coal Dock
Built: 1893

The coal dock is a ramp supported by a timber bent trestle which carried coal cars up over the coal bins. The remaining trestle is intact but the coal bins have been removed and replaced by a wood frame sand bin, following the BA&P's discontinuation of coal-fired steam locomotive use in the 1910s. Original plans indicate that the trestle was several sections longer at its east end.

Paint Shop
Built: 1911

The brick, gabled paint shop is located near the north end of the roundhouse.

Yard Office
Built: prior to 1940

The construction date for this small frame structure is unknown. The design is similar to other BA&P houses along the railway's right-of-way, and it is possible that it was moved here. The yard office has a gable roof and shed roof addition, and the original novelty siding is intact. The interior office spaces were remodeled in recent years.

Acetylene Generator Building
Built: 1918

The wood frame structure has corrugated steel siding and a shed roof. There is a set of centrally-located double doors on the north wall. It sheltered acetylene gas generators.

Acetylene and Oxygen Storage House
Built: 1930

Just west of the locomotive and machine shops and near the acetylene gas generator house stands this small frame structure. It has shiplap siding, a shed roof and a loading dock on its north side.

Tool/Repair House
Built: ca. 1918

The frame tool/repair house has corrugated steel siding and a gable roof. It stands southwest of the roundhouse and adjacent to Track #138. Its Craftsman style roof brackets suggest that it was probably built during the World War I era.

Hose House
Built: prior to 1903

The small frame hose house has a shed roof and beveled edge, shiplap siding. It is located northeast of the storehouse building, but may have been moved from a location further south.

Gasoline House
Built: ca. 1922

Gasoline for the BA&P automobiles was stored in this small frame structure. It has an "L" plan and was built in two stages. The larger, original section on the southwest has a gabled roof, while the smaller addition to the northeast has a shed roof.

ANACONDA'S NAME

First a mine, then a copper vein, then a company, then a town. Irish prospector Michael Hickey named his mine on the Butte Hill, probably in late 1875, because he was struck by a phrase in a Civil War era newspaper. Horace Greeley wrote in the New York *Tribune* that Grant's army was "encircling Lee's forces like a giant anaconda." The name became even more appropriate as the Anaconda Company grew to become one of the 10 largest corporations in America—and tightened its grip on Butte, her workers, and the company's namesake town. For decades, the Anaconda's constrictor-like hold on the entire state led to Montana being called a "corporate colony" of the Company.

—Richard Gibson

Diesel Tanks
Built: between 1957-1967

These are two horizontal cylindrical tanks supported on elevated concrete cradles. The held fuel for the new diesel locomotives, first used in the 1950s.

Pump House at Diesel Tanks
Built: between 1957-1967

The pump house is a steel structure with a gable roof. It houses pumping equipment for the adjacent diesel tanks.

Brass Storage Shed
Built: ca. 1900

While the construction date for this gabled frame shed is unknown, it resembles others built by the BA&P during the early part of the 20th century. Brass parts for locomotives and other rolling stock were kept here.

Storage Parts Structure
Built: ca. 1900

This gabled roof structure has a series of racks used for storage of long materials such as lumber or pipe. It appears to date from the early part of the 20th century.

Dawson Substation
Built: ca. 1957

In the late 1950s the BA&P added a substation to its system at Dawson, east of Silver Bow Canyon. The substation contained electrical apparatus such as power poles and catenary wires. In 1976, long after the BA&P had discontinued its electrification, they moved this gabled steel building to the west Anaconda yard.

Bridges & Buildings Carpenter Shop
Built: 1930

The frame building with novelty siding, a gabled roof, and a loading dock along its south side replaced an earlier building that had burned. There is a shed roof addition on the east side.

Bridges & Buildings Paint Shop
Built: 1925

The paint shop is a frame building with lapped siding and a hipped roof.

Bridges & Buildings Lumber Sheds (2)
Built: 1930

Near the carpenter shop on the north side of the west Anaconda yard are two lumber sheds which face each other. Each is timber frame with a shed roof. The west shed has board and batten siding while the east shed has vertical board siding.

Bridges & Buildings Truck Garage
Built: 1938

This frame building with board and batten siding and a shed roof is across the yard from the roundhouse and shops.

Bridges & Buildings Pipe Shop
Built: unknown

This frame shed has shiplap siding and a shed roof.

Bridges & Buildings Fire House
Built: 1900

The fire house is a small frame structure with a shed roof. It is part of the fire suppression system at the west Anaconda yard. It is similar to sheds found on the south side of the yard near the roundhouse and shops, and at other BA&P complexes.

Bridges & Buildings Tool Houses (2)
Built: ca. 1930

The construction date for these two frame tool houses is unknown; however, when the BA&P erected a carpenter shop at the yard in 1930, it is known that two small sheds were built for tool storage. The structure to the north has shiplap siding and a shed roof while the smaller structure immediately south has board and batten siding.

Bridges & Buildings Cement Sheds (2)
Built: unknown

In the Bridges & Buildings complex are two sheds used to store cement. They share a plank loading platform. The cement shed on the west side has a gable roof and lapped siding. The smaller frame structure immediately east is clad in shiplap siding and has a shed roof.

Bridges & Buildings Shed #1
Built: unknown

Shed #1 served as an ancillary structure for the Bridges & Buildings operations, and may have served as tool or parts storage. It is frame with lapped siding and a shed roof.

Bridges & Buildings Shed #2
Built: unknown

Shed #2 is a frame building structure with board and batten siding and a shed roof.



The last surviving BA&P electrical engine is not in Anaconda, but at the Anselmo Mine yard in Butte. It is owned by the World Museum of Mining, and was built in 1914 and retired in 1968. Photo by Richard Gibson.

ANACONDA SADDLE CLUB

The Anaconda Saddle Club is a horse boarding facility located about five miles west of Anaconda on Montana Highway 1. Following establishment of the non-profit saddle club in 1944, members purchased a narrow strip of about 30 acres in the area known as "the West Valley." Within weeks of the purchase, the 160 saddle club members cleared the fields and served as construction crews. Martin "Abe" Nelson designed plans for the facility, Anaconda residents Jack Carraher, Clarence Weis and Stuart Ainsley drew plans for the horse barns, and in a tradition that continues today, members purchased construction materials. Deer Lodge County provided trucks and laborers to help complete the race and exercise track, now the site of the rodeo area. The club volunteers continued to develop the property through the 1950s. The Anaconda Saddle Club is the only complex of its kind in the Anaconda-Deer Lodge area and the largest in the state. The facilities continue to serve their historic role, as a site for rodeos and related social functions.

—Dena Sanford

11. Anaconda Saddle Club
West of Anaconda

All Anaconda Saddle Club descriptions by Dena Sanford

Clubhouse
Built: 1945

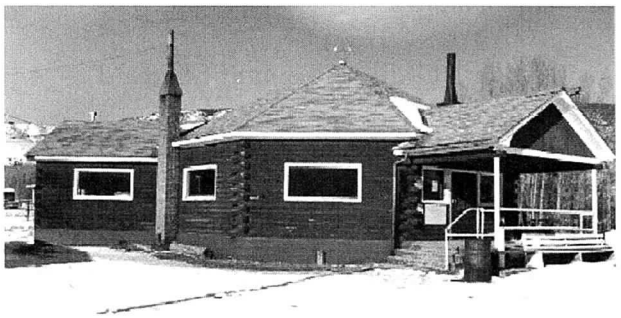
The one-story octagonal clubhouse has a main body consisting of square-hewn, slightly rounded logs that sit on a concrete wall foundation. The east wall originally included a wood frame porch, which was replaced with a gabled porch in 1960. Handrails are made of boiler tubing, and metal cutouts reading "ASC 1944" are affixed on the front railings. The southwest and northwest walls each have a one-story gabled wing.

Caretaker's Residence and Garage
Built: 1945-1946

The pyramidal hip roofed, one-story log house is located south of the clubhouse. With the exception of its modern metal roofing, the historic materials are intact. It has an attached, gable roof front porch on the east side. The rear (west) wall retains its centered, gabled roofed porch although it has been enclosed with windows. The associated log garage has a hipped roof, and retains its original vertical wood plank paired doors on the east side. The doors feature original, vintage iron strap hinges, although modern steel hinges have been attached to the north side door, allowing the door to open wider than the original opening. Another wood plank door is on the west wall.

Horse Barns (5)
Designers: Jack Carraher, Clarence Weis, Stuart Ainsley
Built: 1945-1947

Of the eight barns on site, five one-story structures date to the historic period and are nearly identical, including their shed roofs. The first and largest barn (Barn #1) is located on the north edge of the facility, east of the clubhouse. Barn #1 has a concrete foundation, original wood shingle siding and corrugated metal roofing. The 260-foot-long structure has



Octagonal clubhouse at Anaconda Saddle Club. Photo by Allan Mathews, December 2004, from National Register nomination form.

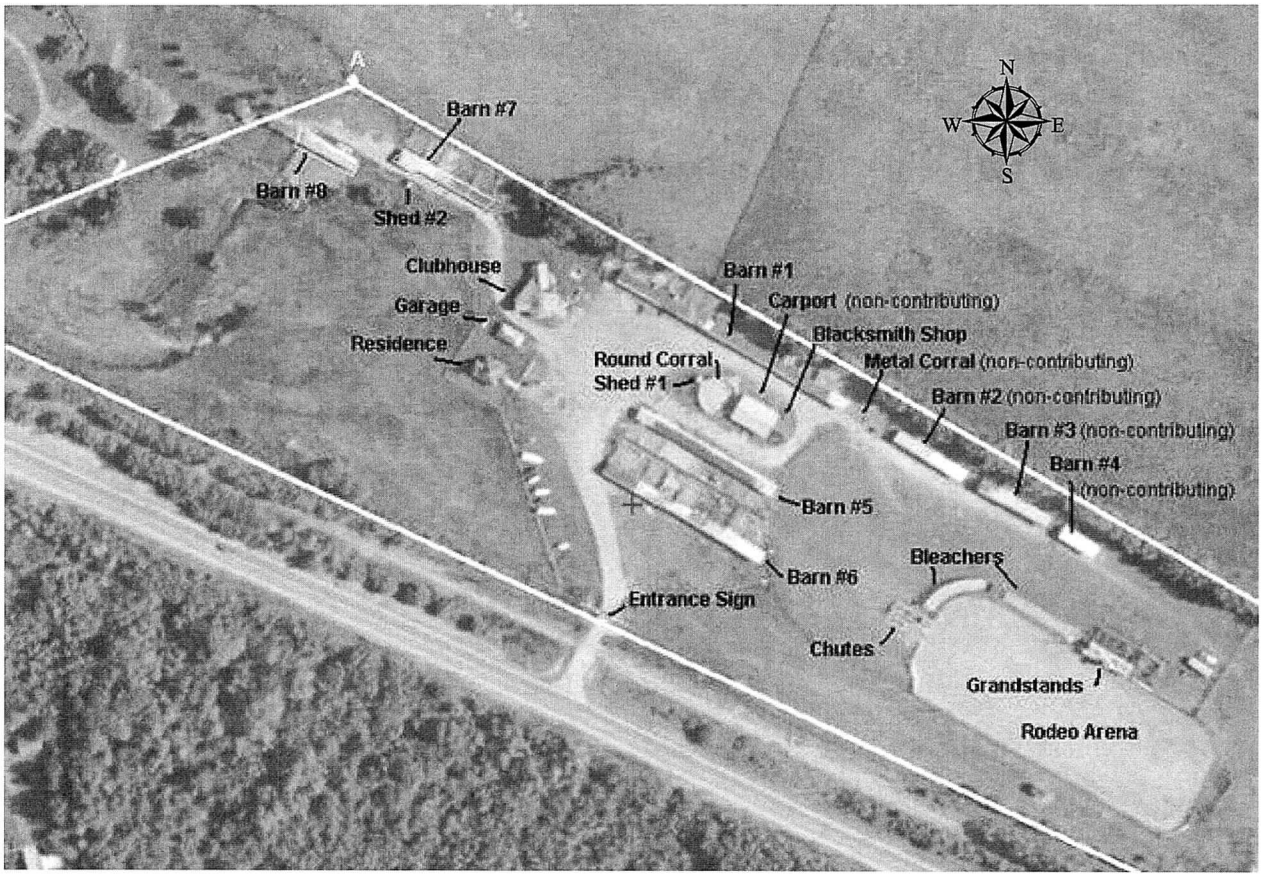
eight stalls with additional hay storage space. Each stall retains a Dutch-type door with raised, cross-braced panels and a two-light window. The other barns are of identical design, with varying lengths and numbers of stalls. By 1947 Barns # 5 and #6 were completed south of Barn #1, with stalls that open to a small run surrounded by post and pole fencing. Barns # 7 and #8, located west of the clubhouse at the northwest corner of the property, were also built by 1947. Barns #2, #3 and #4, while of a later period, are of a design sympathetic to their historic predecessors.

Blacksmith Shop
Built: 1945

The log blacksmith shop was the first club building completed. It served as the temporary headquarters and clubhouse until the main clubhouse was finished. It is a one-story, gable roof building located south of the east end of Barn #1. The shop has a wood plank floor, weatherboard siding, cornerboards and a corrugated metal roof. Shingle siding covers the gable ends. A modern, pole frame open carport and hay storage facility is immediately west of the shop.

Round Corral
Built: 1949

The corral is located east of the caretaker's house, and was refurbished in 1959. Round-cut wood post and plank rails form the fence and gates.



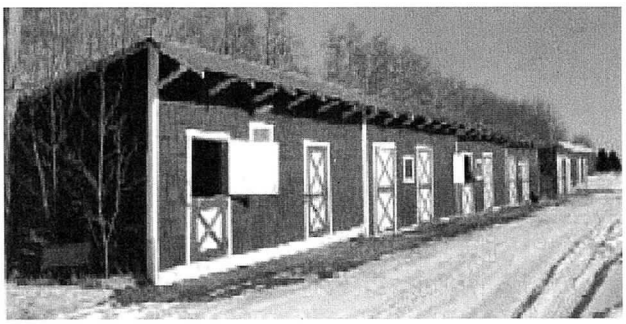
Aerial photo of Anaconda Saddle Club, June 7, 2004, from National Register nomination form. Annotations by Kate Hampton.

Entrance Sign
Built: 1945-1946

The entrance to the club is just off Highway 1 at the southwest end of the property, and directs traffic directly toward the developed area. A cast metal entrance archway with metal letters form the words "Anaconda Saddle Club," and is supported on wood posts. A metal figure of a horse is affixed to the top of the arch. A cattle guard extends between the posts.

Rodeo Arena, Grandstand, Buck/Calf Chutes
Built: 1945, 1948-1949

A three-eighths-mile oval racetrack and associated corrals and bucking chutes were one of the first projects on the site. In 1958 the track was converted into a rodeo arena. The modernization included the addition of outdoor lighting and structural reinforcement of chutes, pens, arena fencing and gates, using boiler tubing and metal plates. The grandstand was moved from the south side of the track the same year. An elevated announcer's booth is located near the center of the grandstand.



Barn #3 at Anaconda Saddle Club. Photo by Allan Mathews, December 2004, from National Register nomination form.

FLUME TRESTLE

About 15 miles west of Anaconda, between Georgetown Lake and the intersection with Highway 38, on the left side of the road, is a complex trestle erected to support a flume system. Water flowed from the lake downstream to a one-megawatt power plant with Pelton wheel generators. Pelton wheels, invented in the 1870s, are used in low-flow, high-head circumstances. The flume passed through at least two tunnels, over a suspension bridge constructed to accommodate a washed-out trestle section, and through a 700-foot drop to a penstock at the power plant, located near the present-day Flint Creek Campground. The Granite-Bimetallic Consolidated Mining Company built the facility to serve the mines at Granite in 1900.

The flume is actually a wooden pipe, made from redwood and constructed board by board in a spiral pattern, rather than in sections that were later connected.

—Richard Gibson & Ted Antonioli



Pipe and trestle along Flint Creek, Montana Highway 1, near Georgetown Lake. Photo by Richard Gibson.

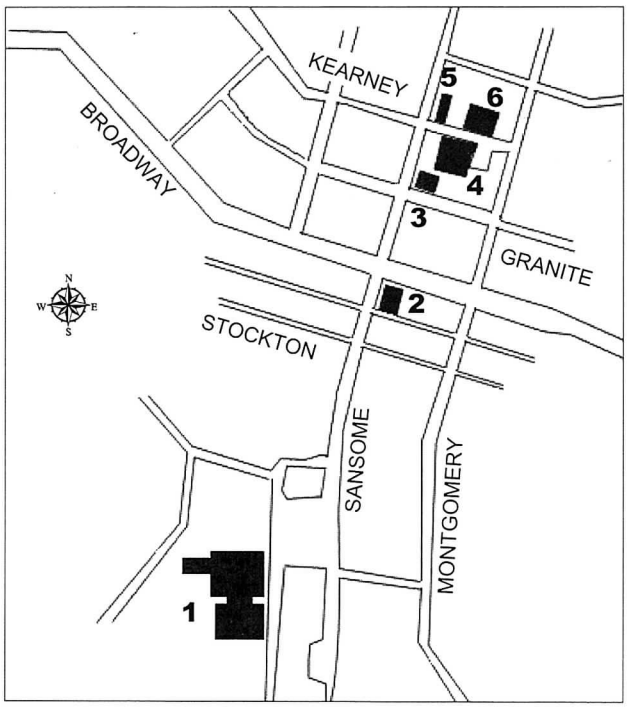
PHILIPSBURG

Although placer gold drew the first prospectors to Philipsburg, it was the silver of Granite, four miles up the hill, and other nearby mines that made Philipsburg prominent. It is the primary community in one of the largest silver mining districts in the world.

County seat of Granite County, Philipsburg was settled in 1866 and laid out as a town in 1867 (incorporated 1890). The name honors Philip Deidesheimer, a mining engineer who was hired by Granite's St. Louis and Montana Mining Company to manage their properties. He is credited with inventing an important system of supports for mines known as square set timbering, and much of his career was spent in the rich Comstock Lode of Nevada. Today's population (about 930) is a third of the peak 3,000, attained in the late 1880s. The Northern Pacific Railroad reached Philipsburg in 1887.

Philipsburg's location out of the mountains and along the railway probably helped it prosper, or at least not die, when boom-and-bust cycles impacted the nearby mines. Although silver was predominant, Philipsburg also was able to benefit from a boom in manganese, produced at the Algonquin and other mines during and after World War I. From 1900-1920, the Philipsburg mines produced 40% of the manganese mined in the entire United States, and the population climbed to about 1,700 by 1920. Today, Philipsburg is one of the best preserved late-19th century mining towns in Montana, with a largely intact and in many cases unaltered built landscape.

—Richard Gibson



Philipsburg sites

1. Philipsburg Grade School
2. McDonald Opera House
3. Patten House
4. Granite County Courthouse
5. St. Andrews Episcopal Church
6. Granite County Jail and cellar

Map by Richard Gibson.

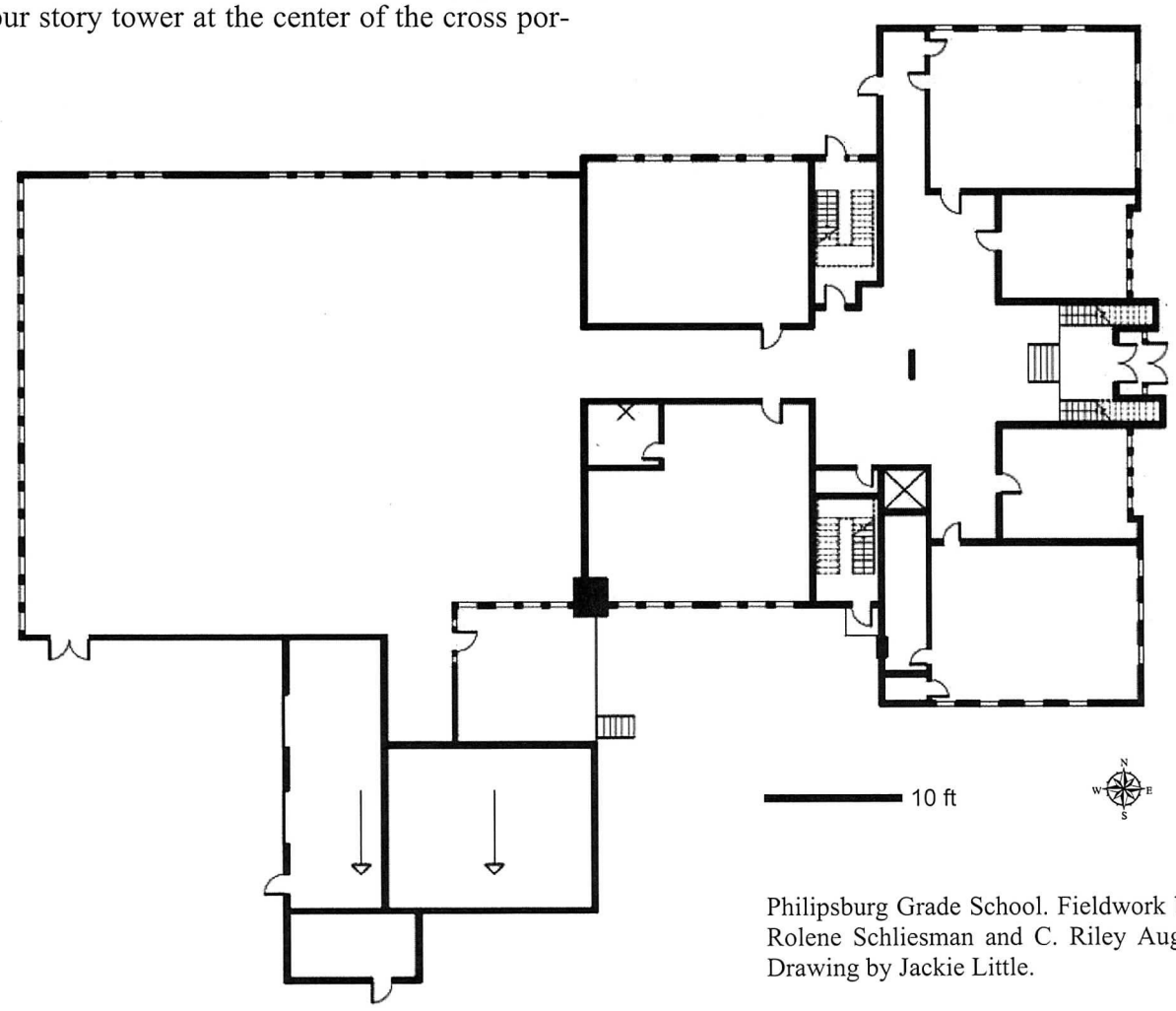
PHILIPSBURG SITES

1. Philipsburg Grade School
407 Schnepel Street
Architect: Bell and Kent
Built: 1894-1896

By the late 19th century Philipsburg had prospered from a silver mining boom town to newly-created Granite County seat. To support the increase in stature and population, local residents passed a $30,000 bond for a new school. Although the school board intended to cap the construction cost at $23,000, the 2½-story Neoclassical style building ultimately surpassed that amount. The T-plan brick school is built upon a heavy granite foundation and features a centrally-placed, four story tower at the center of the cross portion of the T. A large, arched granite entrance is at the base of the tower; flanking it are symmetrical and pedimented classroom wings.

The school served both grade and high school students until a new high school was built in 1912. In 1927 the school district added four additional classrooms and an auditorium to the west (rear) side the building. Newer concrete garages and storage space extend the building further west. It is still actively used for elementary students, and is reported to be the oldest continuously used school building in the state. The roof and bell tower were restored in 2001.

—Dena Sanford



Philipsburg Grade School. Fieldwork by Rolene Schliesman and C. Riley Augé. Drawing by Jackie Little.



Philipsburg Grade School. Photo by Rolene Schliesman.

2. McDonald Opera House
100 Block South Sansome Street
Built: 1891

Built for prominent local businessman Angus A. McDonald, the two-story brick commercial building is also Montana's oldest operating theater. The exterior retains it first floor storefront openings, divided by pitch-faced granite columns. Although many windows have been infilled, the original spatial divisions can be easily discerned. Likewise intact is the impressive pressed metal cornice and pediments on two sides of the building. The opera house was repainted in 2000, picking out ornamental details in the cornice and doors.

The theater is intact, evident from the outside by a metal-clad stage loft that rises a third story at the rear (east end) of the building. Inside, the wood seats and balconies survive, along with five of the six original elaborate backdrops painted at the turn of the century by Montana artist Edgar S. Paxson. Paxson (1852-1919) came to Montana in 1877 from his native New York state, and settled in Deer Lodge in 1879. The backdrops were sold and changed hands several times, until they returned to the Opera House Theater in 1998, on loan from the Granite County Museum.

When Frank Horrigan bought the building in 1919, he renamed it the Granada Theater. The ornate box seating was removed and some interior changes were prompted by the need for better acoustics. A magician's trap door at center stage, however, is still in place. Recent rehabilitation work included reopening the orchestra pit and reconstructing the box seating areas.

—Dena Sanford



McDonald Opera House. Photo by Rolene Schliesman.

3. James Patten Residence
Corner of Granite and Sansome Streets
Built: ca. 1885

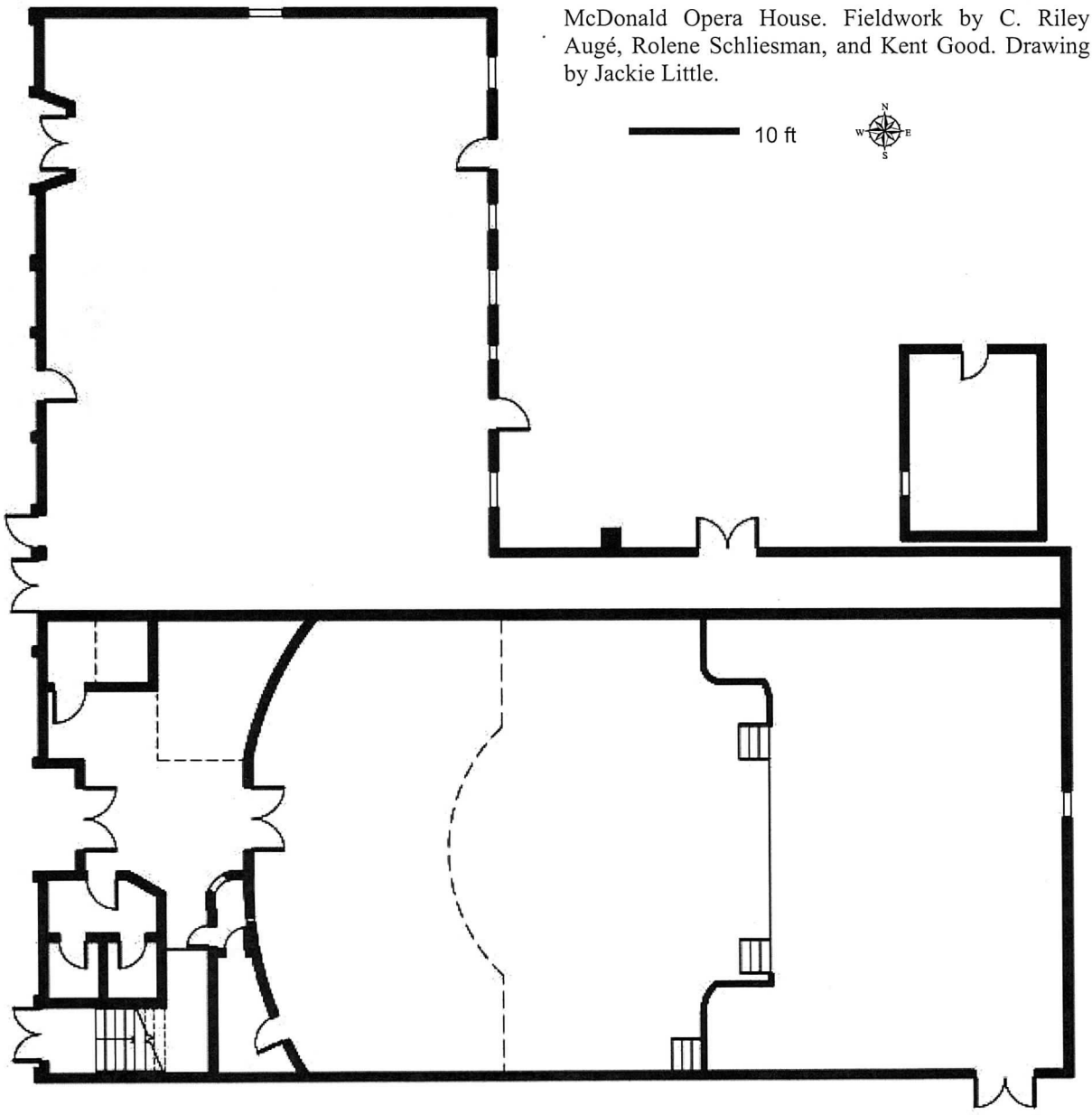
The vernacular brick house with a truncated hip roof has evolved since its construction. The original one-story portion faces south, its entry sheltered by a full-width porch with slender turned columns, bracketed capitals and scrolled frieze and spindled balustrade. A flat roof rear (north) addition contains similar porch details. Off this addition is a newer addition with a shed roof. The property is enclosed by a concrete and random rubble stone retaining wall, and capped with what might be the original wrought iron fence.

Although the house is associated with the long-time occupation of the James Patten family, it was probably built by G.H. Harn. Harn operated a brick yard in town in the 1880s so it is probable that the construction material came from his own business. Patten, a local businessman, came to Philipsburg from Illinois in 1878 and became involved in the operation of the Trout and Sweet Home mines.

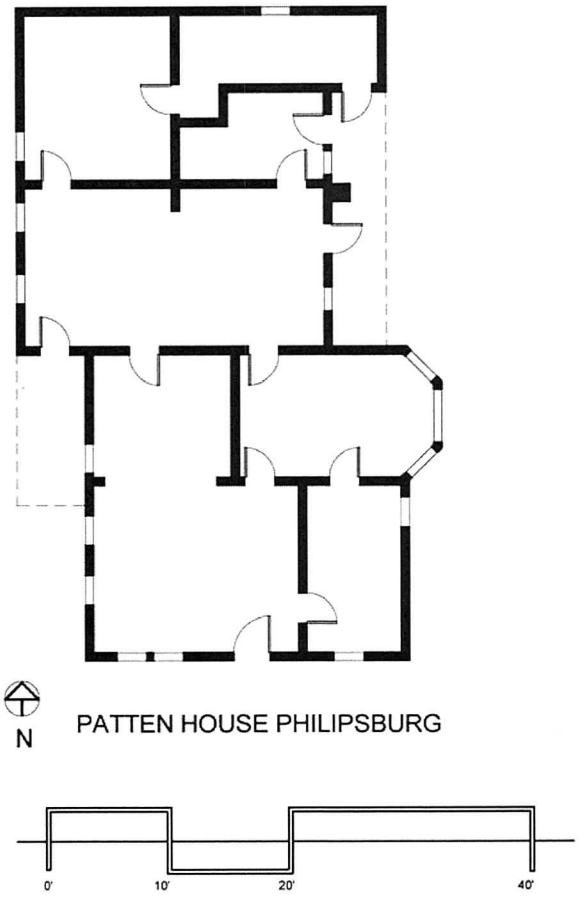
—Dena Sanford



Patten House. Photo by Rolene Schliesman.



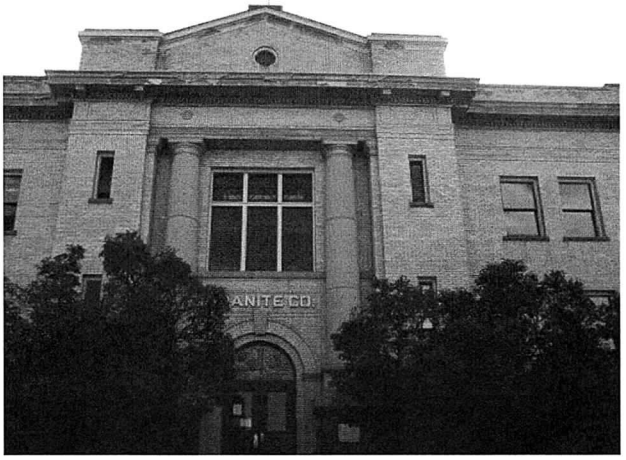
McDonald Opera House. Fieldwork by C. Riley Augé, Rolene Schliesman, and Kent Good. Drawing by Jackie Little.



Patten House. Fieldwork by Rolene Schliesman, C. Riley Augé, and Kent Good. Drawing by Jackie Little.

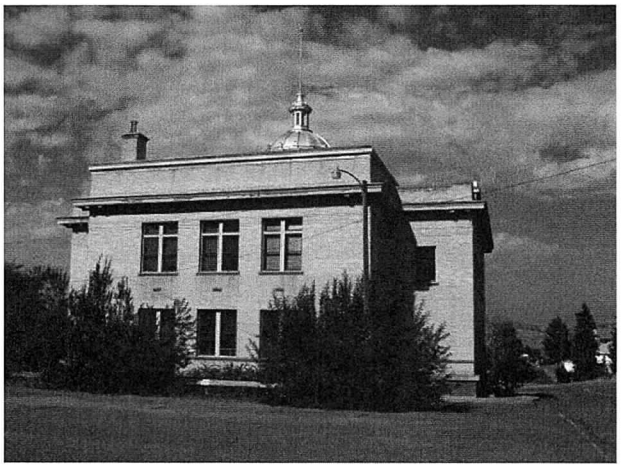
and has a central, shallow dome with a lantern and fenestrated drum. A giant Doric pedimented entrance faces west, and there is a semi-circular transom above the main doors that contains a more recent art glass window. In the plaque above the entry arch are inscribed the words, "Granite Co."

—Dena Sanford

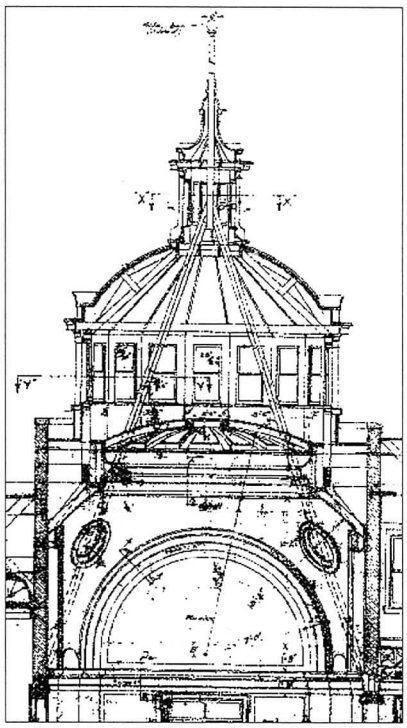


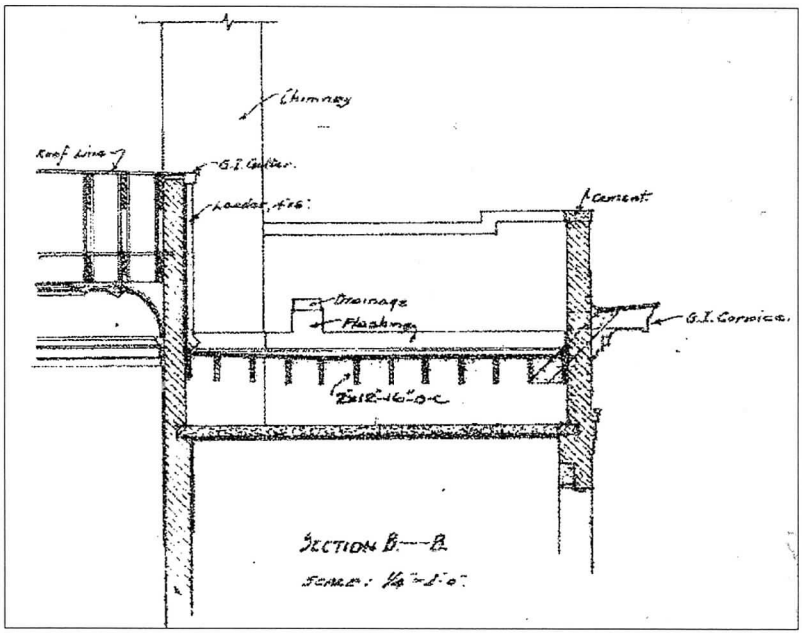
4. Granite County Courthouse
135 Sansome Street
Architect: Haire & Link and Co.
Built: 1912-1913

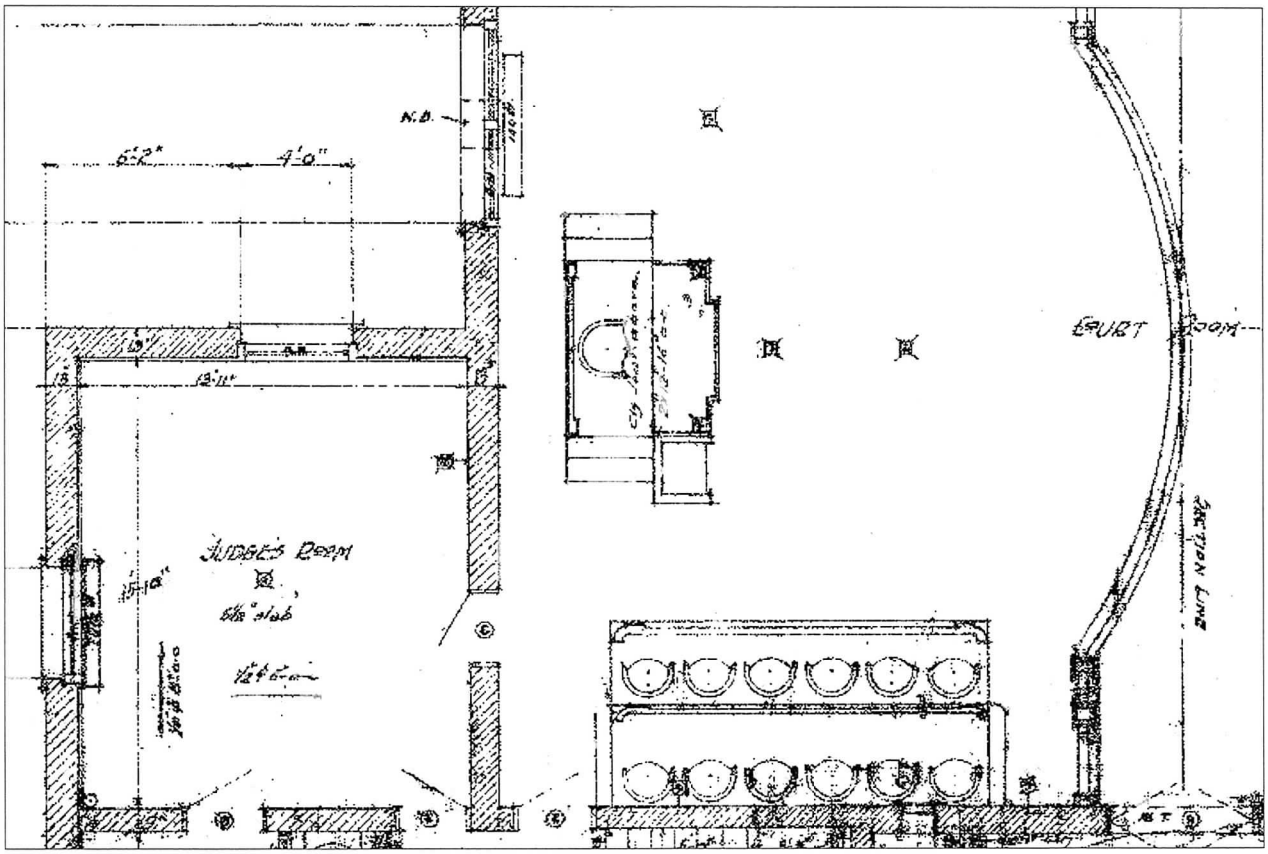
Following the establishment of Granite County in 1893 and Philipsburg as the county seat, county commissioners hired the state's preeminent architectural firm to design this 3½-story Neoclassical style civic building. The Gagnon and Company construction firm undertook the project for $49,000. The ashlar stone courthouse is built of Montana granite



West façade (top) and east façade (bottom) of Granite County Courthouse. Photos by Richard Gibson.







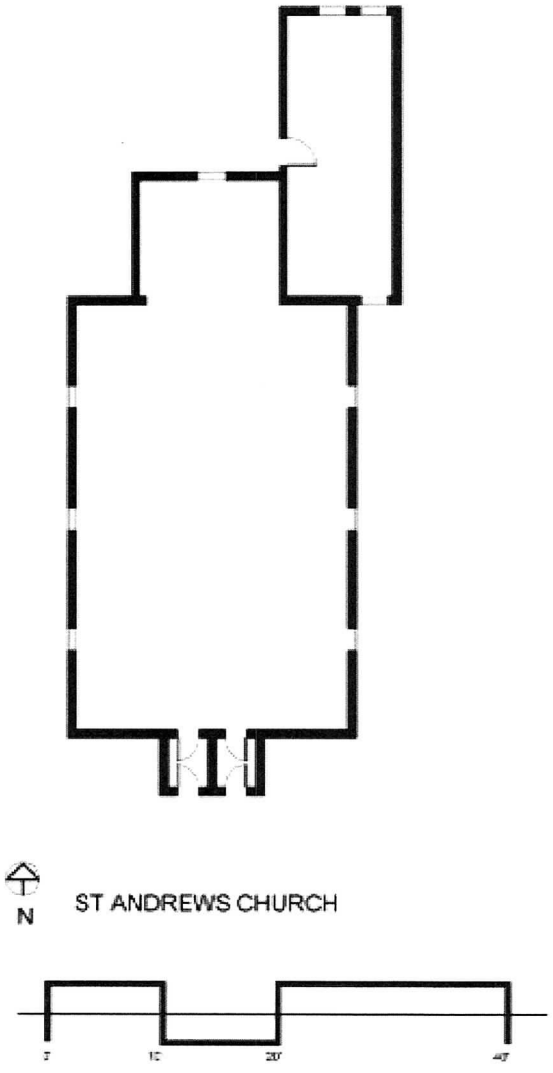
Granite County Courthouse. Portions of Haire & Link's original 1912 blueprints, which have undergone extensive discoloration. Top left, dome elevation. Top right, section through part of attic. Bottom, part of second-floor courtroom with jury box and judge's room. Scans provided by Paul Filicetti.

5. St. Andrew's Episcopal Church
101 East Kearney Street
Architect: unknown
Built: 1888

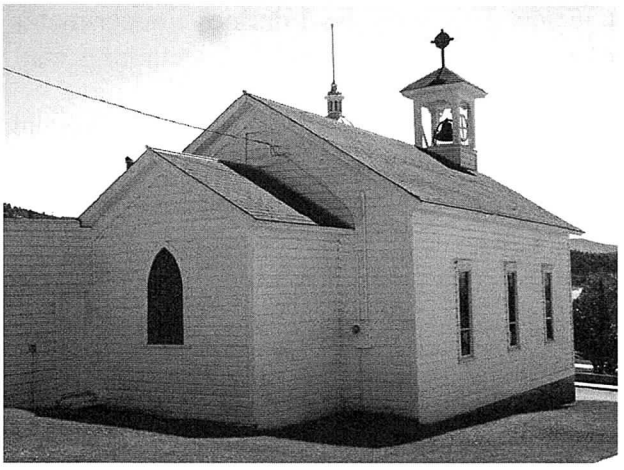
The simple, gabled frame St. Andrew's Episcopal church is typical of ecclesiastical architecture found in Montana's rural towns during the late 19th century. Its basic one-room plan and rectangular shape is accentuated with clapboard siding, a square and open belfry, and a smaller, gabled vestibule with a lancet window above the door. Additional gothic arch stained glass windows accent the east wall. The building is elevated on a stone base, and is accessed by a newel-posted exterior stair.

The Grand Lodge of Montana Masons laid the cornerstone for St. Andrew's. Following its completion in 1889, the building featured the first church steeple in Philipsburg.

—Dena Sanford



St. Andrews Episcopal Church. Fieldwork by Rolene Schliesman, C. Riley Augé, and Kent Good. Drawing by Jackie Little.



St. Andrews Episcopal Church, view from northwest. Photo by Rolene Schliesman.

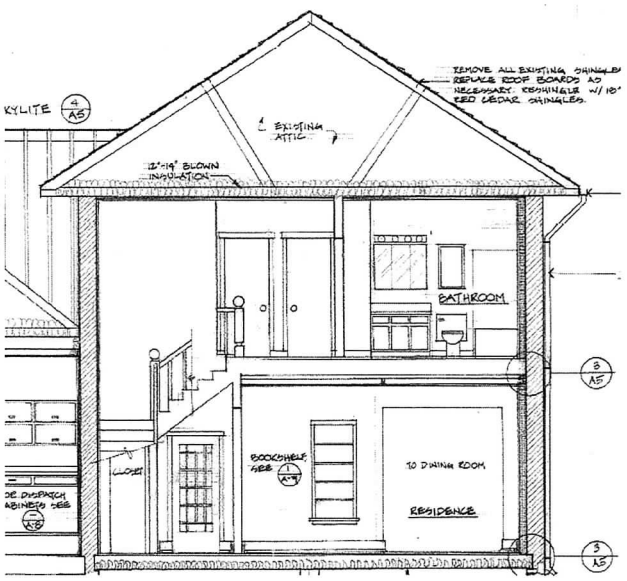
6. Granite County Jail, Sheriff's Office and Residence
East Kearney Street
Architect: Grant S. Williams
Built: 1896

Built at an estimated cost of $8,000, this eclectic combination jail and sheriff's residence was built for Philipsburg in 1896. The brick building is an assemblage of rectangular blocks that vary in height from one to two stories. Numerous interior corbelled chimneys punctuate the rooflines. There are hip roofs on the jail and office and a gable-on-hip roof on the residence. While the gable is accented with a wood cutout sunburst, the focus of the building is the jail entrance on the south fa-

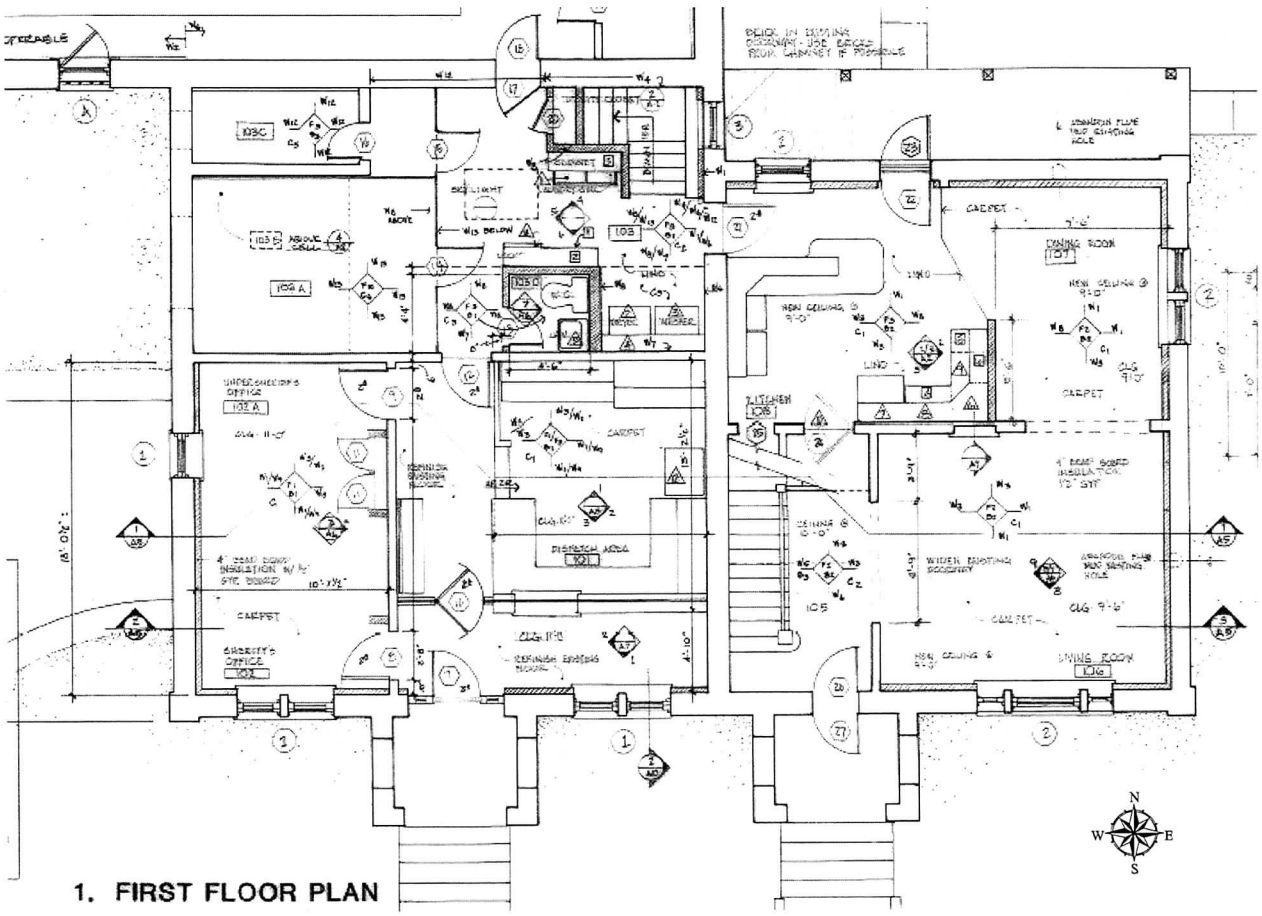
çade. It is set within a square entry tower accentuated with bartizans, a steeply hipped roof with flagpole, and the word "JAIL" carved in a stone panel above an arched entrance. A pedimented, 1-story entry east of the tower accesses the residence. The building was renovated by the early 1980s, and continues to serve as a jail and sheriff's office.

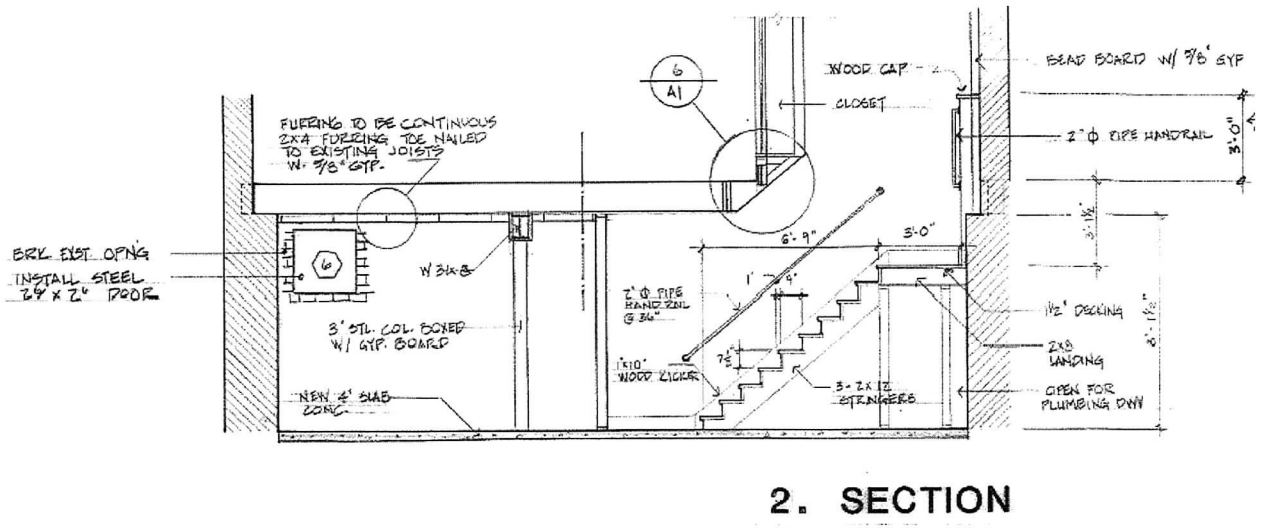
To the east across the parking lot is a root cellar, faced on the west side with a stone wall of pitch-faced granite laid in random rubble courses. This same wall defines the perimeter of the property and serves as a retaining wall for the lawn surrounding the jail .

—Dena Sanford

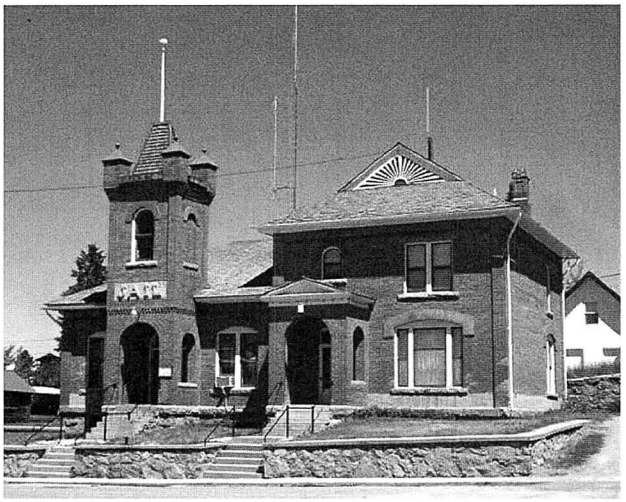


Granite County Jail and Sheriff's Residence. Section (above) and part of first floor (below). Drawings by James R. McDonald (1980), provided by Paul Filicetti, A&E Architects.

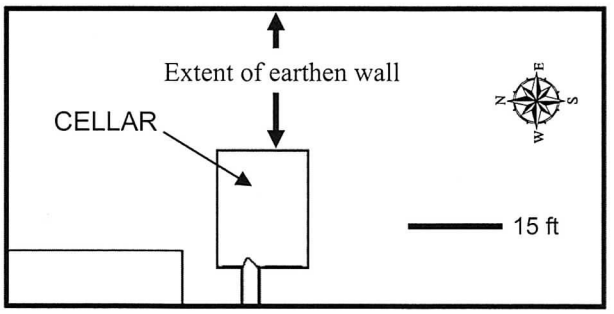


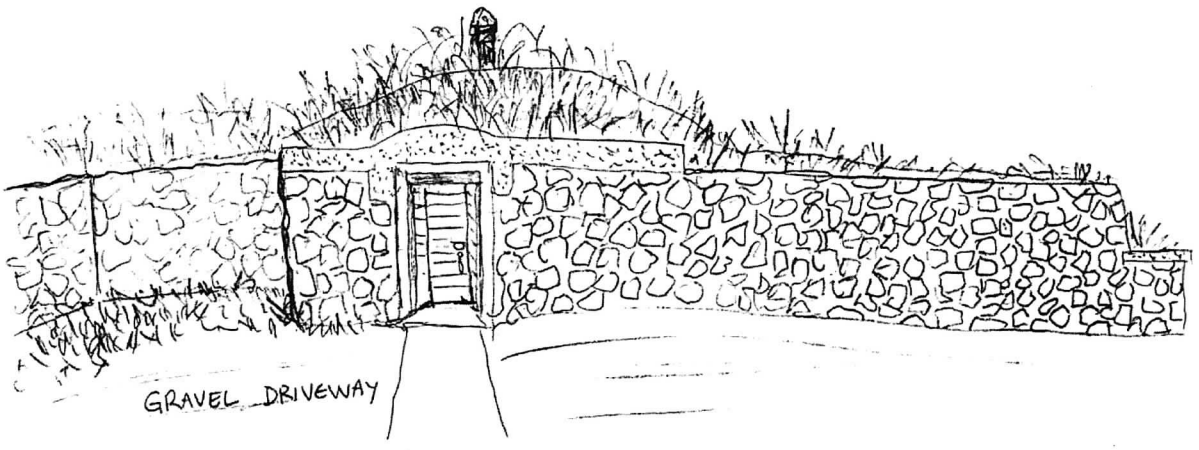


Granite County Jail and Sheriff's Residence. Above, partial section through basement. Drawing by James R. McDonald (1980), provided by Paul Filicetti, A&E Architects.



Granite County Jail and Sheriff's Residence. Photo (left) by Rolene Schliesman. Earthen cellar west elevation sketch (bottom) by C. Riley Augé. Cellar fieldwork (below) by Rolene Schliesman and C. Riley Augé; drawing by Richard Gibson.



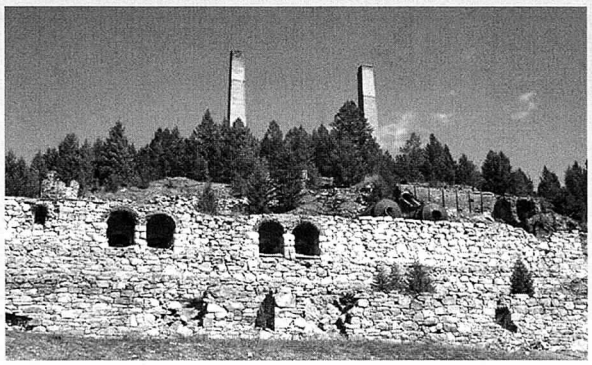


GRANITE

The first silver discovery near what became Granite was in 1865, but not until 1882, with $130,000 backing by St. Louis investors, was the greatest silver bonanza found and the town really began. By 1889, Granite's mines were producing more than $250,000 in metals—mostly silver—each month. The population of "Montana's Silver Queen" grew to about 3,000 by 1890, with an estimated equal number residing in the vicinity. A miner's union was formed in 1888, 10 years after the first union formed in Butte. The town boasted a library, 18 saloons, brothels, a hospital, school, four churches, a local newspaper, and its own Chinatown.

Repeal of the Sherman Silver Purchase Act in 1893 brought about a crash in silver prices, and the population fell within a year to under 150. Occasional rejuvenations over time brought influxes of small numbers of residents, but Granite never regained its late 1880s glory. The most important reactivation was from 1898-1904, when the combined Granite Mountain and Bi-Metallic Mines produced $1,000,000 per year—sums to add to the 1883-1898 estimated total of nearly $30,000,000, mostly in silver. Most mining operations had ceased by about 1912, though sporadic attempts to mine the lodes continued until 1958, when most of the Bi-Metallic Mine buildings burned. The last sole resident died about 1969, and today the site is a Montana State Park.

Much of the ore from the Bi-Metallic Mine was milled downhill, two miles southeast of Philipsburg at the 100-stamp Bi-Metallic Mill, built in 1889-1890. Remnants of the cable-rigged tramway that carried the ore are visible along the road up to Granite. When it was built in 1889, this was the longest aerial tramway in the United States, at 9,750 feet long and with a vertical drop of 1,225 feet.



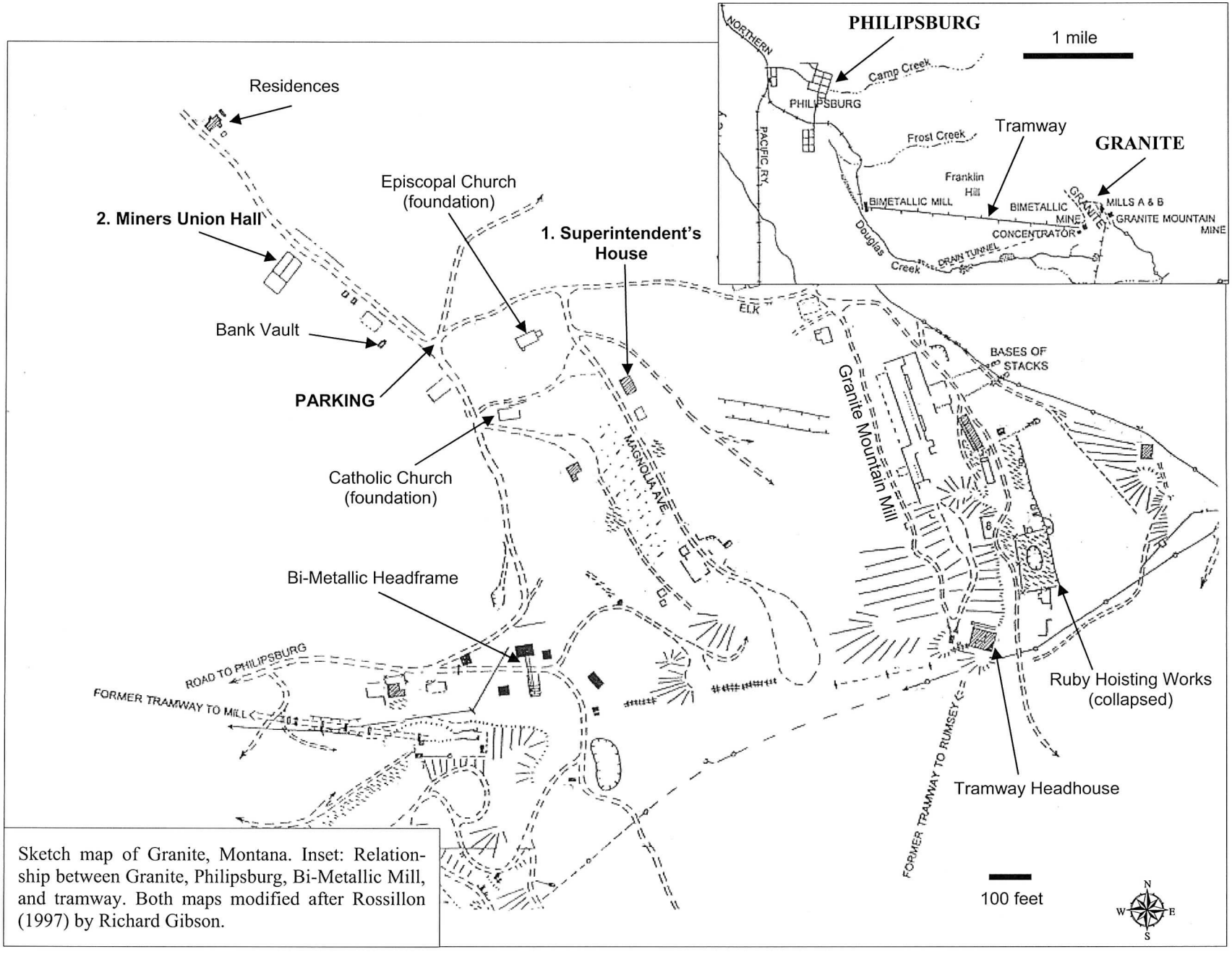
Bi-Metallic Mill, near Philipsburg. Photo by Rolene Schliesman.

Georgetown Dam, built in 1899-1901, was constructed to provide power for the Bi-Metallic Mill and the Granite Mine. Today the lake is an important recreation area and expensive summer homes line its shores.

Fortunes based on Granite's silver mines financed significant construction in St. Louis, Missouri, home to the original major backers of the mines. Merchant's Bridge (1889), Planters Hotel (1894), Terminal Railway of St. Louis (1889), and the St. Louis Bank of Commerce (1890s) all are rooted in the wealth generated by Granite's silver.

Reference: Rossillon, Mitzi, 1997, Granite: A cultural resource inventory and evaluation: Report for Mine Waste Cleanup Bureau, Montana Dept. of Environmental Quality, 60 p. + appendices.

—Richard Gibson



Sketch map of Granite, Montana. Inset: Relationship between Granite, Philipsburg, Bi-Metallic Mill, and tramway. Both maps modified after Rossillon (1997) by Richard Gibson.

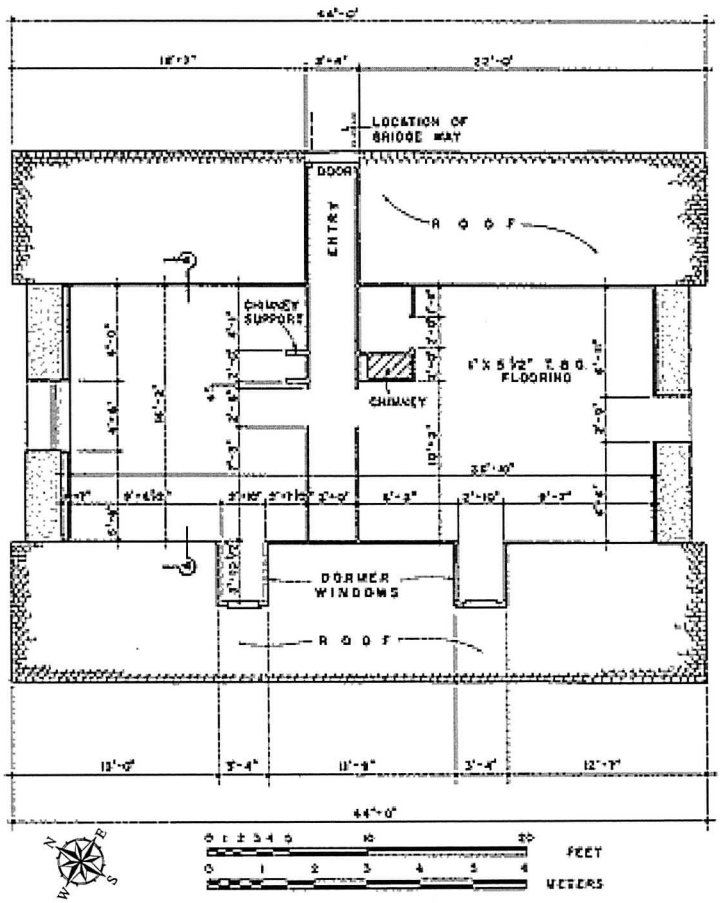
1. Superintendent Thomas A. Weir's House
Magnolia Avenue
Built: ca. 1885

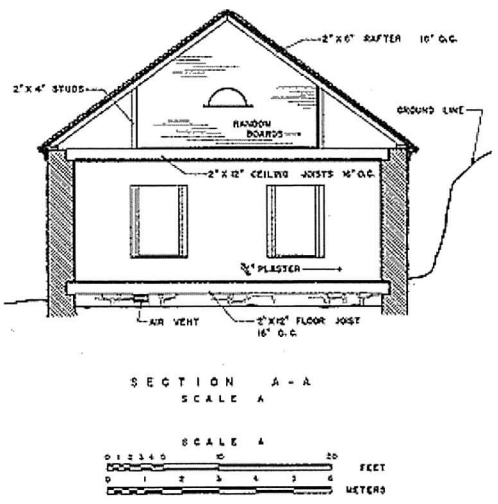
In 1889, the zenith of Granite's silver mining boom, this building was reportedly the sole stone structure in town, and the only one with a plaster-finished interior. Such extravagance was granted the superintendent for the Granite Mountain Mining Company. Weir's neighbors along Magnolia Avenue were other mining officials, white collar workers and their families. Reflecting their elevated status in the community, the street was referred to as "silk stocking road." The company operated until the economic Panic of 1893 shut down operations.

The 1½-story house is built of locally-quarried granite and has a steeply pitched roof and dormers. While the windows are now gone, the openings are detailed with brick arches and there is a half-circle window on the north gable end. The 32' x 42' building provided living space on the first floor and possibly an office on the second floor. The first-floor rooms include a living room, bedroom, kitchen and dining room. The rooms are separated by a plastered brick food vault. The only access to the second floor was via a bridgeway from the uphill slope at the rear of the building. There is no inside connection between the two floors, nor has there ever been one.

After decades of abandonment, deterioration has taken a toll on the building. Along with the missing windows, a 3' x 7' entry and kitchen doors with overhead transoms are gone. Some recent restoration work addressed some of the problems.

—Dena Sanford





Superintendent's House, Granite, Montana. Second floor plan (left) and section (above). Fieldwork by John DeHaas. Drawings by Jack Oyama, Dick Shannahan, and Durward Sobek. HABS MONT,20-GRANI,2-.



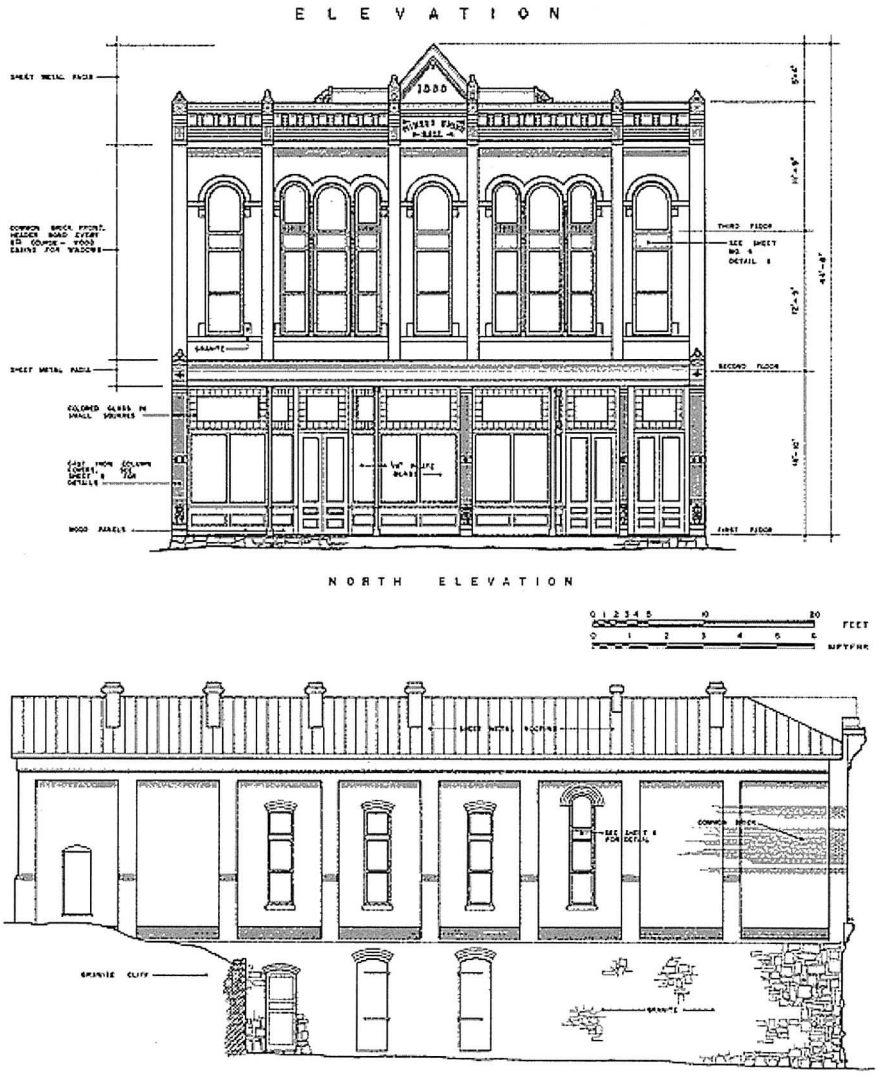
Superintendent's house. Photo by Al Huntsman, 1965, HABS MONT,20-GRANI,2-2.

2. Miner's Union Hall
Main Street

The three-story hall was built in 1890 and dedicated during a grand ball on New Year's Eve, Dec. 31, 1890. J.R. Roberts of Butte designed the building, which cost $23,000. As recently as the 1950s, billiard tables and card tables still occupied the building; in 1969, the front façade and roof of the building remained intact.

The first floor is set into the hillside and consists of a native granite foundation with cast iron front; it contained a lounge and recreation rooms for members. The second story, holding the main hall for meetings, dances, and a stage for theatrical productions, was brick; the hall itself was 44' x 53' and with a ceiling at nearly 19'. The third floor hall (30' x 44') was for lodge and private meetings.

The first floor had windows set in wood frames on the front of the building only. The six large panes of glass were of quarter-inch plate glass, each with a continuous transom above, where small square panels of colored glass framed a single pane of glass.

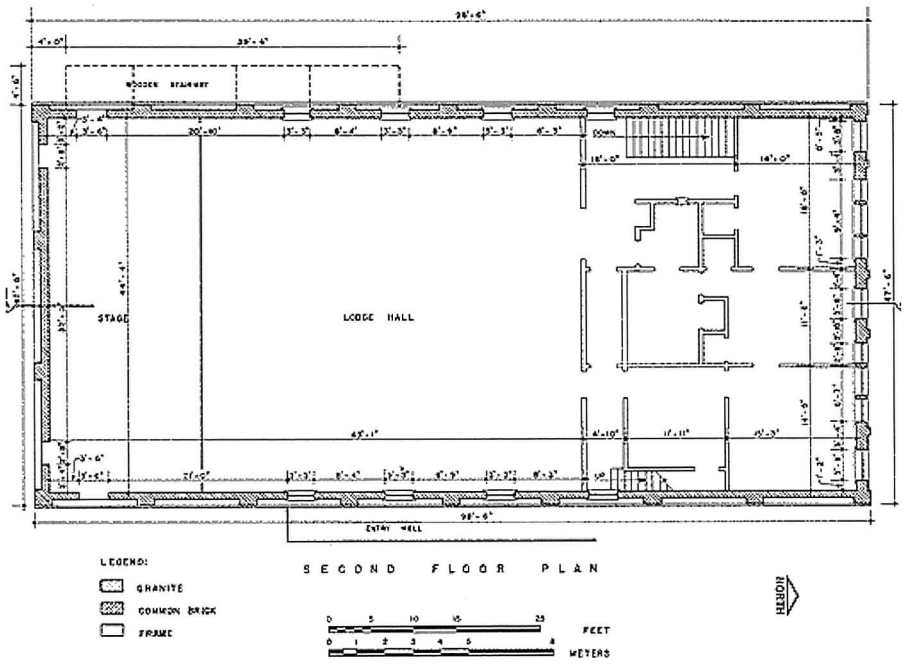


Miners Union Hall, Granite, Montana. North elevation (left, above) and section (left, below). Fieldwork by John DeHaas. Drawings by Durward Sobek. and U. James Blackburn. HABS MONT,20-GRANI,1-.



Maple flooring in the second floor hall was reputed to be the finest "spring floor" in the northwest. Strips 16" apart were added to the sub-floor, then topped with maple to bring resiliency to the dance floor. The east and west side walls each supported five chimneys.

—Richard Gibson



Miners Union Hall, Granite, Montana. Second floor plan (left). Fieldwork by John DeHaas. Drawing by Durward Sobek. and U. James Blackburn. HABS MONT,20-GRANI,1-.

Photo (above) by Al Huntsman, 1965, HABS MONT,20-GRANI,2-2.

DEER LODGE

A natural salt lick in the wide valley of the Clark Fork led deer to this area, resulting in a Native American reference to the "lodge of the white-tailed deer." A trading post was established here in 1862 and Deer Lodge City was laid out in 1863. The post office opened in 1866.

Deer Lodge has always been the center of important ranching operations and attendant agricultural activities. Deer Lodge ranchers, including Conrad Kohrs, were among the first to challenge the Anaconda Company's smelter emissions of arsenic and sulfur, pollution that the ranchers argued (correctly, but unsuccessfully) killed both livestock and plants.

Deer Lodge was originally in Deer Lodge County, one of the nine initial counties created by the territorial legislature in 1865. Over time, parts of the county have become or been transferred to Granite, Silver Bow, Lewis and Clark, Flathead, and Powell Counties with the result that today, Anaconda is the seat of Deer Lodge County, and Deer Lodge is the seat of Powell County. Anaconda and Deer Lodge engaged in a minor skirmish in the War of the Copper Kings. Marcus Daly wanted Anaconda to be the seat of a new county named for him, but his nemesis W.A. Clark opposed that. Ultimately the Montana Supreme Court approved a division of the county, leaving the name Deer Lodge for the more populous section around Anaconda.

The historic state prison here predates statehood. It was built in 1871 and was initially under Federal control.

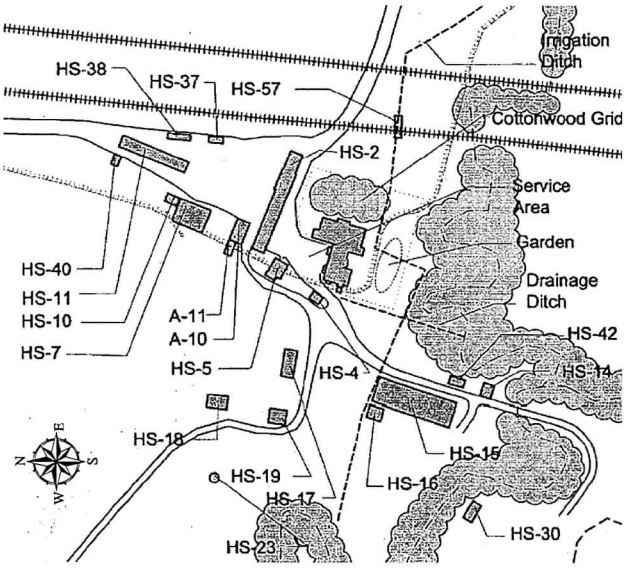
—Richard Gibson

Grant-Kohrs Ranch-Warren Ranch Overview

Source: Grant-Kohrs Ranch/Warren Ranch 2003 NR nomination. This section was written by Dena Sanford. All maps, plans, and drawings in this section are from the National Park Service, Technical Information Center, Lakewood, Colorado. Special thanks to Michelle Schneider for providing these images.

The evolution of the Western cattle industry, from 19th century open-range grazing to 20th century enclosure and diversification, is embodied in the Grant-Kohrs/Warren Ranch in Deer Lodge Valley, a National Historic Site and National Historic Landmark. The ranch has been a representative and harbinger of sweeping change in the Great Plains cattle industry.

When ranch founder and Canadian fur trader John Grant established his cattle enterprise in the Deer Lodge Valley in 1857, he already had years of experience as a Northern Rockies cattleman. Grant, like many other businessmen in this fledgling market, obtained footsore and malnourished stock traveling west with Oregon Territory-bound immigrants. After a season of "fattening up" these animals, Grant sold them to travelers, the military, and (after the discovery of gold in 1862) to booming Montana mining communities. Grant and his Shoshone wife Quarra settled near the new community of Deer Lodge in 1861, but its lawlessness prompted Grant to sell his hold-



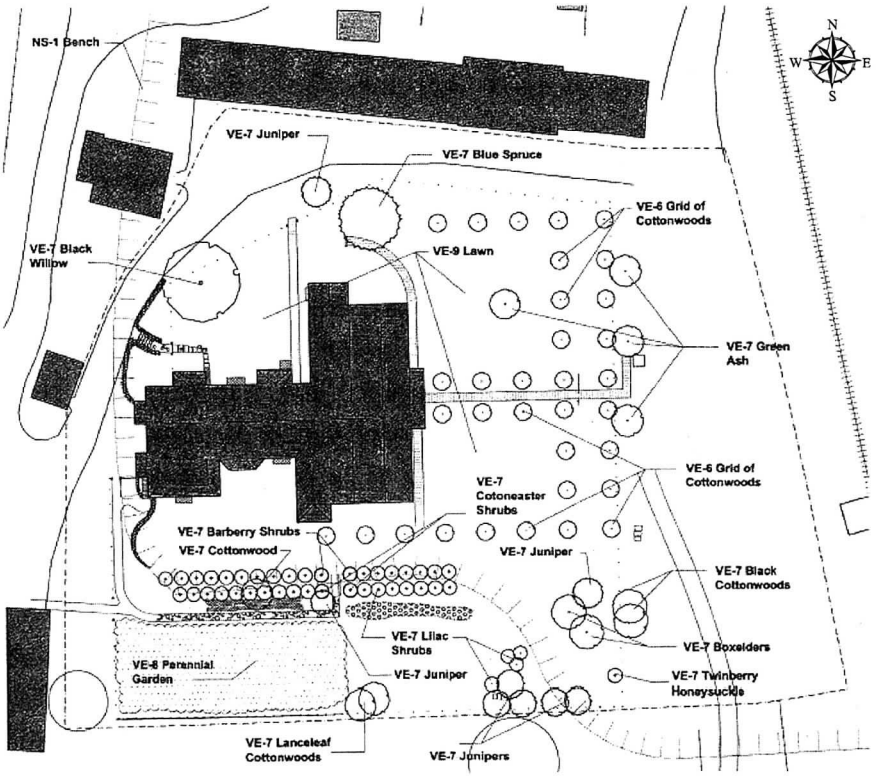
Grant-Kohrs Ranch, 1920 site plan. Buildings are keyed to their number in the text (e.g., HS-7). Source: National Park Service, Technical Information Center, Lakewood, Colorado.

ings, including squatter's rights, to Carsten Conrad Kohrs in 1866.

Kohrs and his partner, half-brother John Bielenberg, would dominate the regional beef market. Their ranch became the center of a vast cattle empire, supported by access to open and free grassland. Other financial successes included their early introduction of registered Shorthorn and Hereford cattle, and stock diversification that included a number of horse breeds. By the 1890s the ranch incorporated over 27,000 acres, with feed, water, and grazing rights over ten million acres of public land that spanned across Montana, parts of Utah, Idaho, Wyoming, Colorado and Canada.

Dissolution of the ranch began about a decade after Kohrs and his wife Augusta moved to Helena in 1899, leaving daily management to Bielenberg. In 1919 several parcels were sold off, an action repeated over a period of years. This change reflected the impact of a variety of external pressures. Cattlemen had exhausted available bunchgrass, contagious diseases had decimated the "pooled" herds of the open range, and homesteaders laid claim to western land and water. By the 1920s pasture ranching had replaced open-range grazing. That decade also saw the passing of the ranch partners. Kohrs died in 1920, followed by Bielenberg in 1922. In their wake, less than 1,000 acres of the "Home Ranch" remained, in caretaker status.

A rebirth of the storied ranch came through the efforts of Conrad Warren, grandson of



Grant-Kohrs Ranch, vegetation detail near main house. Source: National Park Service, Technical Information Center, Lakewood, Colorado.

GRANT–KOHRS RANCH SITES

Conrad Kohrs. Warren arrived in 1929, and assumed management of the Conrad Kohrs Company Ranch in 1931. He undertook a program of modernization consistent with changes being made throughout the livestock industry. This meant a new emphasis on livestock health, selective breeding, blended feeds, and feedlot and sales operations. Warren intensified cattle operations by breeding "comprest" cattle with fast growth rates and a higher meat/bone ratio, improving feed with forage plants and silage, and increasing crop yields with chemical fertilizers and improved irrigation techniques. Warren lived on the ranch until his death in 1993.

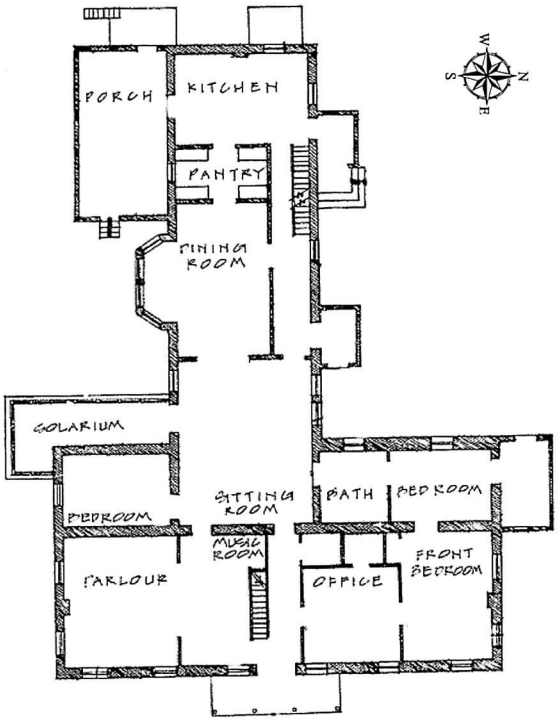
Today the property includes two primary building clusters, the Grant-Kohrs Home Ranch group and the Grant-Kohrs Ranch/ Warren Ranch building cluster. The structures within these clusters and in the greater ranch holdings represent a range of vernacular architecture typical of the region's agricultural buildings. Agricultural-use buildings reflect their period of construction and use: initial development featured log construction and post-and-pole for sheds, early barns, an ice shed and the bunkhouse. Frame construction was used for less substantial granaries and privies. At the time of construction, Grant's log home was remarkable in size, quality of materials and architectural detail. Yet it appears modest in light of the brick veneer addition and other improvements made by the Kohrs family. The large Victorian house is uncommon for a Montana ranch, but it is typical of late 19th century urban residences, and indicative of Kohrs' and Bielenberg's success as cattle ranchers. The 1930s Warren era development utilized frame construction, with metal pipe (salvaged steel air brake lines from old railroad cars) introduced for feed racks.

With the support of Warren and his wife Nell, the National Park unit was enacted in 1972 on an initial 142 acres. Today it embraces over 1,600 acres and 72 historic resources, and is maintained as a working ranch.

Main House (HS-01)
Builder: "McLeod, the hewer"
Carpenter: Alexander Pambrun
Built: 1862 - 1890

The two-story Main House is built in a T-plan consisting of the original hewn-log 1862 Greek Revival style "farmhouse," and an 1890 brick veneer addition built by Conrad Kohrs. The original portion of the house faces east and is of *poteaux en coulisse* construction (also known as "Red River Frame," Hudson's Bay Frame," piece-sur-piece, or mortise-and-tenon), with uprights set on a sill plate and infilled with horizontal logs mortise and tenoned into the uprights. The walls were then capped with a header or top plate. The logs were hauled from the Flathead Indian Reservation, 150 miles to the north. This Grant-era portion is sided in clapboards, is symmetrically designed about a central hall, and has a shallow-pitched saltbox roof with wood shingles, a rubble stone foundation and multi-light casement windows with functional shutters painted green.

After Kohrs purchased the building in 1866, he added a formal entry, with the central door, transom, sidelights and flanking windows sheltered by an open porch with square wood columns. Porch detailing includes a decorative balustrade in a Roman grate detail. Kohrs also added a two-story brick addition to the west with a full basement. The addition is built on a coursed stone foundation, and has a standing seam metal roof. The ground slopes down to the west, so that on that side the house is three



Grant-Kohrs Ranch, Main House (HS-01) floor plan. Source: National Park Service, Technical Information Center, Lakewood, Colorado.

stories, with a ground-floor basement entry. Facing the garden, the south façade has the most architectural details, including a large bay that defines the dining room. There is also a substantial Queen Anne detailed open porch topped with an elaborate balustrade. The porch has turned columns, spindle work and a short and shallow mansard-type roof covered with fishscale shingles. A conservatory built for Augusta Kohrs by 1907 links the two sections, wrapping around the southwest corner of the Grant portion.

The floor plan of the Grant component generally reflects the original design, although some room functions and most decorative finishes date or postdate the Kohrs' 1890 remodel. The 1890 addition arranged rooms along an east-west axis, with a staircase and hallway running the length of the north wall.

THE NOISIEST BIRD IN MONTANA: MAGPIE FOLKLORE

"Worth one's weight in magpies." Cornish proverb, 1869.

Officially known as the black-billed magpie (Pica pica), this member of the corvid family is a ubiquitous sight and sound across Montana. One of 113 corvid species that include ravens and crows, the magpie is known for its intelligence, hardihood, scavenging, chattering, and mischievous ways—all characteristics that have secured the magpie a place in the folklore and mythology of cultures across the world. Within the traditions of Ireland, England, Scotland, France, Germany, Greece, Norway, Finland, India, Macedonia, China, and Native North America, the magpie emerges as a paradoxical and slippery fellow. Magpie presages both good and ill luck and represents admirable qualities of strength and fearlessness as well as less than commendable traits of vanity, noisiness, and thievery.

While magpie is linked with success in hunting, warfare, and general fearlessness in several Native American traditions, including Mandan-Hidatsa, Sioux, Hopi, and Apache, in European and Chinese belief, magpie lore is more often linked to dwellings and their inhabitants' well-being. Such connections result in the warnings of bad luck aimed at anyone who kills a magpie in France, Germany, Norway, or India. This same concern underlies the magpie proverbs and their many variations across Britain and Ireland that relate one's degree of good fortune with the number of magpies gathered on or around one's dwelling. A common variant of the Irish proverb states:

One for anger
Two for mirth
Three for a wedding
Four for a birth
(In other versions this is 'death.')

Other variants include additional associations, as this one from Scotland:

One for sorrow
Two for mirth
Three for a wedding
Four for a birth
Five for a christening
Six for a death
Seven's heaven
Eight is hell
Nine's the Devil his own self

If a magpie was witnessed upon a house's ridgeline (and according to the above proverbs, we would expect the preferred number would be two magpies), it was believed the house was protected from destruction, particularly from storm damage. The origins of this idea are credited to the Biblical story of Noah's Ark in which the noisy magpies were expelled from inside the Ark due to their unceasing and irritating chatter. They alighted on the Ark's ridgepole, riding out the flood while apparently being in some way instrumental in the Ark's survival of the deluge.

Magpie lore is two-sided, however, as the appearance of a magpie on roofline or fence could be an omen of impending death for one of the dwelling's inhabitants. Likewise, its appearance or just the sound of its chatter may announce the coming of guests. In China, where the magpie seems to have a steadier character, its presence and prattle were always omens of good fortune, especially if encountered immediately upon setting out upon a journey or errand. In Europe, under these same circumstances, if you met a single magpie, your only hope of avoiding ill luck was to perform a countercharm like removing your hat in greeting, making the sign of the cross, crossing your thumbs, or making a cross on the ground with two pieces of straw. Alternatively, you could just return home and abandon your journey for the day.

However many magpies you may encounter here in Montana, it might not be a bad thing to tip your hat to them in greeting and ensure your journey a safe and well-favored one.

—C. Riley Augé

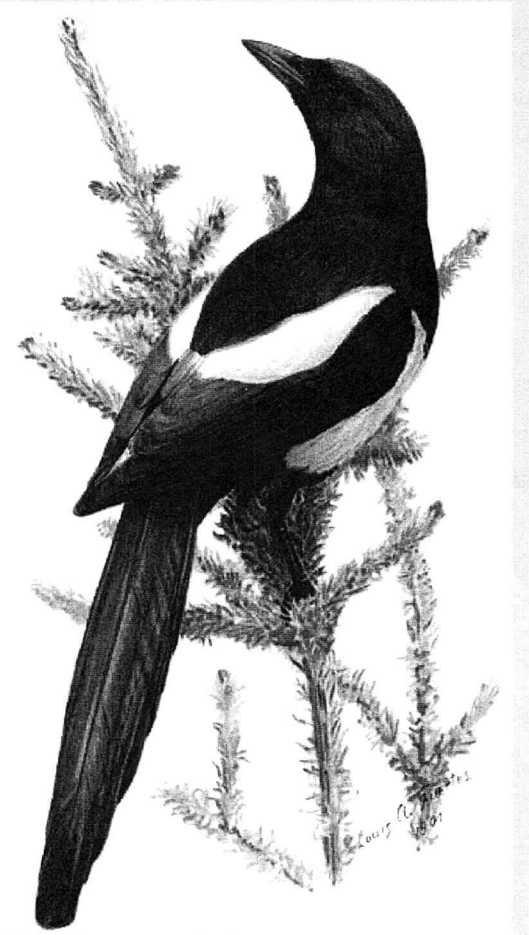
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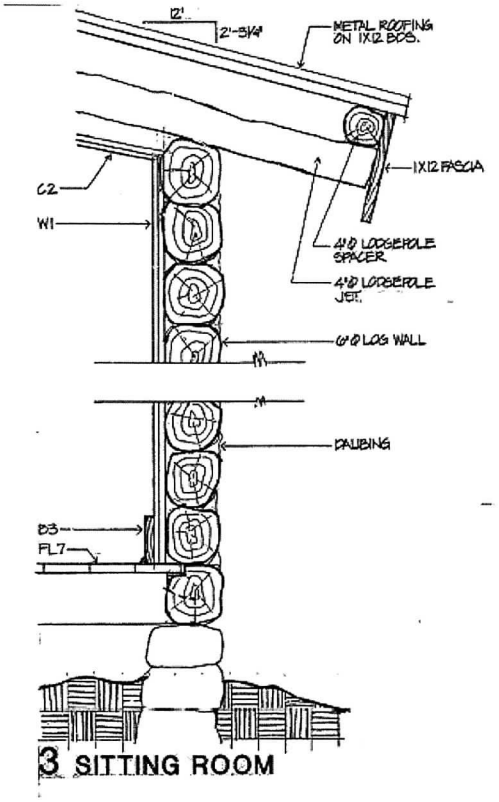
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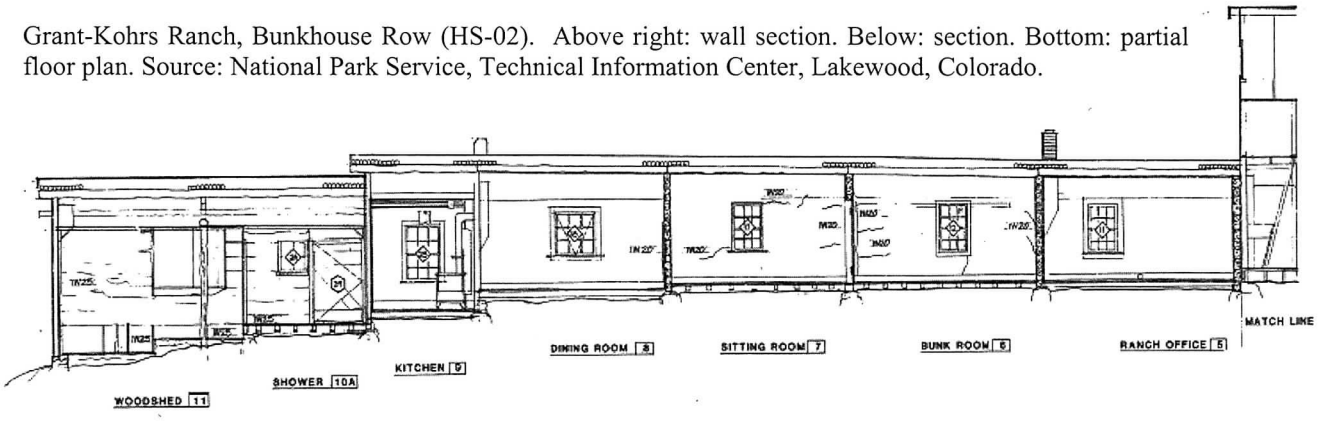
The porch was fully enclosed during the 1940s, but was restored from 1999 to 2005 to its original Victorian design of 1862-1863.

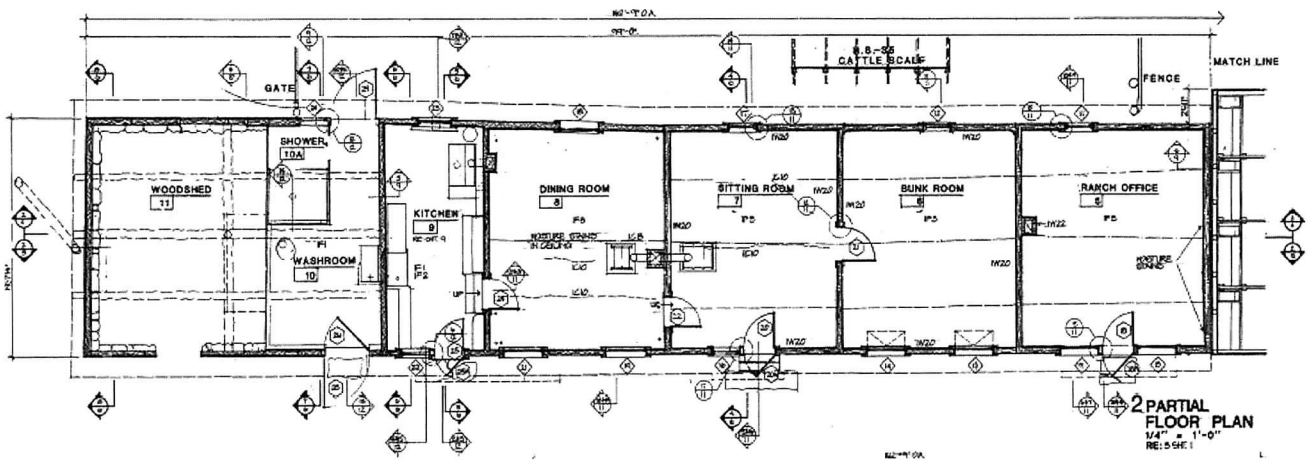
Bunkhouse Row (HS-02)
Built: ca. 1862-ca. 1907

Now a composite of log, post-and-beam and frame structures with corrugated metal roofing, the building began as a circa 1862 one-story, log, dogtrot cabin with a shallow gable that served as housing for John Grant during the construction of the main house. This section is identifiable by its half-dovetail log exterior walls. The open dogtrot was enclosed by 1884 and used as a bunkhouse. A frame dining room and kitchen was added to the west, and by 1907, a 1½-story gabled horse barn had been built between this building and a post-and-pole, shed-roof buggy shed to the



Grant-Kohrs Ranch, Bunkhouse Row (HS-02). Above right: wall section. Below: section. Bottom: partial floor plan. Source: National Park Service, Technical Information Center, Lakewood, Colorado.





east, joining the two structures. At the same time a frame woodshed and washroom were built adjacent to a kitchen on the west end. In 1907, when the Milwaukee Railroad tracks were laid, half of the buggy shed was moved into the yard west of the ranch house.

The east third of the original log cabin was remodeled after 1935 for Conrad Warren's ranch office, while the enclosed central portion was used as a bunkhouse. About the same time, the remainder of the bunkhouse was divided into a sitting room, dining room and kitchen. The building was wired for electricity, windows were enlarged, a new floor laid, interior walls plastered, a show room added to the west end, and plumbing added to the kitchen.

Today, from east to west, the bunkhouse components include a buggy shed, the horse barn (containing a chore-boy room/warming room and stables), ranch office, bunkroom, sitting room, dining room, kitchen, shower and washroom, and woodshed.

Bunkhouse Row was restored in 2004.

Garage-Blacksmith Shop (HS-03)
Built: 1935

Conrad Warren constructed this building in 1935 when he introduced mechanized equipment at the ranch. The frame building is on a concrete pad, has drop cove siding and a gable roof on an east-west axis. Three overhead rolling doors are on the north side, and a sliding double door mounted on an overhead horizontal iron track is on the west wall.

In 1975 the NPS insulated and heated the west garage stall to serve as fire truck storage. The building was rehabilitated in 1999 and currently contains four sections: an interpretive blacksmith shop, an storage/interpretation

BEAVERSLIDES

Invented in 1908 and patented in 1910 by D.J. Stephens and Herb Armtage of Montana's Big Hole Valley, these mechanical hay stackers continue to be used on some ranches today. The process of creating a 20-ton, 30-foot-tall stack of hay begins with mowing and raking. The hay cures for about 24 hours before it is raked into windrows. A buckrake is a vehicle used to collect the windrows—piles often as long as the field in which the hay grew. A full buckrake basket is driven to the beaverslide and dumped into a similar basket on the slide itself. The pile is hoisted up the slide so it can be dumped into the growing stack of hay, which collects between two barriers. Several men called stackers help keep the hay piles level.

Reference
www.nps.gov/archive/grko/horses.htm
—Richard Gibson

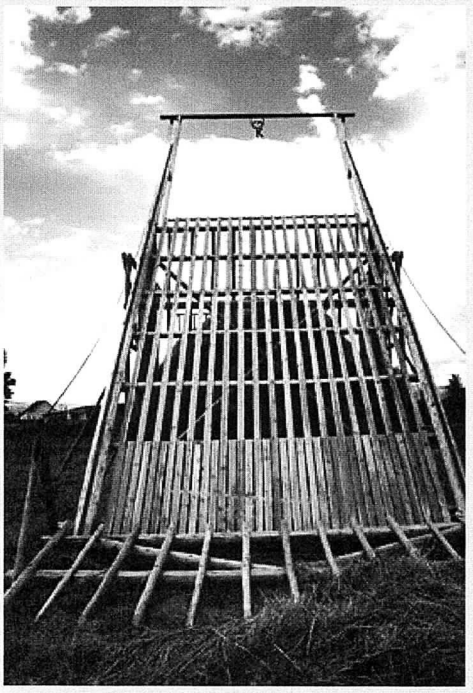
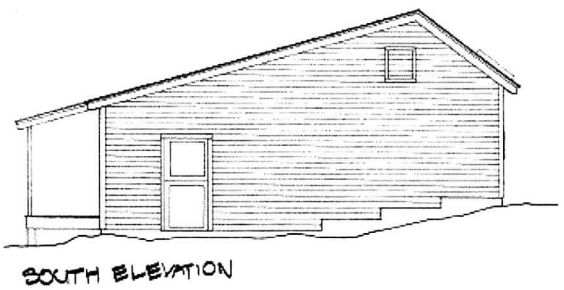


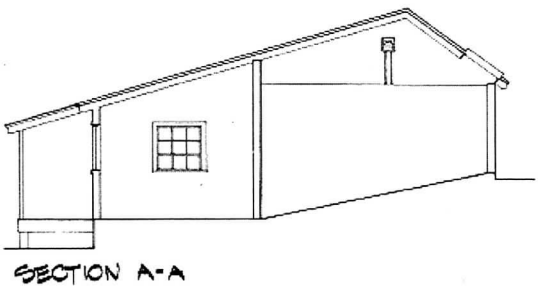
Photo from Grant-Kohrs Ranch, National Park Service.

preparation area, exhibit space and a comfort station.

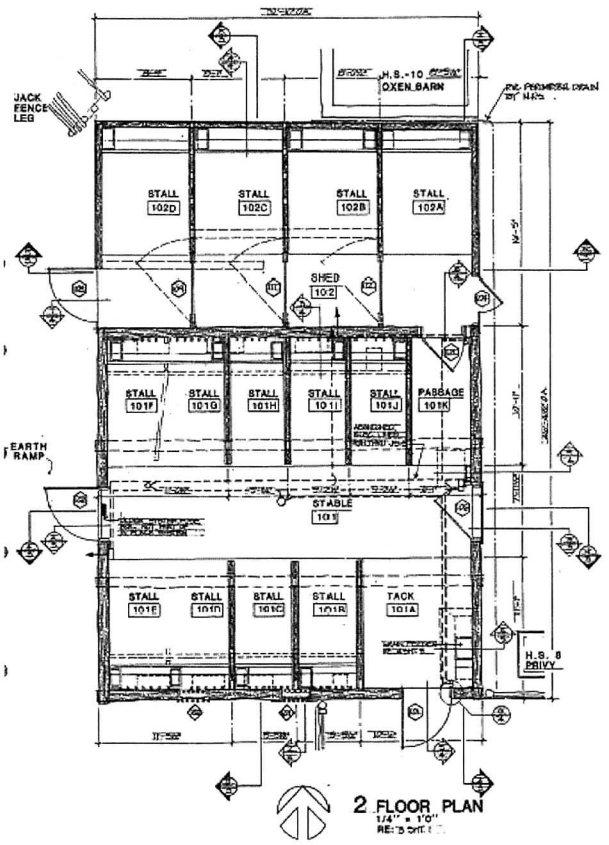
Granary/Roller Mill (HS-06)
Built: 1935

One of three granaries at the ranch, this one-story frame building built in 1935 has an off-set gable roof, exposed rafter tails and drop cove siding. The west façade contains an open, shed-roofed and cantilevered loading dock. Large wood sliding double doors provide access from the loading dock, while the south side has a Dutch door. There are four evenly-spaced hatch openings on the east side that provide truck access to the interior grain storage bins. The west side of the interior is occupied by a mechanical grain conveyance system. The building was restored in 2003.





Grant-Kohrs Ranch, Granary (HS-06). Source: National Park Service, Technical Information Center, Lakewood, Colorado.

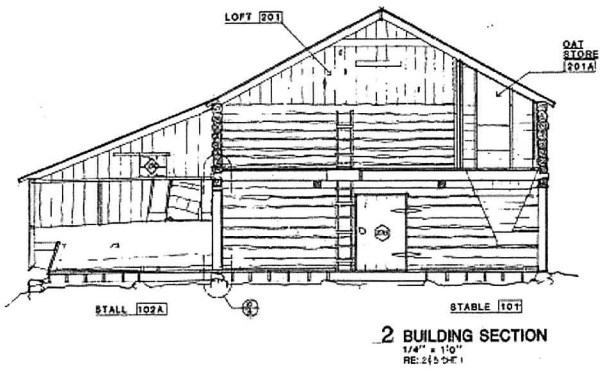


Grant-Kohrs Ranch, Horse Barn (HS-07), floor plan. Source: National Park Service, Technical Information Center, Lakewood, Colorado.

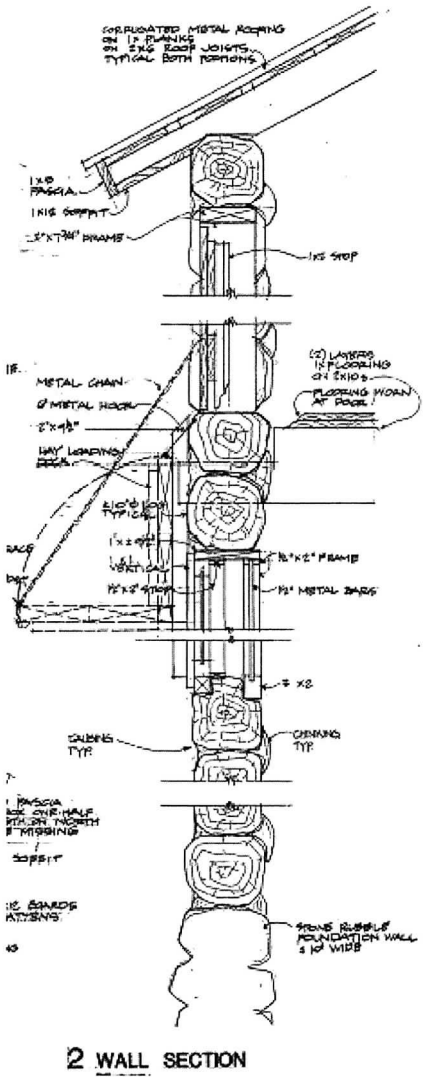
Draft Horse Barn (HS-07)
Built: ca. 1870

Located directly behind Bunkhouse row at the northeast corner of the building complex is the Main Yard Building Cluster, which includes the Draft Horse Barn, Oxen Barn and a Bielenberg Horse Barn.

The log and frame materials of the Draft Horse Barn exemplify the utilitarian design of the ranch's service buildings. Virtually unaltered, the two-story barn is built on a stone foundation and has V-notched log walls, with vertical wood planks in the gable ends. There is a shed addition on the north side with board-and-batten siding. Both the main gable



Grant-Kohrs Ranch, Horse Barn (HS-07). Above: section, below, wall section detail. Source: National Park Service, Technical Information Center, Lakewood, Colorado.



roof and the shed roof are covered with corrugated metal.

The interior walls and ceiling are unfinished sawn timbers and vertical boards. There are eight stalls in the original section and four in the addition. Each stall has a feed trough. A wood ladder accesses the upper-level hay loft. The building was restored in 1993.

Oxen Barn (HS-10)
Built: ca. 1870

The Oxen Barn is located immediately north of the draft horse barn. It is a 1½-story log building with a gabled roof oriented north/south. The logs are joined with V-notching and daubed with a lime-based mortar. Vertical boards fill the gable ends. Access is on the west end through double leaf doors, and on the east side, where there is a half door for access to the loft. The roof is covered in wood shingles. Deterioration required substantial reconstruction in 1981, and the stone foundation was replaced with concrete piers infilled with stone.

Bielenberg Barn (HS-11)
Built: ca. 1880

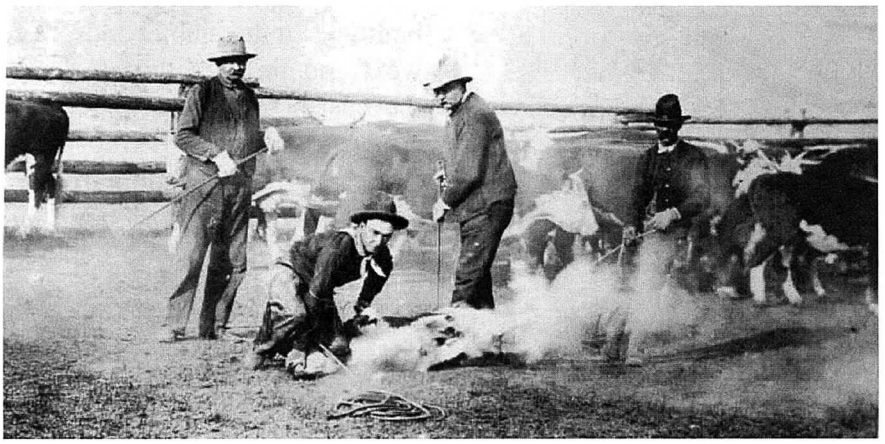
The barn's circa 1880 construction date coincides with large-scale horse racing on the ranch, and the barn's design is reminiscent of racetrack "shedrows." The one-story barn is believed to have housed John Bielenberg's racehorses, and has a west-sloping shed roof and pole structural system. The walls are sided with whitewashed, board and batten siding, and skirtboards painted red. This siding dates to the Conrad Warren era of circa 1933. On the east wall are eight board and batten stall doors, and a fixed multi-light window above each door. Prior to 1938 there was a roof over the entrances into the corral area. The interior walls and ceiling are unfinished. On the north

side interior, the stall walls are open and framed with poles. South side stalls are of pole construction, with horizontal plank half-walls, and built-in feed troughs.

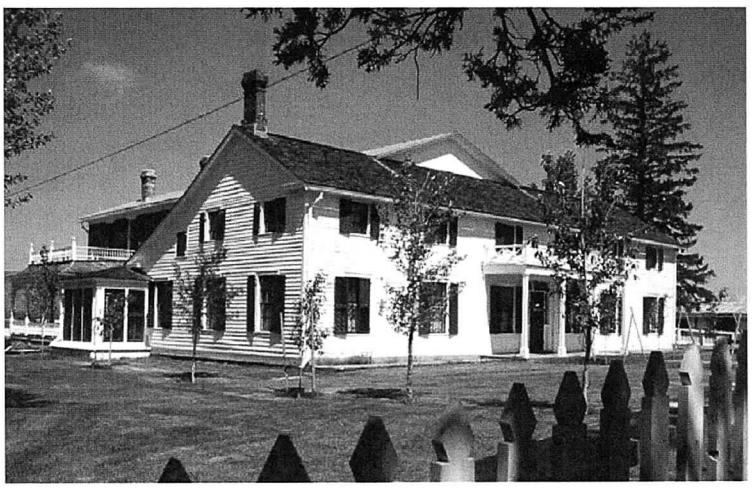
Thoroughbred Barn/Stallion Barn (HS-15)
Built: ca. 1883

Several stallion barns were constructed by Kohrs and Bielenberg during a period of large-scale horse raising activities on the ranch. This 1½-story barn is a post-and-beam/frame building sided with board and batten on the walls and roof. In the center of the north wall are double doors; a pedestrian door is cut into the west leaf. A second door is on the west side, and large wood double doors on the south wall have a Dutch door on the east leaf.

The barn initially housed a large number of Thoroughbred horses. One of the stalls was used for foaling mares. An adjacent bricked-in sleeping room with an interior window provides a view to the foaling area. The interior walls and stalls are finished with horizontal boards. For a time Warren used the sleeping room as an office. In the 1940s and early 1950s Warren used the barn as a show barn for his Hereford cattle. He added a cupola in 1957 to house a granary mixer and floor scale, and removed the original stalls. The cupola was removed as part of a restoration project in 1981.

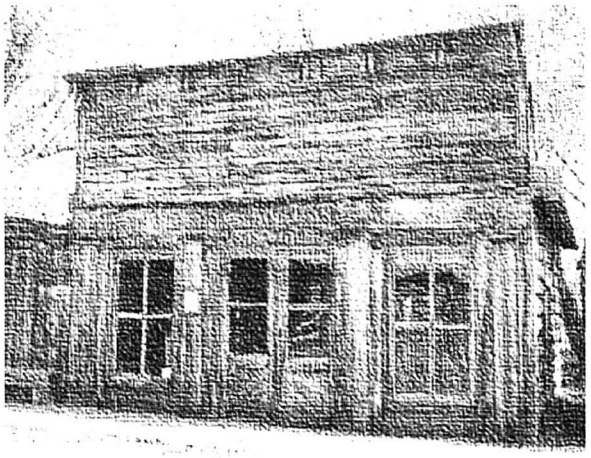


John and Charles Bielenberg branding cattle at Grant-Kohrs Ranch. National Park Service photo.

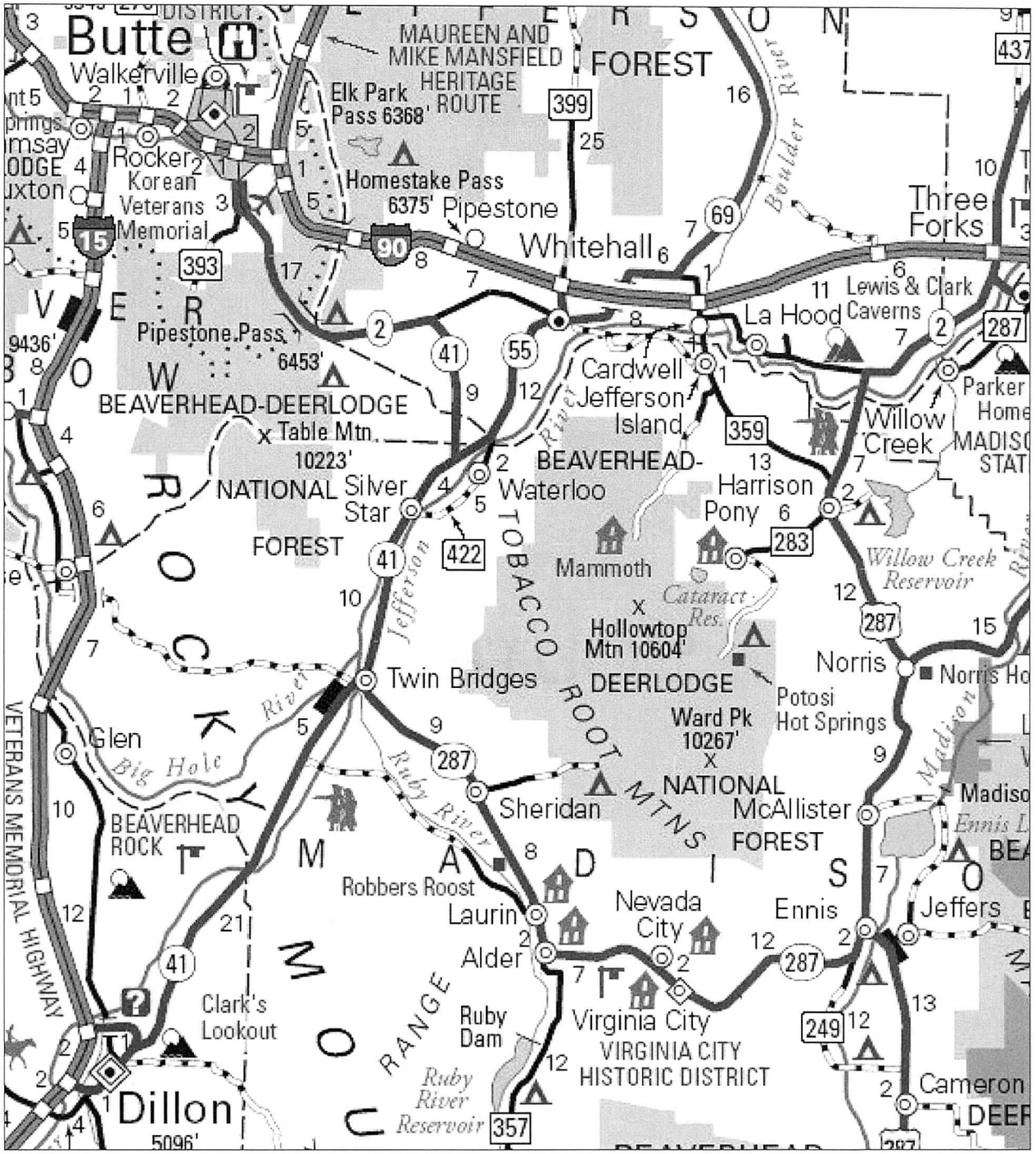


The Ranch House at Grant-Kohrs. National Park Service photo.

Southeast Tour



False–front building, a type common in Virginia City. From a photo by Richard Gibson.





Highway index map for Southeast Tour. Planned route follows I-90 from Butte to Cardwell; Hwy 359 to Harrison; Pony; US 287 and Montana 287 to Ennis, Virginia City, Alder, and Twin Bridges. Return to Butte via Montana Hwy 41.

Map from Montana State Highway Map, from Montana NRIS system.

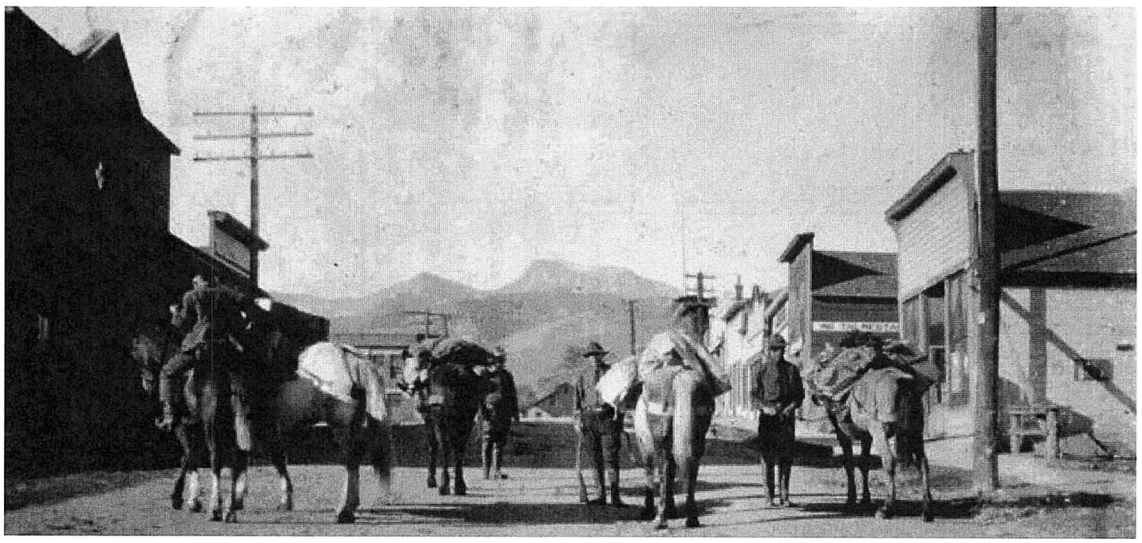
PONY

Probably named for Tecumseh "Pony" Smith, a man of small stature, the town of Pony grew in the 1870s through 1900s to become one of Montana's most important gold mining camps. The town lies on the eastern flank of the Tobacco Root Mountains, with the highest peak in the range, Hollowtop (10,604'), to the west. Early booms and busts—300 people in 1877, 87 in 1880—were followed by a relatively sustained boom in the 1890s and 1900s. Although exaggerated population claims boasted as many as 5,000 residents, the estimated population peaked in 1900-1902 at about 1,000. These residents—miners, bankers, families—supported at least a dozen saloons, local brick yards, multiple Chinese laundries, a baseball team, and a moving picture theater.

Gold was always the commodity of choice in Pony. Minor placer deposits along Willow Creek exploited in the early 1870s led to the beginning of lode mining in 1874. The gold came mostly from mines between the town and Hollowtop Mountain—the Boss Tweed, Strawberry, and others ultimately produced more than $5,000,000 in gold. The Northern Pacific Railway reached Pony in 1890, an important stimulus for the late 1890s-early 1900s expansion.

Mining operations supported Pony into the 1930s, although agriculture had become a mainstay by 1910—in 1908 the town council passed an ordinance prohibiting running of cattle and poultry in town, and in 1910 agricultural workers outnumbered miners in the census by 99 to 88, out of a total population of 369. The 1902 high school closed in 1943, and the hotel last served overnight visitors in 1959. Today Pony's resident population is about 200.

—Richard Gibson

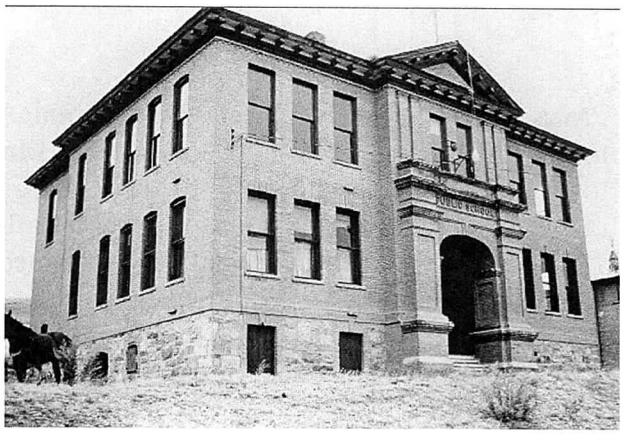


Observing party leaving Pony, Montana, for Station Jefferson in 1922. Heading for Mt. Jefferson, at left in distance; Hollowtop Mountain at center. Photo from National Oceanic and Atmospheric Administration, Coast & Geodetic Survey Historic Photo Collection.

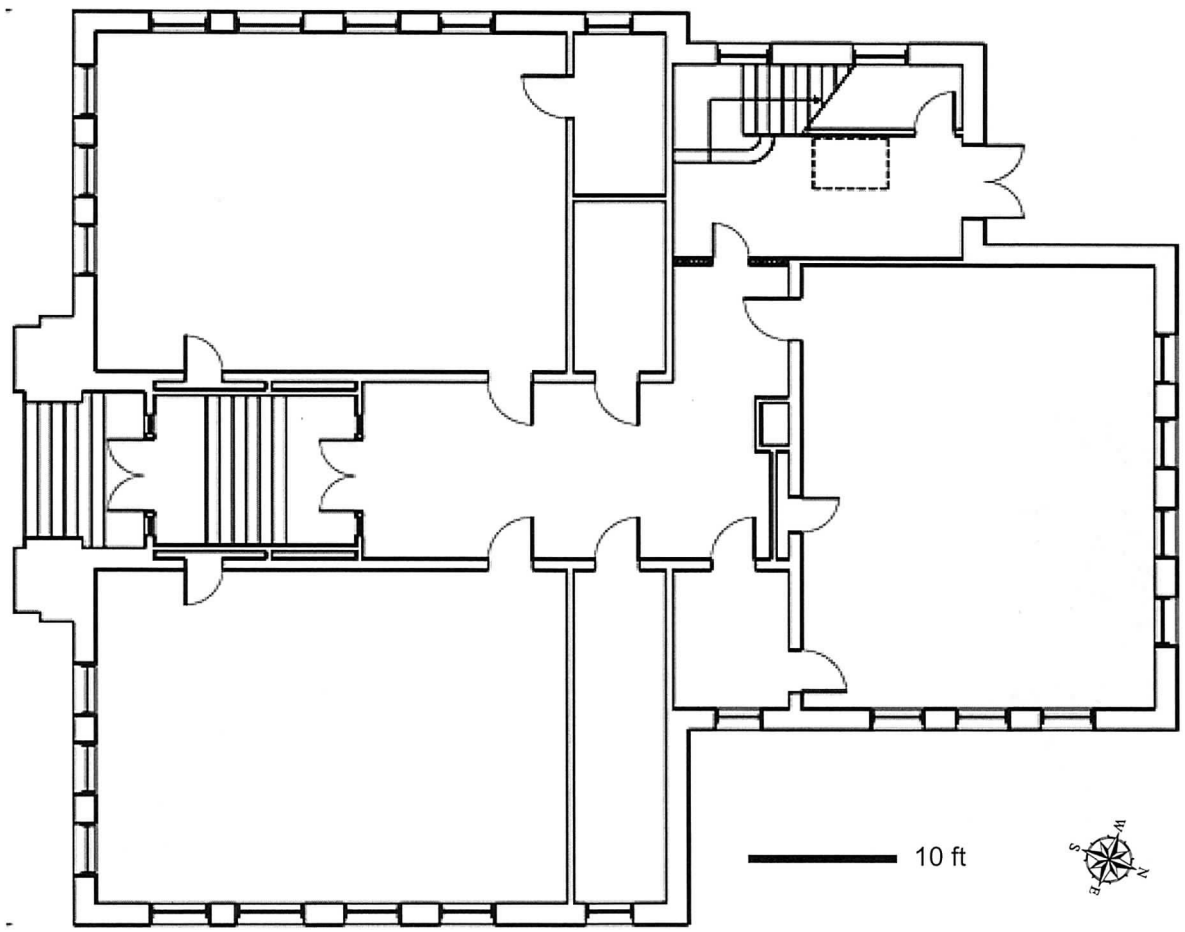
PONY SITES

1. Pony School
Reel Street

The largest building in Pony was erected during a boom period. The first school's burgeoning enrollment of 151 in the fall of 1900 represented a 16% increase over the previous year, and growth was expected to continue. A 1902 bond issue financed construction of a new school, designed by prominent Butte architect Henry Patterson and built by contractors McDonald and Bradshaw, whose bid on the project amounted to $10,318. The 65'x75' school opened for the fall term of 1902.



Pony School.



Pony School. First floor plan. Fieldwork by Maire O'Neill and Seth Burwash Drawing by Seth Burwash.

Construction was subcontracted locally, including the stone and brick work by brothers Neal and M.D. McSherry, tin and iron fixtures by Bert Hofer, and lumber supplied by Joe Ferrell. The building is essentially unaltered from its original state.

References
Zimmerman, David, 2008, *Pony Montana: A Golden Past, Still A Treasure*: 3rd ed., Pony Homecoming Club.

Pony, Montana, National Register Nomination Form, 1987.

—Richard Gibson

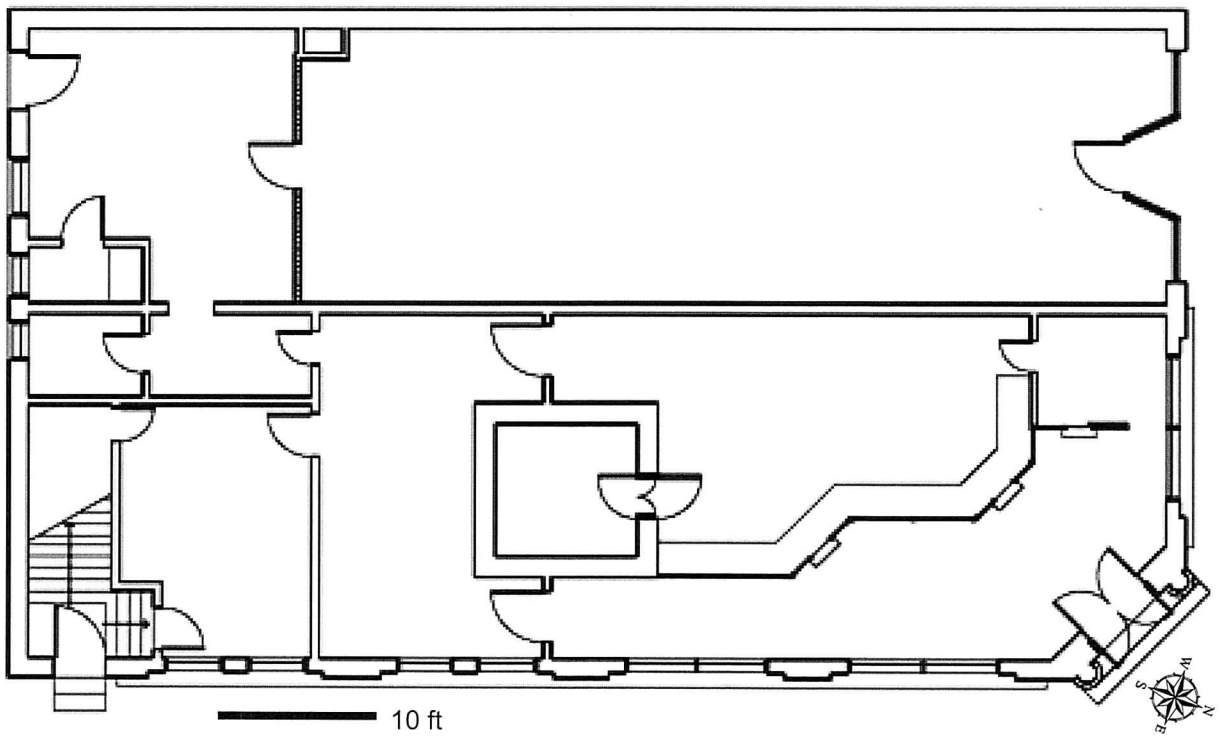
2. Morris State Bank
Broadway Street

The bank was organized with $50,000 capital in 1901 under the leadership of William W. Morris, a mine owner. Butte architects German & Lignell were contracted in 1902 to design a new building for the bank, which was

GERMAN & LIGNELL

Frederick German and A. Werner Lignell were prominent Duluth, Minnesota, architects. The Canadian-born German was educated at the University of Toronto and first worked in the United States in Detroit. He started his own practice in Duluth in 1889, a business with various partners that continued until about 1920. Extended work away from Duluth included a year in Kansas City (1899) and a three-year stint in the Butte area (1900-1903), including the design of the Morris State Bank in Pony. His prolific work in Minnesota and Wisconsin included homes, schools, churches, and public buildings, notably the West Duluth Municipal Building and post offices in Green Bay and Superior, Wisconsin. Lignell was probably born in Åland, Finland, in 1867. The Tudor-style Cole house is among the many Duluth buildings on which he collaborated with German.

—Richard Gibson



Morris State Bank, floor plan. Fieldwork by Maire O'Neill and Seth Burwash. Drawing by Seth Burwash.

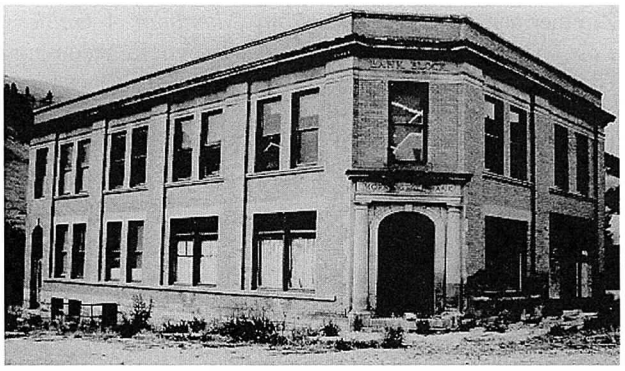
built by McDonald and Bradshaw, the contractors who were also building the Pony School. The brick was laid by local mason Neal McSherry, and the total expected cost was $13,000.

Morris was president until he died in 1904, when the presidency of the bank was assumed by Thomas Duncan, who also died within the year, and Mary Elling became president. Her family was involved with the Elling State Bank of Virginia City. By 1906 the Morris Bank had $200,000 in deposits.

The bank building also housed the Pony Post Office, a real estate company, Pony Commercial Club, the Pony City Council, a notions store, and a barbershop. Despite its original connection to mining, the bank became dependent on agriculture and in 1926 the Morris State Bank closed but did not fail, and its assets were transferred to other banks.

Reference
Zimmerman, op. cit.

—Richard Gibson



Morris State Bank.



A barely surviving building in Pony. Photo by Rolene Schliesman.

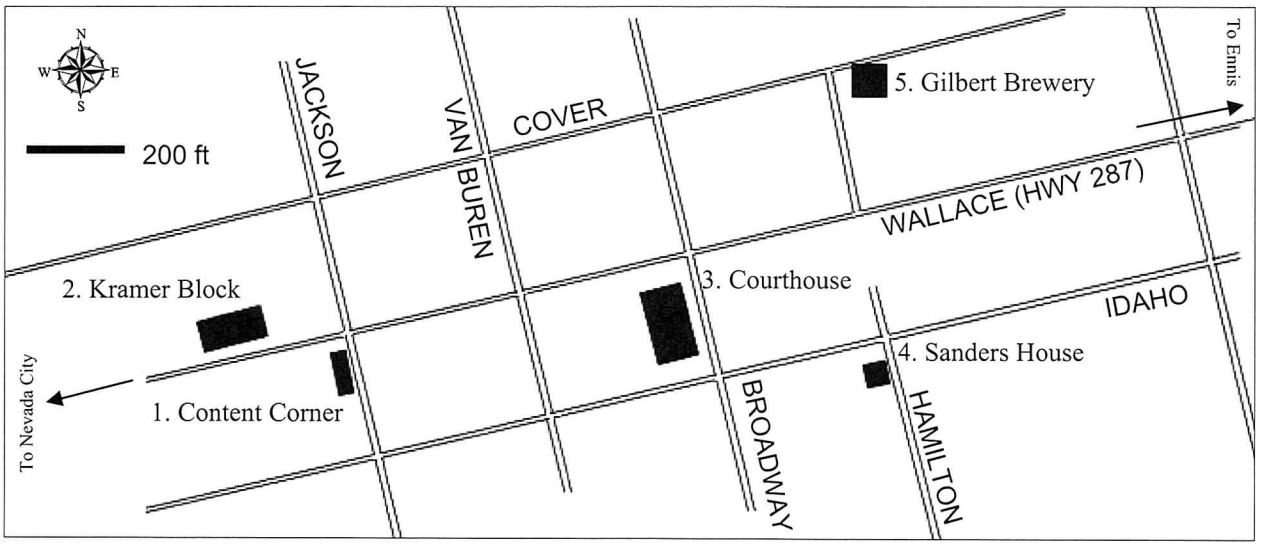
VIRGINIA CITY & NEVADA CITY

Virginia City was the second territorial capital of Montana and today remains the seat of Madison County. The population in 1864, for the entire "fourteen-mile city" that stretched from Virginia City west to Laurin and beyond, was perhaps 10,000—no surprise for an incredibly rich placer deposit that produced some $30,000,000 in gold from 1863-1866. The territorial capital moved from Bannack to Virginia City in 1865, the year after the first newspaper in the territory began publication in Virginia City's Montana Post building, which is still standing. The three-year boom ended abruptly, and by the middle 1870s, when the territorial capital moved to Helena, the population had fallen to a few hundred and never rebounded. Today's population is listed at 132.

Virginia City and Nevada City, two miles to the west, are examples of early historic preservation efforts, fostered by one family. Charlie Bovey was a Montana rancher and state legislator who, with his wife Sue, funded a private preservation campaign beginning in the late 1940s that led to their eventual ownership of about a third of Virginia City and all of Nevada City. The latter became a repository for buildings from across the state that the Boveys were able to save; most buildings also contain hundreds of period artifacts and furnishings. The State of Montana acquired the Bovey properties in 1997 at a cost of $6.5 million (buildings and land, $1.5 million; artifacts $5 million), managed today by the Montana Heritage Commission.

Reference: Grant, Marilyn, 1998, *A Guide to Historic Virginia City*: Montana Mainstreets Vol. 1, Montana Historical Society Press, 72 p.

—Richard Gibson



Index map of Virginia City showing sites described in this section. For greater detail, see Grant, M., *A Guide to Historic Virginia City*: Montana Historical Society Press, p. 4-5. Map by Richard Gibson.

VIRGINIA CITY SITES

1. Content Corner (Bob's Place)
Wallace at Jackson Street

When Content Corner was originally built in the summer of 1864, it was one of the first stone buildings in town. It was located at a prominent intersection, as reflected in the original treatment of the storefront, which continued around the corner to face Jackson Street. At the time, Jackson Street was lined with stores, warehouses, a photography studio, hotel, and other enterprises; it bustled as the street that led to mining activity. Content Corner was purchased by Solomon Content in November 1864 for $4,000. The building has housed numerous owners and businesses, primarily hosting retail operations on the first floor. Most importantly, the second floor was used for the Territorial offices during Virginia City's tenure as the capital from 1865 to 1875. The configuration of these offices has been reconstructed in the recent reconversion from apartments into the Montana Heritage Commission offices.

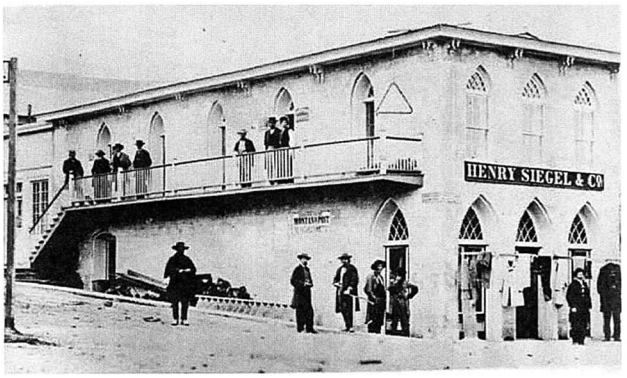
With the exception of the c.1898 brick façade with large glass display windows, this stone building retains much of its original exterior treatment, and a reconstructed exterior balcony and stairway similar to the original. The exterior native field stone walls are 20" thick. The original street-front openings were all lancet arched, except for the rear first floor doorway. Tall windows and doors were accentuated with arched transoms typical of the Gothic style. The hipped roof extended beyond the walls, with soffits supported by Italianate style scroll-sawn brackets.

This L-shaped building had a one-story stone warehouse added at the rear between 1876 and 1884. The building was owned by the Gohn family from 1919 through the 1976. Bob Gohn ran a bar on the first floor, offering groceries and fishing equipment as well. "Blind Bob" had lost his sight in a mining accident and became—by dint of his noteworthy dexterity and personality—one of Virginia City's colorful and favorite characters.

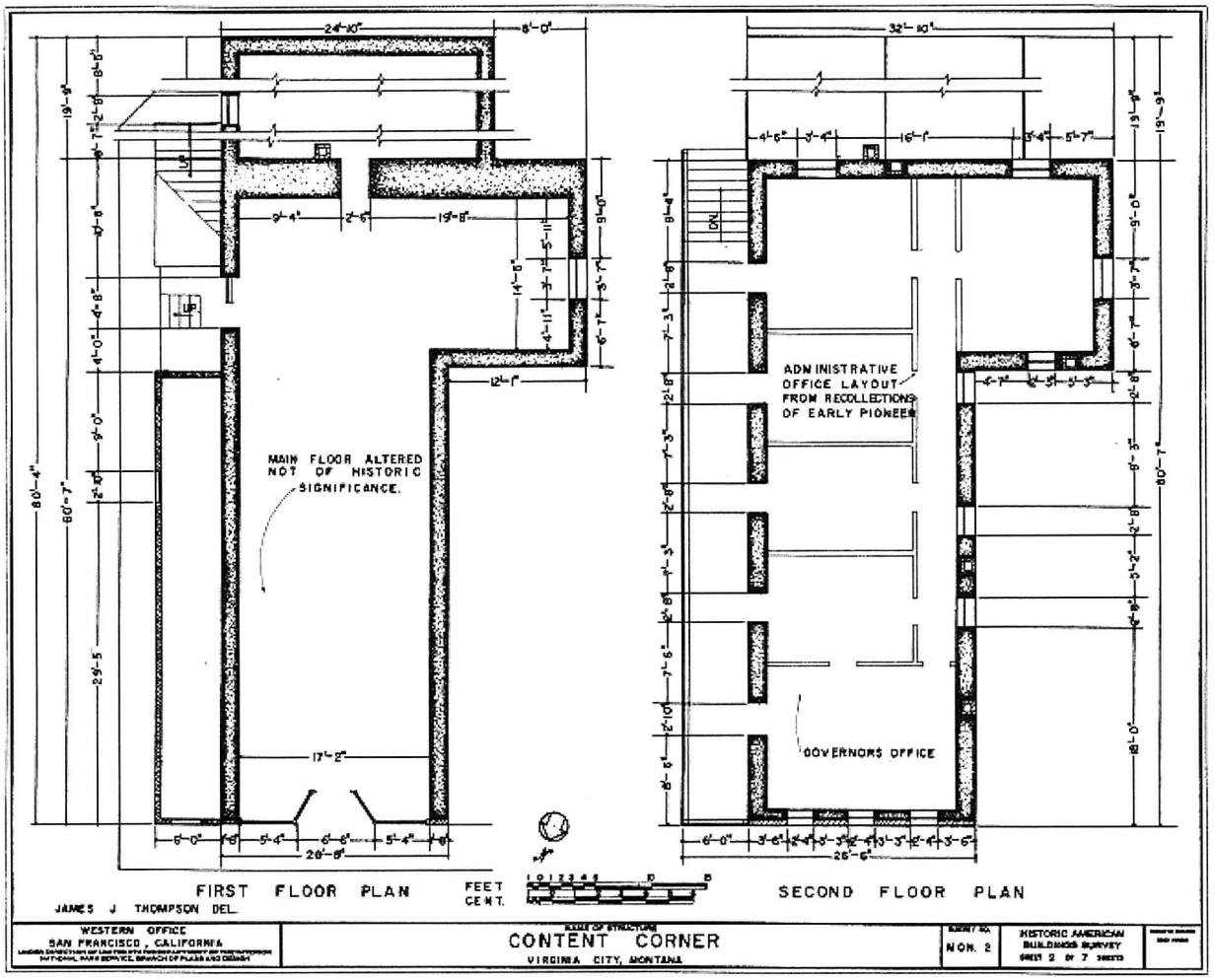
—Lesley M. Gilmore

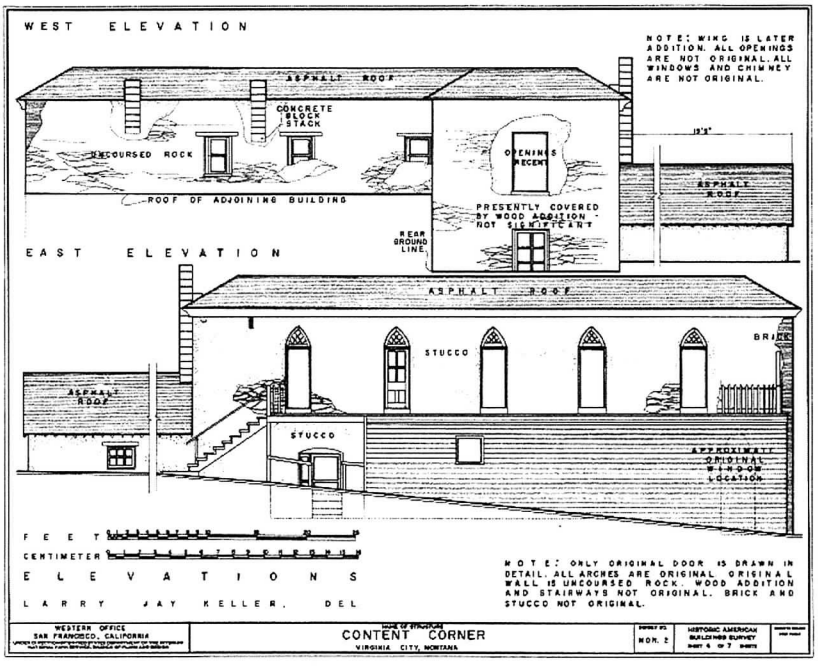


Content Corner. Photo by George Means.



Earliest photo of Content Corner (1863). HABS MONT, 29-VIRG, 2-2.





Content Corner. Floor plans (above) and elevations (right). Drawn by James J. Thompson and Larry Jay Keller. HABS MONT, 29-VIRG,2 report by John DeHaas.

2. Kramer-McGovern-Strasburg Wallace Street west of Jackson

The following three buildings—Kramer, McGovern, and Strasburger—were constructed hastily with easily obtained materials in 1863 during Virginia City's camp phase, before the future of the town was assured by the wealth generated by the mining. The transformation of this triplet of buildings from log cabins into commercial enterprises (and often back again to residential), their preservation by default, and their subsequent appeal to Charles Bovey as historic artifacts, act as tangible and tactile symbols of the flexible essence of Virginia City.

Kramer Building

This building represents the evolution from log dwelling to clad commercial storefront, epitomizing the enterprise associated with this rapidly growing city. Built originally as a log dwelling by blacksmith Augustus Griffith in 1863, it was transformed into a storefront in 1866 when the bay window was installed; this is probably coincident with construction of the false parapet front. Commercial use in the building's front portion, with a dwelling in the rear, was continued by subsequent owner saddle maker Julius Kramer in the 1870s. By 1907, according to the Sanborn maps, it was used solely as a dwelling. This change in use reflected Virginia City's decline in population from 2500 in the 1870s to less than 600 in 1907.

Originally built in 1863, it was a typical crudely built log cabin with a pole roof covered with mud. The roofing is illustrative of the progressive use and availability of different materials: the original pole roof predates the 1864 sawmill; several subsequent layers of sawn board roofing were used to build up a steeper gable roof atop the mud; corrugated tin and wood shingle roofing now conceal the boards. The log walls were soon covered with vertical board-and-batten siding. Missing siding on the west façade reveals the original logs. The well-preserved original cloth-lined interior finish is typical of that prevalent throughout the western frontier.

Goldberg Store, McGovern Dry Goods Building, Weston Hotel

This building was originally built as a log cabin home by Anne and James Sheehan, one of the early families to arrive at Alder Gulch in the summer of 1863. Their daughter, Mary "Mollie" Sheehan Ronan wrote of the exciting and sundry visitors – from "discovery men" to outlaw George Ives – her parents hosted in this cabin, in her book *Frontier Woman*. Gumbert Goldberg and two partners bought the property in 1864 for $1800; they probably installed the commercial storefront, clapboarding, and the false front with frieze and simple cornice. By 1866, the west part of the building had become the Weston Hotel, accessed by the single door. This shotgun series of four guest rooms provided necessary accommodations for the thriving city.

By 1884, the building was used as a dwelling again, then converted to a dry goods store by sisters Hanna and Mary McGovern c.1908. This handsome Greek Revival storefront, similar to those on other commercial buildings in town, showcased outdated goods that the sisters had bought from the prior owner of their business. Some of this unopened stock – some from the 1880s – remains in the building today. Charles Bovey rented the building from Mary McGovern in the early 1950s, with the express purpose of providing visitors with views of the goods from outside. He bought the building in 1954.

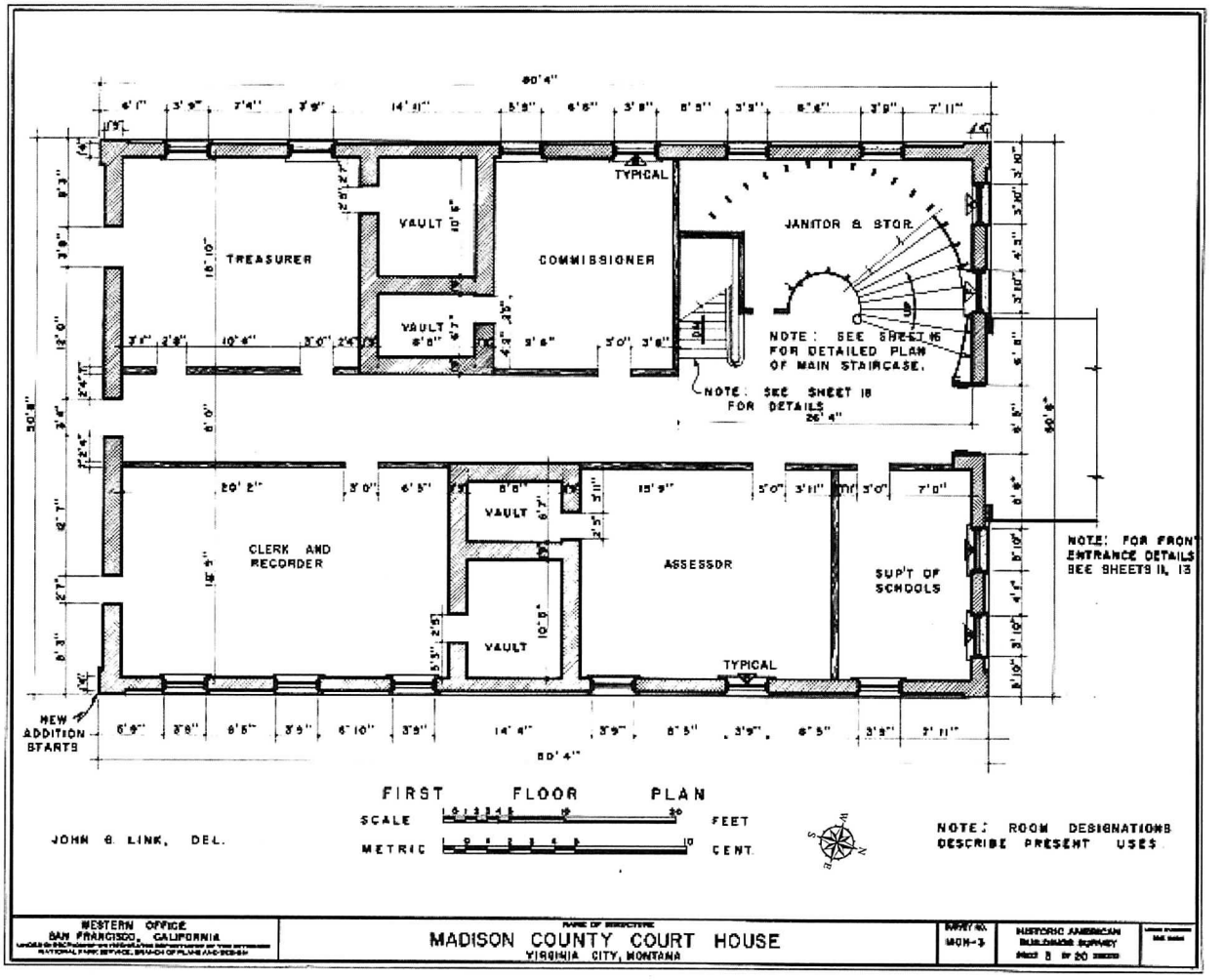
—Lesley M. Gilmore

Strasburger's Store

Strasburger's Store, like its neighbors to either side, was originally constructed as a log cabin in 1863. By 1866, it too had been improved with a storefront and tall false-front, concealing the gabled roof beyond. The French doors flanked by the large expanses of shop windows reflect the westernization of a national retail trend. The recessed entry bay was an innovation promoted in the 1870s to draw customers into the shop. The small glass panes were shipped in via the Missouri River or overland from Salt Lake City. The original glass remaining – indicative of the city's languishing state – is evidenced by pits and bubbles.

The store was divided into two commercial spaces; Isidor Strasburger operated a dry goods business in one side until the late 1870s. By 1884, the building was again used as a dwelling, reflecting the decreased need for goods by a declining population. The log cabin which had been to the store's east was removed by 1904, revealing the log structure of the store, and the extensive shed beyond. While a few of the Virginia City storefronts had awnings in the 1860s, it appears that the rough wood awnings on these three stores were added after the 1930s.

—Lesley M. Gilmore

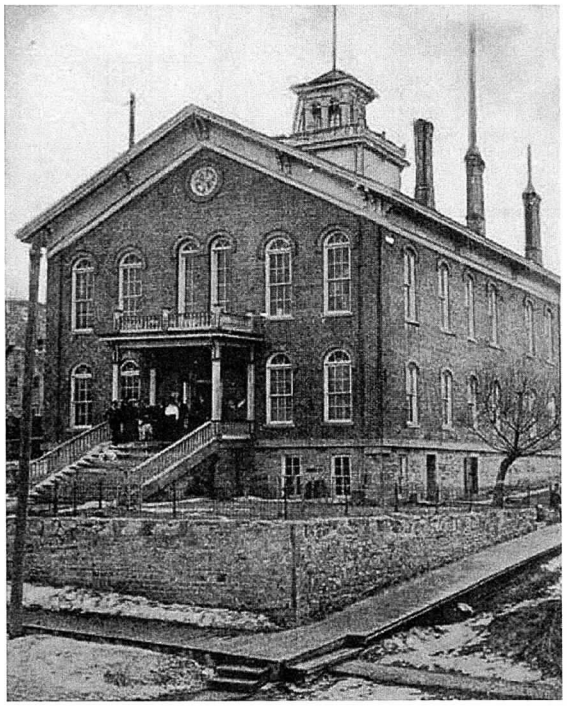


Madison County Courthouse. First floor plan. HABS MONT, 29-VIRG, 2. Drawing by John Link.

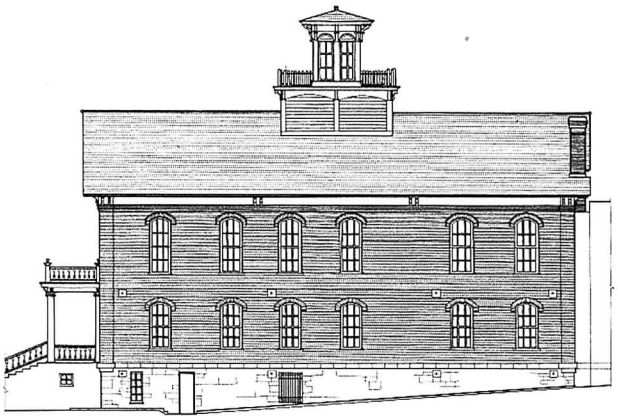
3. Madison County Court House
Wallace at Broadway Street

Soon after its recognition as a territory, Montana established eight counties, including Madison County. Virginia City had been the county seat of Madison County since the city was incorporated in early 1864. In planning for the Madison County Court House, the citizens were keen on assuring a future with a solid and permanent building – despite the waning population of Virginia City. A contract for the court house and jail construction was awarded on May 22, 1875 to contractor Daniel Steele, for a cost of $33,000. The work was based on the design by architect Loren B. Olds and completed in 1876. Olds also designed a meeting hall and a school in Virginia City

The Madison County Court House is a two-story brick Italianate style building on a raised basement. This well-proportioned building is 50' by 80' in plan and in side elevation, and presents a square front gable-end façade. The symmetrical entry façade is dominated by the central entry porch, which is flanked by pairs of tall windows on the first and second floors. The typical window opening height is increased with an arched transom window demarcated by a brick arched hood. Fenestration on the two long side walls is indicative of the interior use; gaps in fenestration occur at the first floor vaults. The 16"-thick walls of red brick are set in a running bond with headers every eighth course. The corners are slightly accentuated with narrow full-height pilasters that rest on corbelled stone at the top of the base. The solid masonry basement walls are of uncoursed fieldstone from a nearby quarry, finished with a smooth cut sedimentary stone watertable. The gabled roof is surmounted by a large cupola that is square in plan; this supports a lantern with a pyramidal roof. Large windows in the lantern provide access to the balcony roof of the cupola.



Madison County Courthouse. Early photo in HABS collection.



Madison County Courthouse. West elevation. HABS drawing by Larry Jay Keller.

A two-story addition was erected at the rear (southeast) in the early 1900s. This south addition was fleshed out with an addition in the southwest in 1962. The center hallway of the original building connects with these additions.

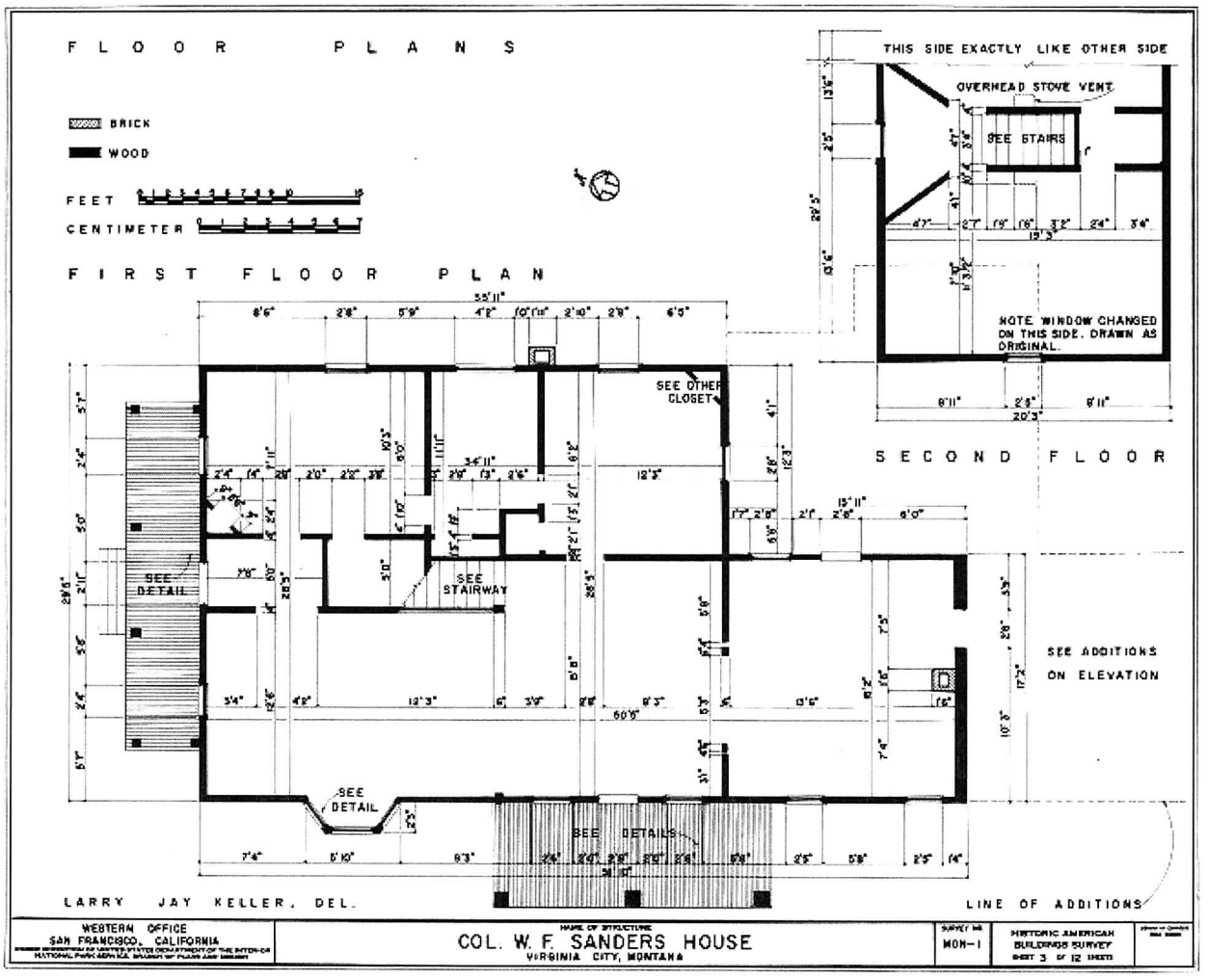
—Lesley M. Gilmore

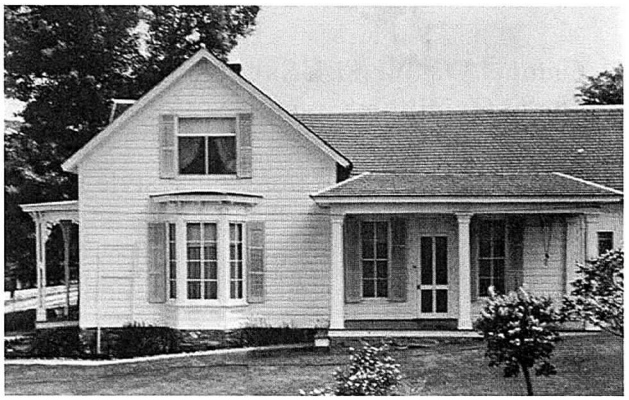


Sanders House. North elevation (above). Floor plan (below). HABS drawings by Larry Jay Keller.

4. Colonel Wilbur Fisk Sanders' House Idaho at Hamilton Street

This once simple Carpenter Gothic style home was built by Colonel Wilbur Fisk Sanders in 1867, just four years after his arrival in Montana. In June 1863, Sanders had come to nearby Bannack with his uncle Sidney Edgerton, who had recently been appointed Chief Justice of the newly formed Territory of Idaho, of which Bannack and Virginia City were a part. Sanders was heavily influenced by his Republican uncle and helped with his efforts to have the large territorial land mass divided by the Rocky Mountains split into two territories – the second being the Territory of





Sanders House. West elevation. HABS photo (1963) by John DeHaas.

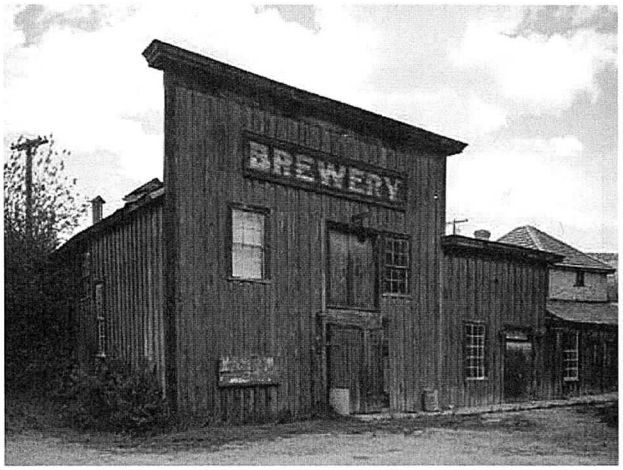
Montana, which was signed into law on May 25, 1864.

Sanders' influence in Virginia City is primarily related to his part in the beginning of the vigilante activities, sparked by his efficacy as prosecuting attorney in the trial of George Ives, a road agent suspected of killing a delivery boy. The three-day trial resulted in a guilty verdict and death by hanging the same evening as the sentence, on December 21, 1863. Wilbur Sanders is presumed to have been part of the planning of the Committee of Vigilance, which was formed soon thereafter.

Sanders was involved in many of the seminal Montana institutions at their inception, including the Society of Montana Pioneers (Dec. 1864), Montana Bar Association (Jan.1865), the Montana Historical Society (Feb. 1865), and the State of Montana, which he represented in the U.S. Senate (Dec. 1889). He held positions of leadership and action and took these roles seriously. He remained as the president of the Montana Historical Society for twenty-five years.

Sanders and his wife Harriet Fenn ("Hattie") lived in this house from 1867 until completion of their home in Helena in 1875. The house has undergone many changes that are evident upon examination. Originally built as a simple side-gable I-plan with entry gable and narrow front porch, by 1899 the vergeboard at the gable rakes had been removed, the front porch widened and Italianate brackets added, and the building expanded to the south. This addition included radical alterations to the interior: a long double-parlor was created by removal of the south wall (now supported by the faux-grained beam and columns); the stair orientation would have been flipped 180 degrees and the square balusters installed; and the kitchen was probably added.

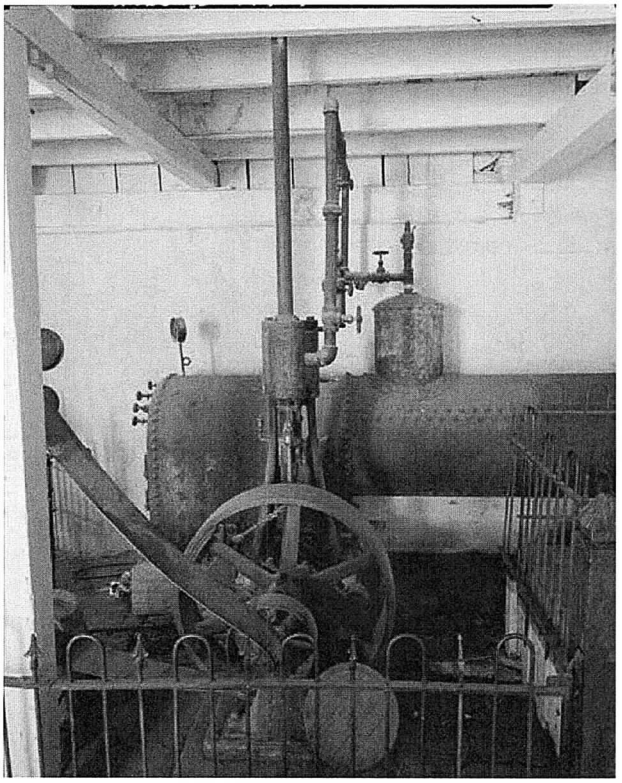
—Lesley M. Gilmore



Gilbert Brewery. Photo by Robert Lyon. HABS MONT, 29-VIRG, 8-2.

5. Gilbert Brewery
Hamilton at Cover Street

The Gilbert Brewery was established by Henry Gilbert, Christen Richter, and William Smith in 1863, as the first brewery in Montana. The current building was first erected in 1864. Modifications and additions over time accommodated the growth of the business. Little has changed since the images depicted on the 1884 Sanborn Fire Insurance Maps, with the exception of an "earth beer cellar" located northwest of the brewery, on Hamilton Street (shown from 1904 through 1922). Dur-



Gilbert Brewery. Boiler and belt drive. Photo by Robert Lyon. HABS MONT, 29-VIRG, 8-7

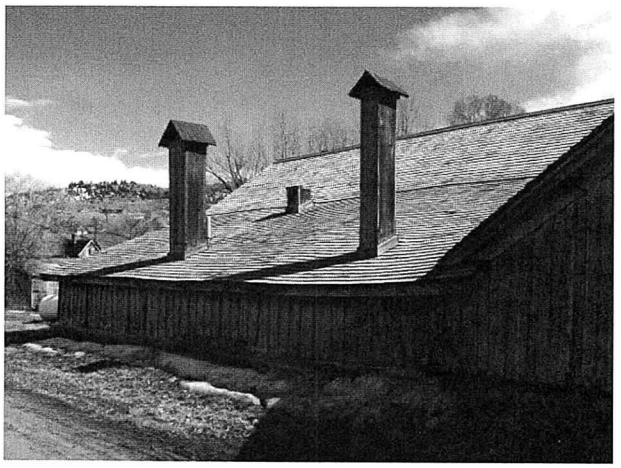
ing Prohibition, the Gilbert Brewery supplanted beer production with that of soft drinks. Attempts to reintroduce beer brewing after the repeal of Prohibition in 1933 were not successful.

Charles Bovey purchased the brewery in the 1940s and operated it as a museum from 1946 through 1973. The original steam boiler, brew kettles, furnaces, vats, barrels, tanks, machinery, and tank rooms were – and remain – an attractive visual connection with the operation of the brewery.

Like many buildings in Virginia City, the Gilbert Brewery is built into a hill, on a native stone foundation. The main mass of the building is dominated by two cross-gable wings – the one gabled roof portion behind the entry façade and the second wing under a dual-sloped roof that extends to a short wall at the high side of the hill. These building parts form a large 54.5' by 60.5' near-rectangular mass, which is penetrated by a two-story stone mass with a pyramidal roof; this contains the kiln. Chimneys indicate where sources of heat were; ventilators are located at points of exhaust. The south façades face town with false fronts concealing the roofs beyond. The heavy timber construction of the building is faced with a board-and-batten finish typical of the Rocky Mountain region. The false fronts are finished with frieze boards and box cornices indicative of a thriving enterprise.

The Gilbert House is the large partially stone structure on Wallace Street south of the Brewery. Parts of the structure date to c.1864. The Gilberts raised fifteen children in this house. The cabins, and the vintage style gas station, to the east of the brewery comprise "Daylight Village," which was constructed by Charles Bovey in the late 1940s – early 1950s.

—Lesley M. Gilmore



Gilbert Brewery. North elevation. Photo by Richard Gibson.

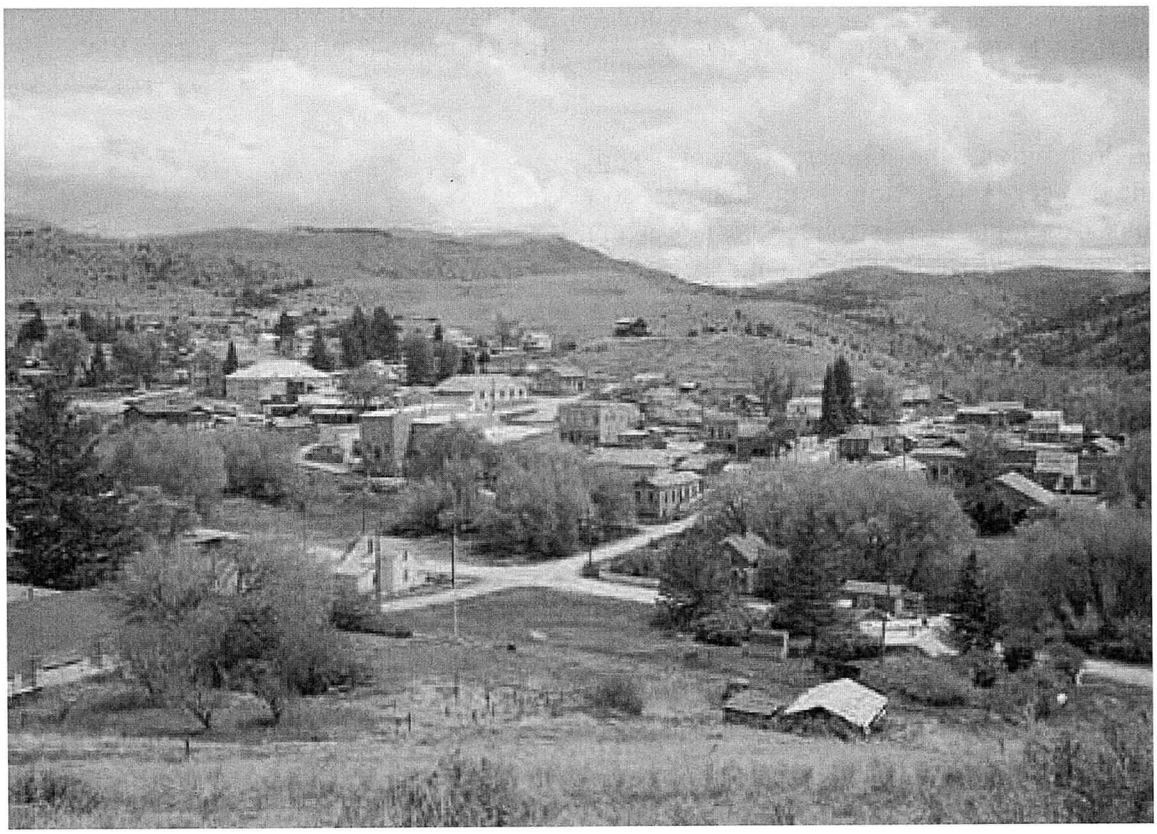
TOBACCO ROOT MOUNTAINS

Origins of the name Tobacco Root, given to the mountain range circumnavigated by the Southeast Tour, are unclear. John Willard (*Adventure Trails in Montana*) says "Indians and early trappers found a root in these mountains that, when dried and mixed with larb, made a suitable substitute for real tobacco. The root was a species of mullein."

Tansley and Shaffer (Montana Bureau of Mines & Geology Memoir 9, 1933) attribute the practice of drying a species of mullein and mixing it with kinnikinic to replace tobacco to John Edwards, a prospector from Flint Creek, in the 1860s. He also gave the name to the hills in which the root was found. Kinnikinic was a leaf-bark mixture, including sumac and dogwood leaves, smoked by Indians and pioneers in the Ohio Valley in the 18th Century. It was probably more or less the same as the *"larb"* mentioned above.

Other sources have reported the root to be a variety of the bitterroot, Montana's protected state flower. Shoshoni Indians reportedly cooked the root and ate it, and it supposedly smelled like tobacco.

—Richard Gibson



General view of Virginia City. Photo by Robert Lyon, HABS MONT, 29-VIRG, 17-.

NEVADA CITY SITES

Note: Please refer to Kingston Heath's essay, *The Finney House in Nevada City, Montana and the Notion of Heritage Transformation*, p. 67, this volume, for more information about these locations.

Richard Cabin

This modest log building is one of the original buildings in Nevada City. Originally haling from Chambersburg, PA, lawman John Xavier Beidler built this cabin in the summer of 1863. Its log roof and log construction are indicative of a town without a sawmill; one was not to come to Virginia City until the Spring of 1864. The large hewn logs are joined flush at the corners with half-dovetail corner notching; saplings and wood scraps form the chinking. This simple one-story gable-fronted building has one window (six-over-six single-hung) and one door, symmetrically located on the front façade. The low-sloped roof is typical of the early sod roofs in this area. The sod and snow load were supported by the pole log roof structure carried by purlins bearing on the gable walls.

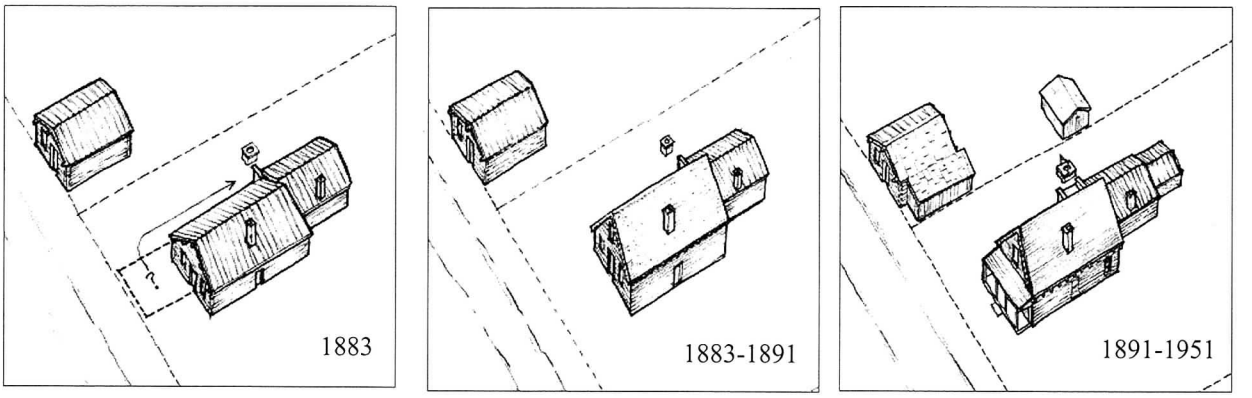
Oral history indicates that Beidler was instrumental in the immediate hanging of George Ives, who had requested a delay until the day after sentencing. Beidler stood on his cabin's roof and injected into the court proceedings held on the streets of Nevada City: "How long did [Ives] give the Dutchman [the murder victim] to even write his mother a letter. He gave him no time and therefore Ives should be hanged immediately in the same manner." Beidler watched the hanging of George Ives from this roof.

Later resident Alicidi Richard called this cabin home until the early 1900's. Some of the existing furnishings were Alicidi's; they are typical of a miner's cabin.

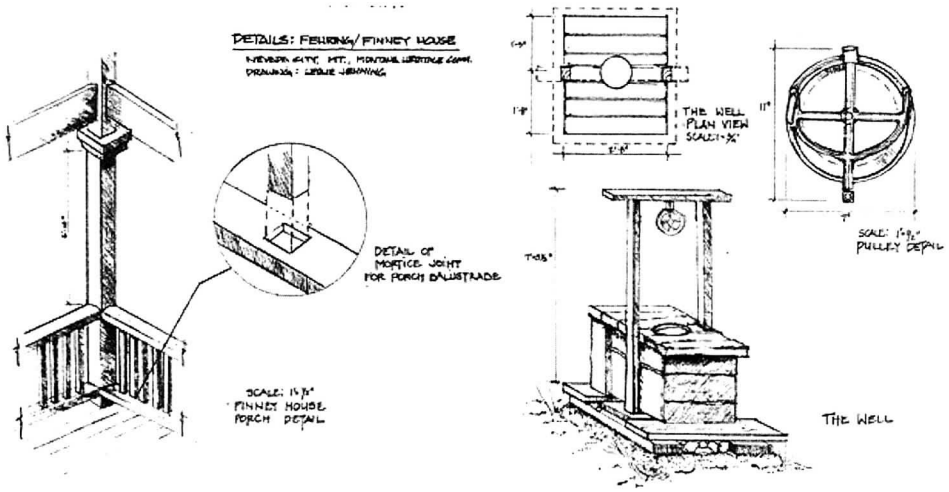
—Lesley M. Gilmore

Finney Summer Kitchen

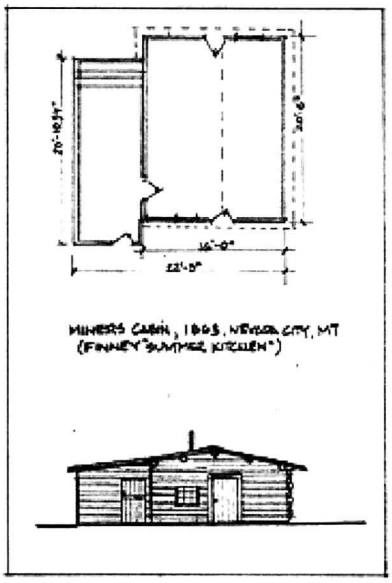
This original Nevada City building was adopted as a summer kitchen by the Frank Finney family after it had been abandoned by others. A thick coat of whitewash on the inside symbolizes a regular spring cleaning ritual. Built in 1863 in this same location, this cabin bears many similarities with the Richards Cabin down the street. It is also a simple one-story gable-fronted building with one window (six-over-six single-hung) and one centered door in the front façade. A shed-roofed addition on the south side continues the

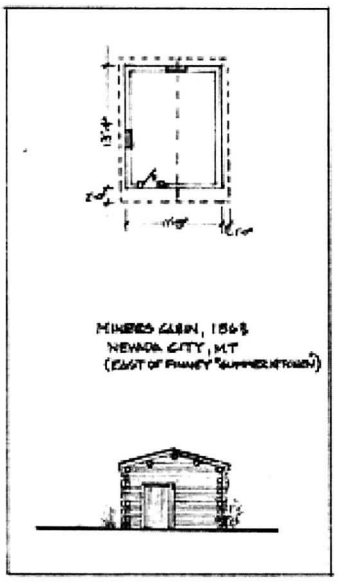


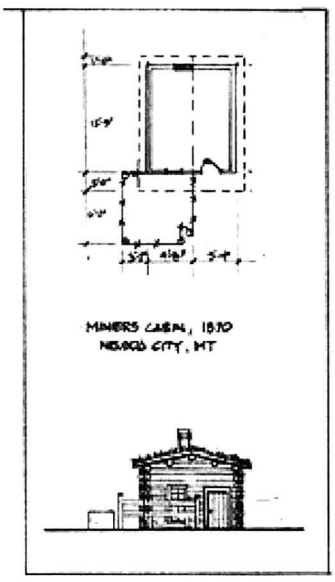
Evolution of the Finney House. Drawings by Leslie Jehnings. Courtesy Kingston Heath.

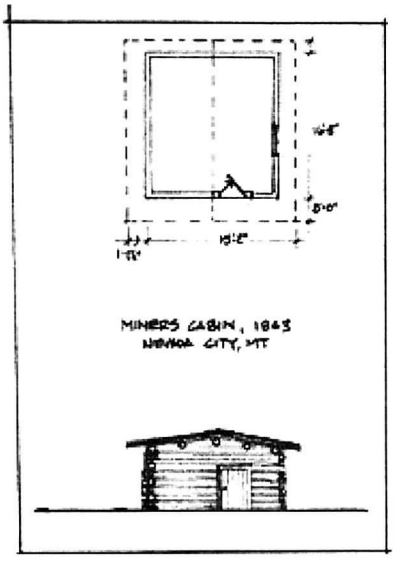


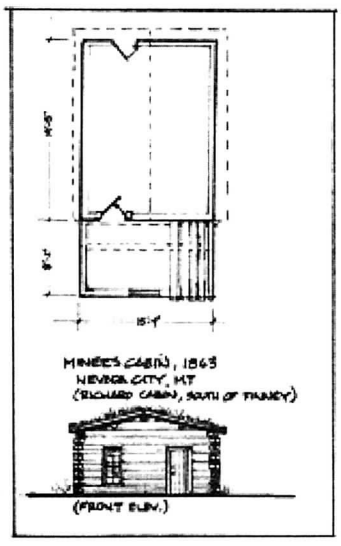
Left: Finney house details. Below: Six miner's cabins including Richard Cabin (bottom center) and Finney house (bottom right). All drawings by Leslie Jehnings.

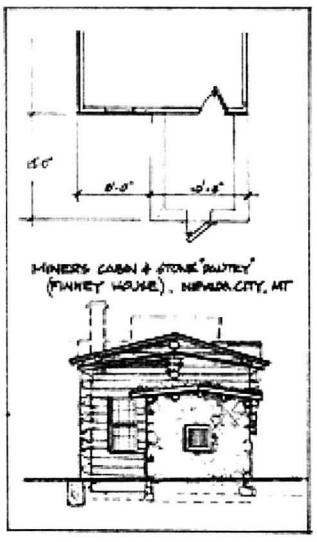












slope of the cabin roof, and has a rough board finish. A boxed soffit conceals the cabin's roof framing, which is probably of poles; it is conceivable that the soffit boards came from the sawmill in Bannack, or that they were hand-sawn. The concrete at the foundation is a c.1950s repair method favored by Bovey's restoration team.

—Lesley M. Gilmore

Log Building in Chinatown

Ten percent of Montana's territorial population in 1870 was Chinese, most of whom had come from the southeast coast of China's Kwangtung province. They originally entered through California and followed the progression of mining and resultant settlement in the West. In 1870, Chinese companies bought the right to rework some of the claims in Alder Gulch – they had not been allowed by law to own claims when it was first played out. Ultimately, the Chinese persistence in recovering gold from abandoned claims helped stall the decline of Virginia City. The Chinese also opened wash houses and stores, located at the fringes of town. In 1894, the Protective Labor Union was established, excluding Chinese from working in the area. Only 25 Chinese residents remained in Virginia City by 1900.

The Chinese, mostly single men, continued their traditional customs and established organizations such as the Chinese Masonic Lodge and The Chinese Temple, located in the elaborate Joss House, a two-story log structure, no longer extant, that stood at the west end of Wallace Street in Virginia City.

Nevada City's Chinatown has seven buildings moved from different locations. The log 1½-story Chinese store appears to have originally been a dwelling; a transformative storefront and false-front were never added. The roof may have been steepened and the attic expanded to contain living quarters when the first floor was used to sell merchandise.

—Lesley M. Gilmore



Iron Rod Post Office. Built 1868 about 10 miles north of Twin Bridges; moved to Nevada City in 1976. Photo by Richard Gibson.



Sullivan's Saddlery. The building was built in 1847 in Ft. Benton, Montana. Photo by Richard Gibson.

ALDER AND LAURIN

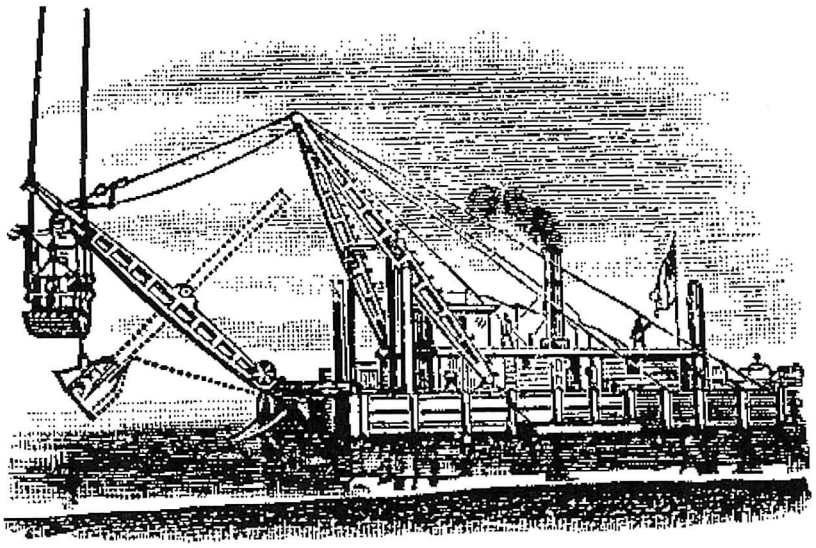
The fortunes of Alder and Laurin (pronounced Lah-RAY) were tied with those of Virginia City, although the wide, fertile valley here supported ranching along with placer mining in Alder Gulch. French-Canadian Jean Baptiste Laurin was a prominent rancher who ran the mercantile in his namesake town, and also built St. Mary's Catholic Church here.

The stream bed of Alder Gulch contains miles of gravel mounds, the result of dredges, which were huge contraptions that churned the river sediment through on-board sluice systems that separated out gold. The landscape was also altered by hydraulic mining, a technique that used high-pressure hoses to wash away hill slopes to concentrate any gold the soil contained. Most of the hydraulic mining post-dated the peak of activity, beginning in 1867 and continuing through the 1880s. Dredge mining predominated from 1896 to 1941.

The combined total gold production from Virginia City and Alder Gulch is estimated at almost $54,000,000 in value.

About eight miles south of Virginia City, Alder and Laurin, in the Greenhorn Range, lies Barton Gulch, one of the oldest dated Paleo-Indian sites in Montana. Regarded as a type site for the Blackwater Draw Paleo-Indian archaeological culture, and believed to be a Clovis culture, the site is dated at 9,400 radiocarbon years before present.

—Richard Gibson



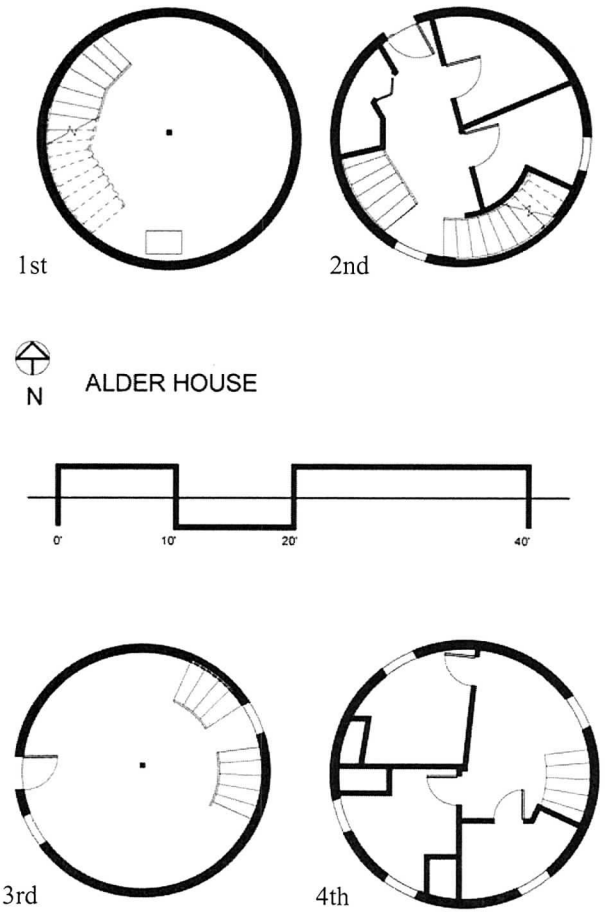
Line drawing of a gold dredge.

ALDER–LAURIN SITES

Grain Bin House, Alder

This large grain bin house, converted in 2002, is the first of its kind in Montana and the inspiration for several subsequent grain bin houses in the area. It is included here as an example of the continuing construction tradition of vernacular forms and methods. Measuring four stories high and 24 feet in diameter, the impetus for its construction arose from a vernacular mindset that values and employs practicality, economy, and an appreciation for forms indicative of the Montana ranching tradition. Grain bins come in standard diameters, but their heights are determined by the number of rings one chooses. For grain bin houses, it takes three rings riveted and welded together to constitute a house story. For builder Ray Smail, the bin's circularity posed several construction challenges, especially the insertion of doors and windows that, like any vernacular building attempt, were overcome through trial, error, and eventual discovery of how to transform building ideas into habitation realities.

—C. Riley Augé



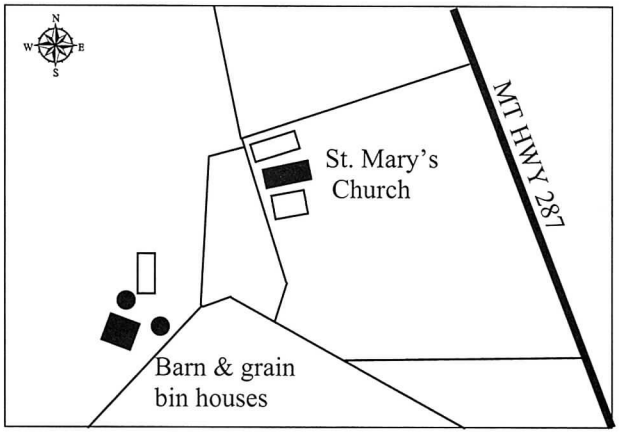
Alder grain bin house. Fieldwork by Rolene Schliesman and C. Riley Augé. Drawings by Jackie Little. Levels are indicated.



Alder grain bin house. Photo by Rolene Schliesman.

St. Mary of the Assumption, Laurin
Architect: Charles S. Haire
Built: 1899-1900

This well-preserved sandstone Gothic Revival church features extraordinarily high-quality craftsmanship, including its shouldered, three-story bell tower with octagonal roof, and stained glass Gothic arched windows. Mortar joints with incised tooling provide definition to the rubble walls laid in courses. The roof and upper exterior wall of the chancel retain

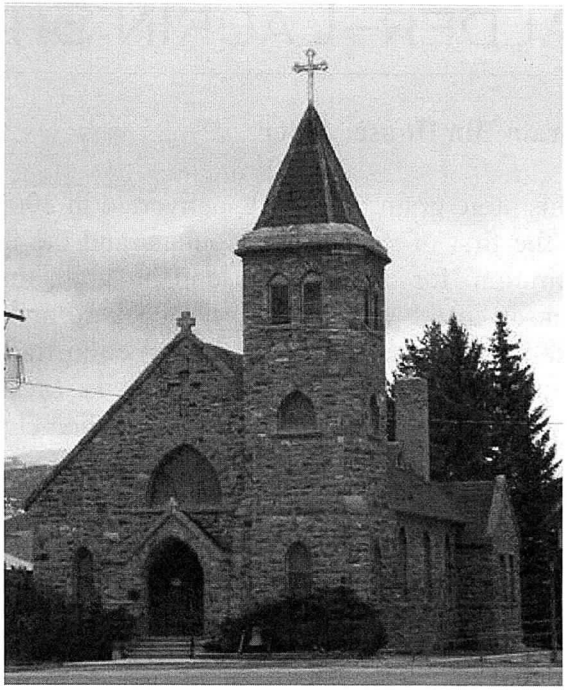


Sketch map showing sites in Laurin. Map by Richard Gibson.

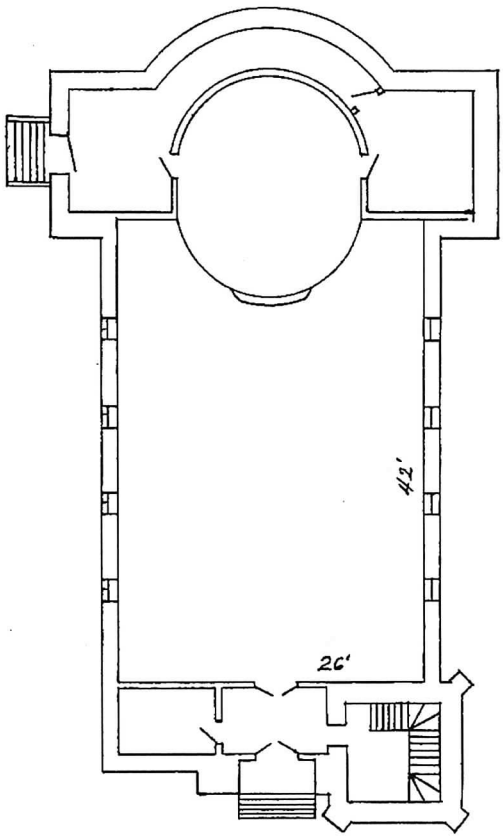
their original fish scale patterned metal shingles. The primary façade is accentuated with three stone crosses—two at the gable apexes of the main roof and the first floor entrance, and the third recessed within the gable end wall. Small gabled dormers with lancet windows are uniformly aligned roughly half-way up the roof, and provide additional interior illumination.

The roughly 31' x 72' church is designed in a modified cruciform ecclesiastical plan, and the interior remains essentially unchanged. Elaborate oak trusses with elaborate brackets continue to support the vaulted ceiling, and oak wainscoting, pews and furnishings adorn the nave. Within the chancel, a nearly full-height oak reredos stands behind the altar. The stained glass was produced by the Forman Ford Company of Minneapolis; look for the window with the memorial glass panels dedicated to the benefactors of the church.

St. Mary of the Assumption is the largest and most sophisticated of the fewer than 20 buildings in the community. It has served as the primary Roman Catholic church for a widely-dispersed mining and agricultural population in the Ruby Valley. Laurin's population waxed and waned during the short-lived gold



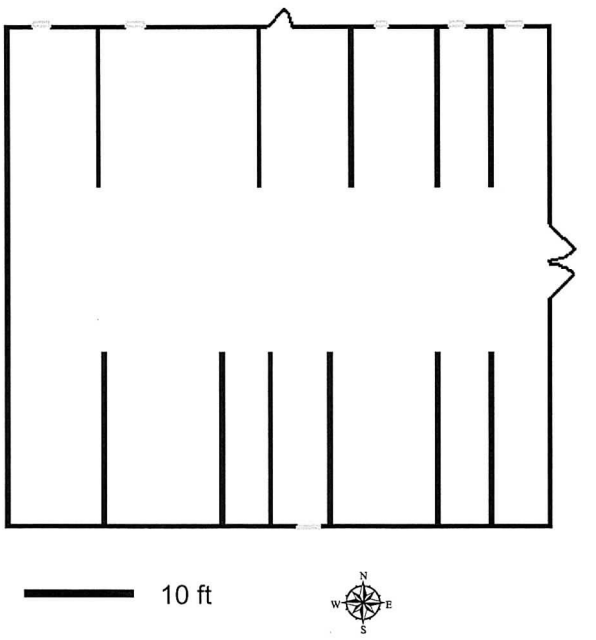
St. Mary of the Assumption Church, Laurin. Photo by Rolene Schliesman. Below: Existing plan, from National Register nomination form.



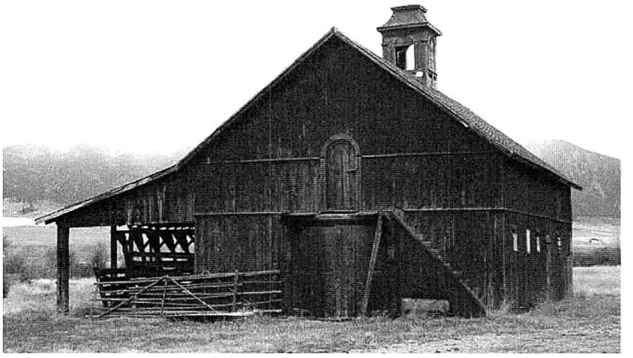
mining boom in Alder Gulch, but by the late 19th century, the community had stabilized to an estimated number of at least 200. St. Mary's construction is the result of an $8,000 bequest by local businessman Jean Laurin and his wife, in recognition of the need to replace the smaller, 1875 frame church which still stands next door.

Modifications have been minor. Between 1956 and 1959 the semi-circular chancel was extended 5' into the nave, and the lights were replaced with contemporary spotlights. The stained glass windows have been covered with protective Lexan. In 1984 the chancel was expanded into a circular shape.

—Dena Sanford



Gothic barn, floor plan. Fieldwork by Rolene Schliesman and C. Riley Auge. Drawing by Richard Gibson.



Gothic barn, Laurin. Photo by Rolene Schliesman.

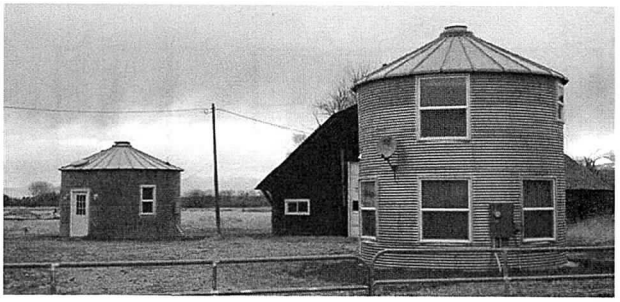
Gothic Barn, Laurin

Built c. 1892 by Birt Sivers, this 50' by 46' barn was an integral component of a major stagecoach stop in Laurin. The barn's size and structural elements, including 8" x 8" joists, heavy 6" wide wooden plank flooring in the dozen large animal stalls, covered wagon stalls, and separate loft accommodations (presumably for stable-hands), indicate this was a thriving business. In addition to structural quality, the barn's builder apparently was also concerned with expressing a visual aesthetic. To this end he incorporated a repeated scrolled decorative motif above all the windows and doors, including the large double livestock doors on either end of the structure; sided the entire structure in board and batten, roofed it with thick asphalt shingles, and topped it off with an especially elaborate Mansard cupola sided with a fluted fan design on all four sides. He even added decorative finishing to the intersection of the framing timbers of each animal stall.

—C. Riley Augé

Grain Bin Houses, Laurin

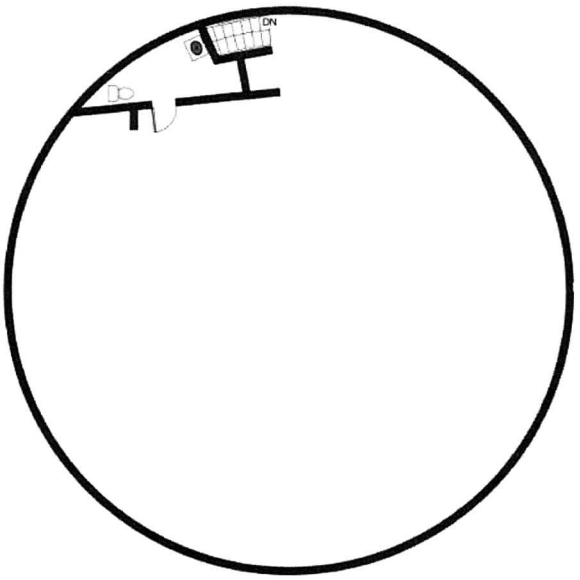
Located adjacent to the Gothic Barn are two small grain bin houses. In keeping with the historic usage of the stagecoach stop and the continuation of a modern Montana vernacular ranching form, the current property owner has had two grain bins erected to use as occasional accommodations. The larger of the two, a two-story 18'-diameter bin features a one-room kitchen-living space on the lower level



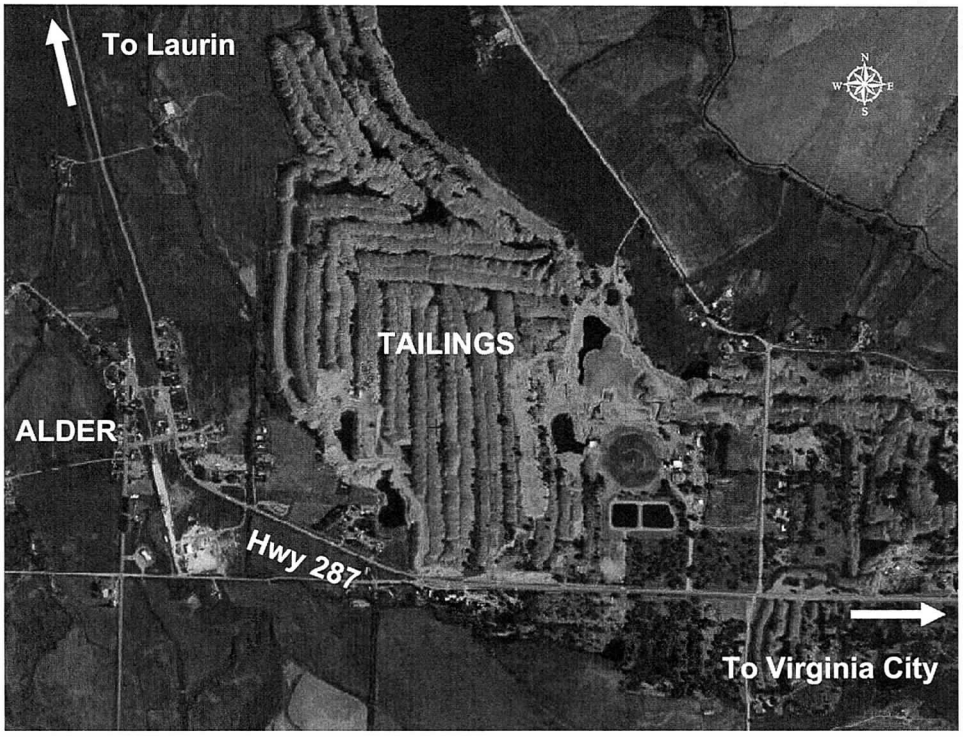
Two grain bin houses near gothic barn, Laurin. Photo by Rolene Schliesman.

and a bedroom and bath on the upper level. The smaller "studio" bin provides a one-room, one-bath accommodation on a single level. Grain bins comprise a ubiquitous element of ranching landscapes. The conversion of this utilitarian structural form into an inhabitable space illustrates an innovative application of vernacular *bricolage* that epitomizes the Western frontier spirit for practicality, economy, and resourcefulness.

—C. Riley Augé



Laurin grain bin house, second level floor plan showing bedroom and bathroom. Structure is 18' in diameter. Fieldwork by Rolene Schliesman and C. Riley Augé. Drawing by Jackie Little.



2005 aerial photo showing extensive dredge tailings in Alder Gulch upstream (right) of town of Alder. Photo from Montana Natural Resources Information System.

TWIN BRIDGES

As Lewis and Clark ascended the Missouri River in 1805, they encountered two places where three major rivers forked. The first three rivers came together near present-day Three Forks, Montana, to form the Missouri; the explorers followed the western branch, which they named the Jefferson River. In early August 1805, at the present site of Twin Bridges, they named the three headwaters of the Jefferson for their President's "cardinal virtues": Philosophy, Wisdom, and Philanthropy. Today these streams are, respectively, the Beaverhead, Big Hole, and Ruby.

M.H. Lott came to Montana in 1862, and with his brother John T. Lott, settled in the Ruby Valley in 1864. In 1865 they built a bridge across the Beaverhead River, and later built another bridge across the Beaverhead at the Point of Rocks. The Lott brothers continued development of roads and promoted settlement of the town, which was incorporated in 1902, with M.H. Lott as the first mayor. Twin Bridges' post office was established in 1869. The town grew up around the private toll bridges across the rivers, and became an important stage stop. The state's first normal school (teacher's college) was built here in 1889, but after the normal school was moved to Dillon the facility in Twin Bridges became the state orphanage. It housed as many as 5,000 children at its peak of operation; it was closed in 1975. The community today is a center for the neighboring ranchlands, as well as a fly-fishing destination.

Beaverhead Rock, famous as the natural landmark recognized by Sacagawea as Lewis and Clark explored for a way west, is about 13 miles upstream (southwest) of Twin Bridges.

—Richard Gibson

TWIN BRIDGES SITES

Doncaster Barn
Four miles north of Twin Bridges

Noah Armstrong, superintendent of the Helca Consolidated Mining Company of Glendale in the Pioneer Mountains, and operator of a pharmacy and general merchandise store in Twin Bridges, became wealthy enough to become a breeder of Thoroughbred racehorses. He built this barn about 1883 to house the brood mares he brought to Montana from Illinois. One of the first foals born in the spring of 1886 was Spokane, the only Montana-born horse to win the Kentucky Derby—in 1889, Montana's year of statehood. Spokane set a Derby speed record, still unbroken, and took the $4,970 purse.

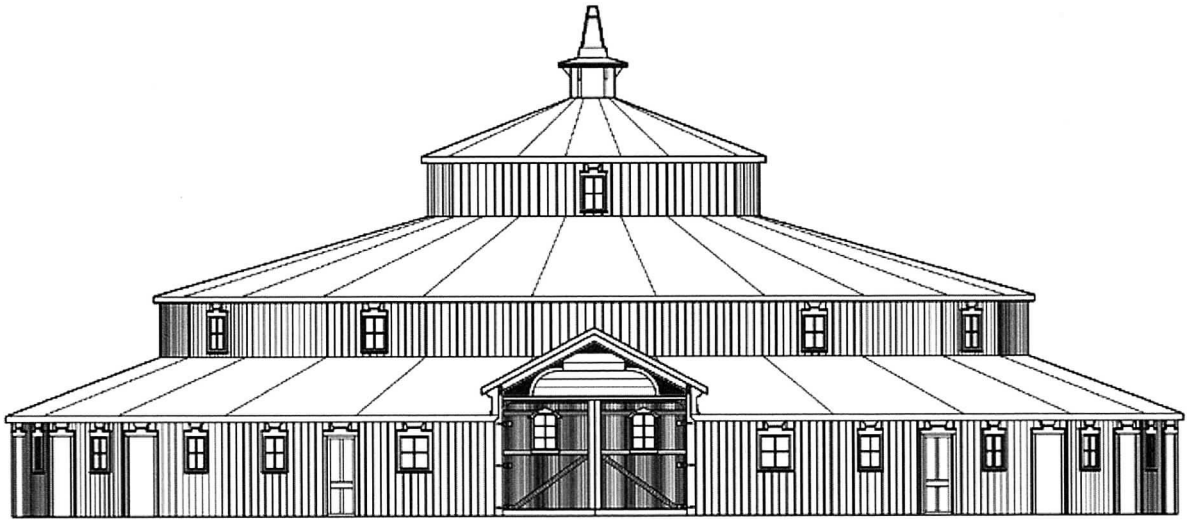
Twenty-four stalls, each 12 feet square, line the outer circumference of the ground level, with supplies in the central core. The circular hall between was an exercise pathway during bad weather. Feed was stored on the second level, which also contained living spaces for groomsmen who tended the horses during foaling season. Chutes from the second level

allowed for the fast dispersal of feed to the stalls. The central uppermost level housed a water tank that supplied each of the stalls. The barn has an inside diameter on the first floor of about 100', and the height is 48' to the third-level ceiling, surmounted by a 12' tower.

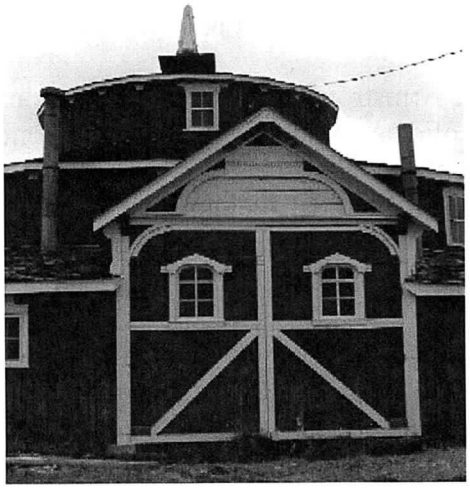
The name Doncaster honors one of Noah Armstrong's favorite horses, one of the first studs on the ranch. The ranch covers 4,080 acres of well-watered Jefferson Valley land. Owners Allan and Phyllis Hamilton, together with ranch manager George Trischman and local carpenter Bob Lancaster, undertook a historically accurate restoration of the barn in the late 1990s. The Montana State Historic Preservation Office awarded them the 2005 Governor's Special Award for Preservation for that effort.

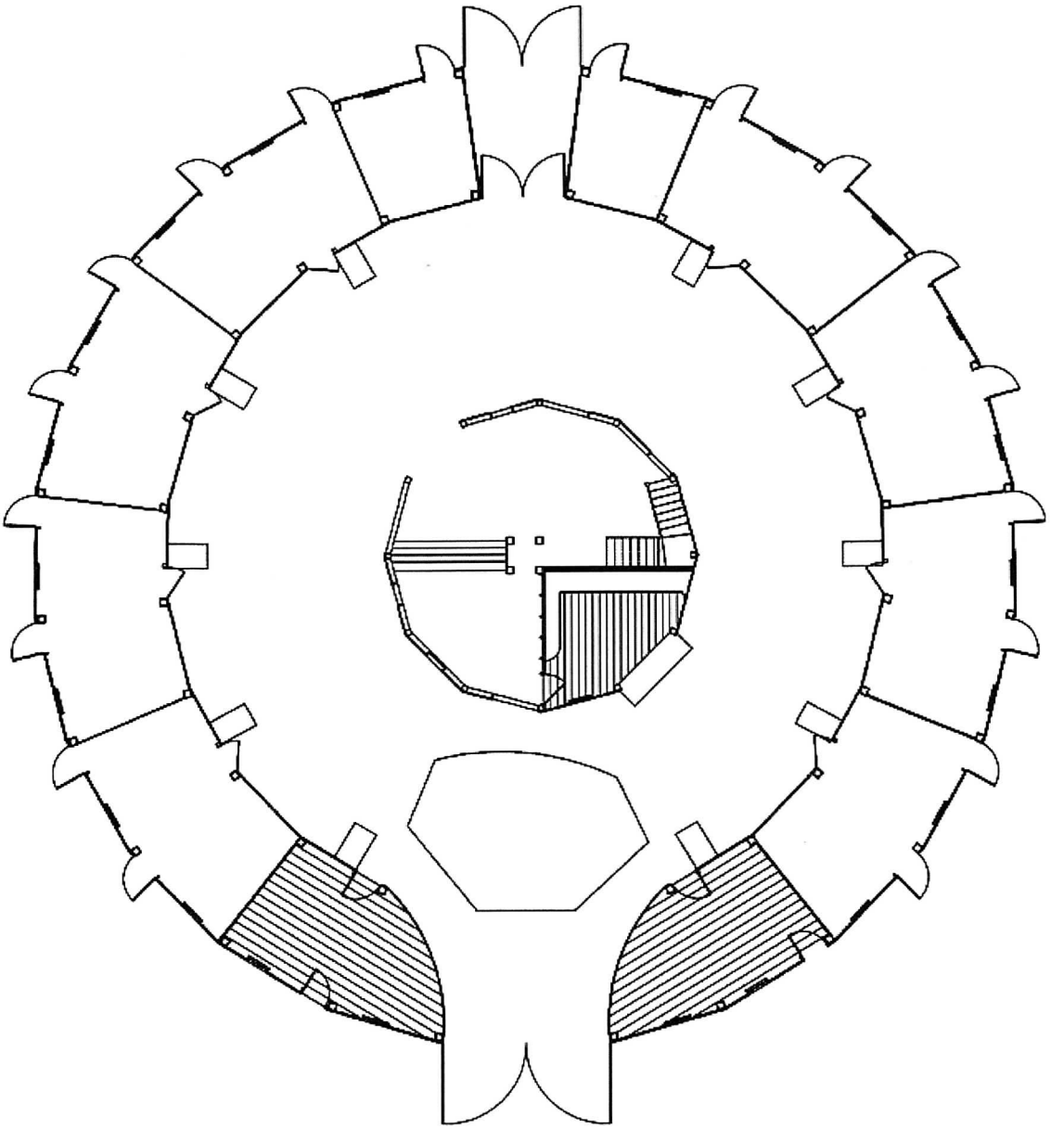
—Richard Gibson

Doncaster barn. South elevation. Fieldwork by Maire O'Neill and Seth Burwash. Drawing by Seth Burwash. Photos at bottom give a general view of the barn (lower left) and detail of the entry (lower right). Photos by Maire O'Neill.









Doncaster barn. Floor plan. Fieldwork by Maire O'Neill and Seth Burwash. Drawing by Seth Burwash.

Madison County Fairgrounds
Architect: WPA Engineer C.D. Paxton
Builders: Tosten Stenberg, Fred Sommers

Descriptions in this section all written by Dena Sanford. All line drawings from HABS MONT, 29-TWIB-1.

The Madison County fairgrounds occupy a scenic but geographically inappropriate location in the Ruby Valley, on a floodplain near the confluence of three rivers—the Ruby, Beaverhead and Big Hole. The 50-acre fairgrounds are bordered on the east by the Beaverhead River, to the north by Highway 41 and to the south and west by farmland.

While mining and agriculture had served as the economic development engines for the area in the late 19th and early 20th centuries, by the mid-1930s Madison County was experiencing particular hardship and high unemployment. Over 1,400 people—more than half of the county's workforce—were unemployed. Like thousands of other local governments, the county applied for New Deal financial assistance programs to stabilize the economy and materially improve the local residents' quality of life. The county acquired the property in 1930, and remodeling it served a civic purpose by providing a primary venue for community events. County fairs had been held at this location for 40 years, but had been privately operated with some county funding.

Construction for the fairgrounds began in 1936 through the Works Progress Administration (WPA) and was largely completed by 1937. The core of the fairgrounds consists of seven buildings built by the WPA. All but one of the original buildings were removed, with the survivor remodeled to match the rustic style of the new construction. The buildings are arranged in a rough semicircle with the pavilion at one end near the fairground entrance and the grandstand at the other.

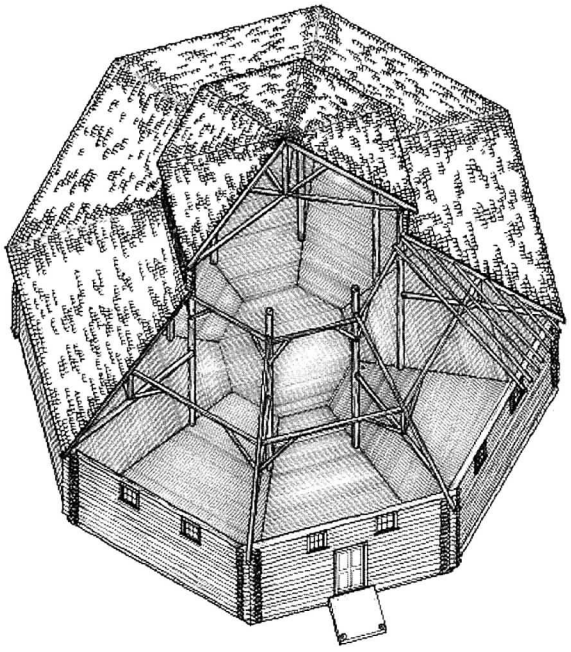
The fairgrounds' rustic-style log architecture represented the integration of two federal program policies. From a design standpoint, the hand-hewn log architecture was "appropriate" to its setting and represented a construction technique that emphasized high quality craftsmanship and design using locally procured building materials. The National Park Service promoted this design aesthetic, and was the agency responsible for overseeing thousands of state and local park designs in the 1930s. Economically, the labor-intensive process met the goals of the WPA program by allowing a longer period of employment to a large number of people.

WPA engineer C.D. Paxton drew up the original plans for the buildings, while Tosten Stenberg directed construction. Stenberg was well known for his work on large log structures in Montana and Yellowstone National Park. At age 65, Fred Sommers of Twin Bridges was brought out of retirement with a special waiver to supervise work on the project. He served as the general foreman and was a highly skilled carpenter and builder.

To finish the complex design, landscaping included rock-faced concrete pilings that mark the entrance to the grounds. Many large log picnic tables and concrete barbeque pits that date to the 1930s survive.

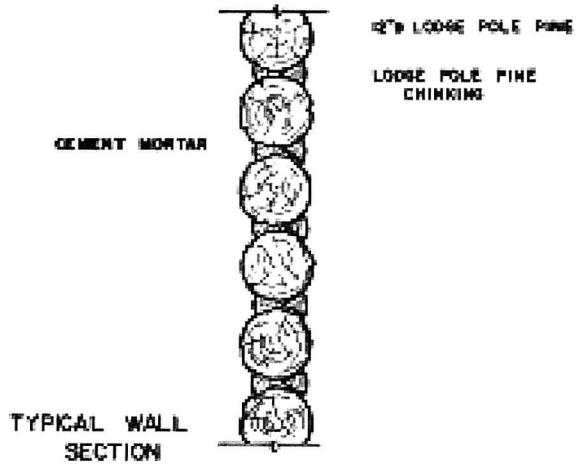
Pavilion
Built: 1936

The octagonal Pavilion is the dominant building in the Depression Era complex. It is built of logs and features an octagonal lantern. The lack of linear taper motivated the use of lodgepole pine, which was harvested near Ramshorn Creek 15 miles away. The logs measure 37'-8" on a side, are connected with saddle notching, and have crowns cut on the bias. Two multi-light casement windows are set



Octagonal pavilion. Cut-away isometric view. Drawing by Kevin J. Lippitt.

into each wall, near the exposed pole roof rafters. The lantern is supported by eight large poles set in concrete, allowing for a 100'-diameter open floor space. Entrances are on the northeast, south and northwest sides, sheltered by one-story gabled roof awnings supported by log posts and pole railings.



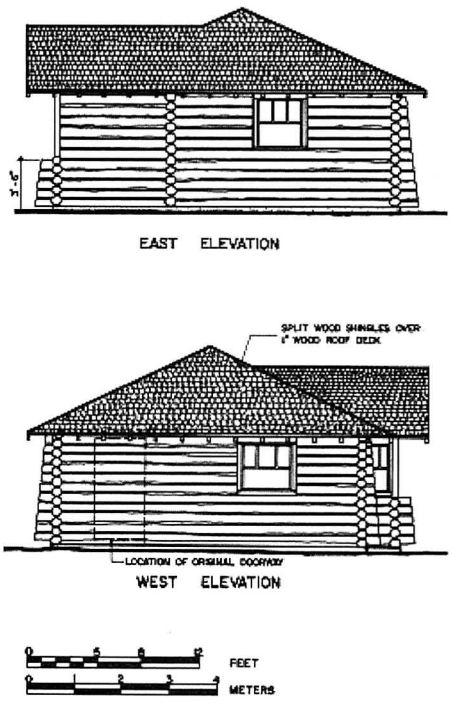
Octagonal pavilion. Typical wall section. Drawing by Kevin J. Lippitt.

In 1936 the WPA obtained sufficient funding to install a white oak floor. The flooring was laid in eight units, with all ends cut on a bias. A 1983 flood severely buckled the floor.

The Pavilion has served as a valuable social facility for the community over the years. In addition to service as a fairgrounds main hall, it has hosted dances, roller skating, wedding receptions, political rallies, church functions, group suppers, auctions, and flea markets.

Caretaker's House
(HABS Name: "Grounds Keepers House")
Built: 1936

The Caretaker's House is located near the entrance to the fairgrounds. The small, hipped roof house is characterized by distinctive battered corners accentuated with log extensions. The logs are connected by saddle notches, with increasingly shorter crowns cut to slope inward with the increase in wall height. The

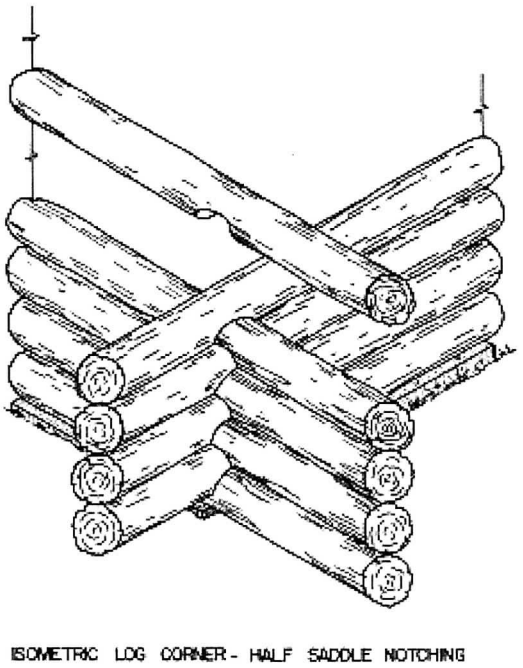


Caretaker's House. Elevations. Drawings by Mikel M. Kallestad.

fir logs were harvested in the nearby Tobacco Root Mountains. The building measures 23'-6" x 25'-7" and windows are 3-over-1. The primary entrance faces south, created by a projecting cross gable. It formerly had an open porch, now enclosed with 3/1 fixed windows. The interior has plaster board walls and slab log ceilings. To prevent damage from occasional floods, the building was raised 30" on a new concrete foundation (date unknown), and the interior has been remodeled.

Livestock Shed/Dairy Barn
Built: 1936

Originally used as the horse barn, this 20' x 123'-3" lodgepole pine building is a twelve-bay post and beam structure enclosed at the ends by three-sided log cribs. While the bark has been stripped away, some of the cambrium layer remains in place for decorative effect. The cribs' logs are connected with half-saddle notches and the gable ends are infilled with vertical boards. Each bay defines an individual animal stall. The north side has been enclosed by a stud wall, but the south side retains its ten original pole gates and steel hardware.



Livestock Shed Detail showing half-saddle notching. Drawing by Garth M. Balint.

Cattle Barn and Sheep Barn
(HABS name: "Stock Barns 1 & 2")
Built: 1936

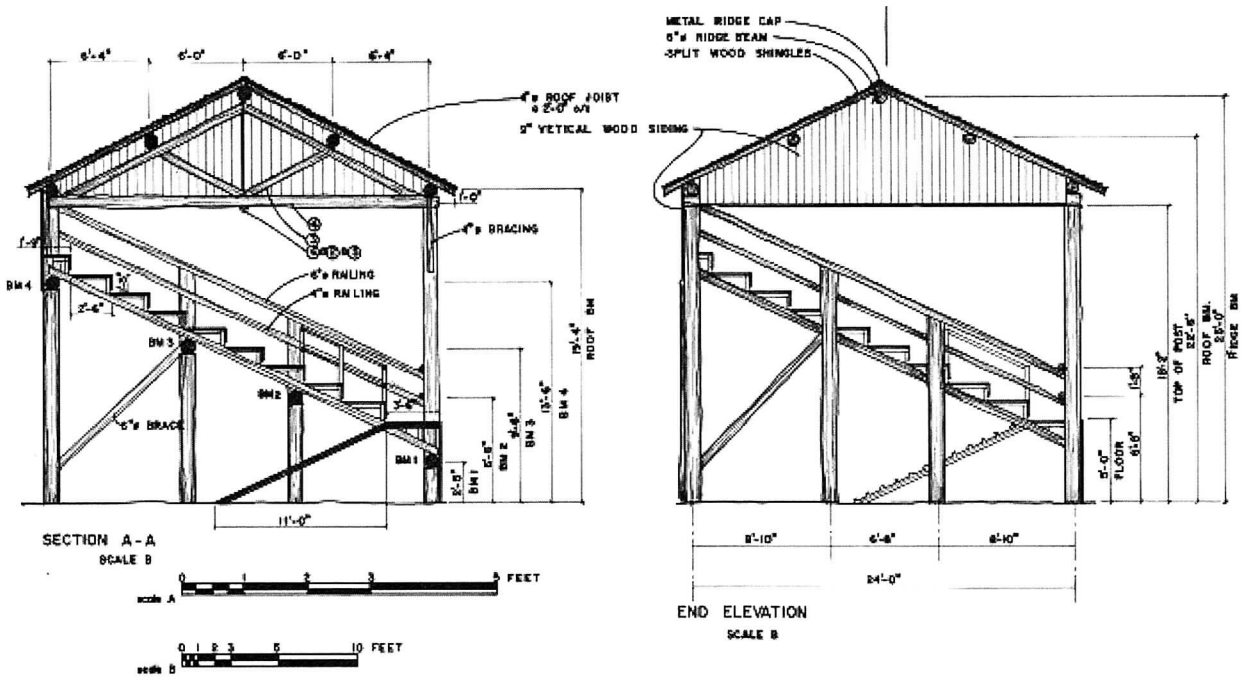
These two log, monitor roof buildings are nearly identical in design and detailing. They measure 31'-9" x 74'-6", with the corners connected by saddle notches. The gable ends are finished in frame construction. Large Z-brace double doors are located at the east and west ends. Shed-roofed, small-animal pens have been added to either side of both barns. The eight-bay interiors are divided into separate stalls.

Grandstand
Built: 1936

Facing the remains of a former half-mile race track, the Grandstand boasts a seating capacity of over 2,000—reported to be one of the largest in the state upon its completion. It measures 150' x 25'-5", and the gable roof shelters ten tiers of seats. It is supported with fir log pilings, set about 6' apart. Both grandstand and track replaced an earlier structure and a one-mile track built by Mortimer Lott in 1889.

Square Building
Builder: Mortimer Lott
Built: 1894

The 1½-story Square Building is the only facility that predates the WPA development. Originally an exhibit building, it was remodeled during the 1930s and is of post and beam construction covered with log veneer. The gable roof and gable ends are covered with cedar

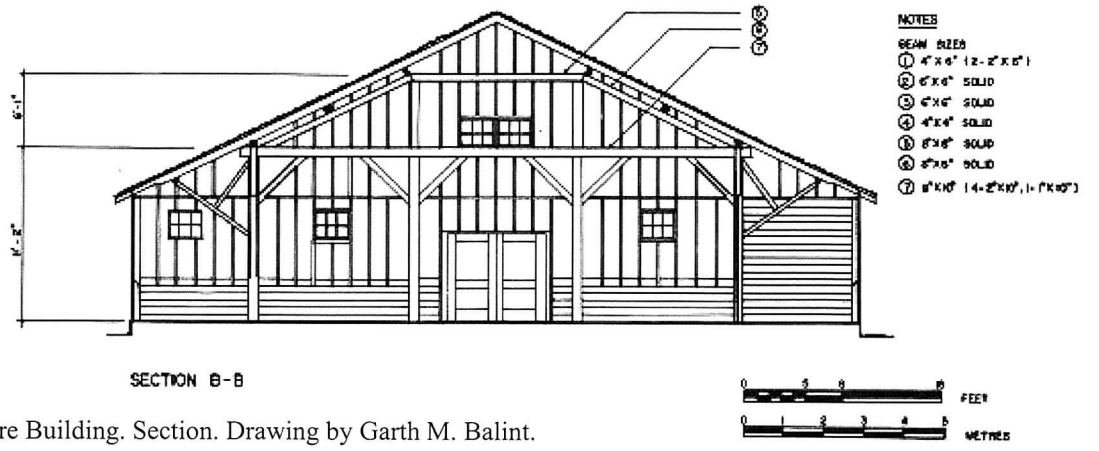


Grandstand. Section and elevation. Drawings by Kevin J. Lippitt.

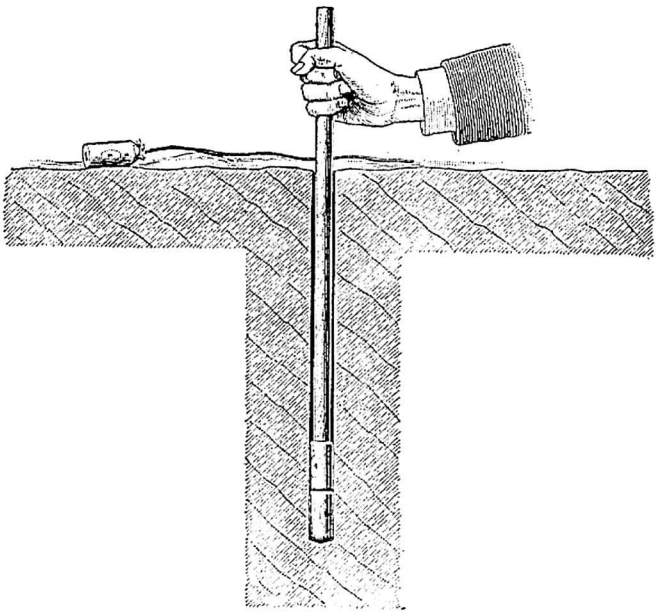
shingles. One-story porches sheltered by gable roofs are located on the north and south walls. Small, six-light casement windows are located near the eaves. The windows and a hardwood floor were added by the WPA. The building has served as a central gathering spot during fair events, and is used extensively as a local gymnasium.

Bandstand
(HABS name: "Gazebo")
Built: 1937

The octagonal Bandstand is an open post and beam log structure built on a concrete foundation. The foundation is finished with a random rubble stone veneer. The walls are 10'-8" on each side. The roof rafter poles tie into a center, notched round block. Pole railings surround the thick plank floor.



Square Building. Section. Drawing by Garth M. Balint.



When Butte's miners tamped dynamite into the narrow drill holes in underground mines, the danger of explosion from tapping too hard was always present. The warning "Tap 'er light" evolved into the standard salutation upon departure, replacing banalities like "good-bye" or "farewell." The phrase has found its way into the vernacular language of present-day Butte, so until you return to southwest Montana, we bid you all a friendly and warm

Tap 'er light!

INDEX

This is not intended to be a comprehensive index, but rather to serve as a quick reference to locations and specific property names in the guidebook, as well as to the topical items contained in sidebars and vignettes. Street name references are in Butte unless noted otherwise.

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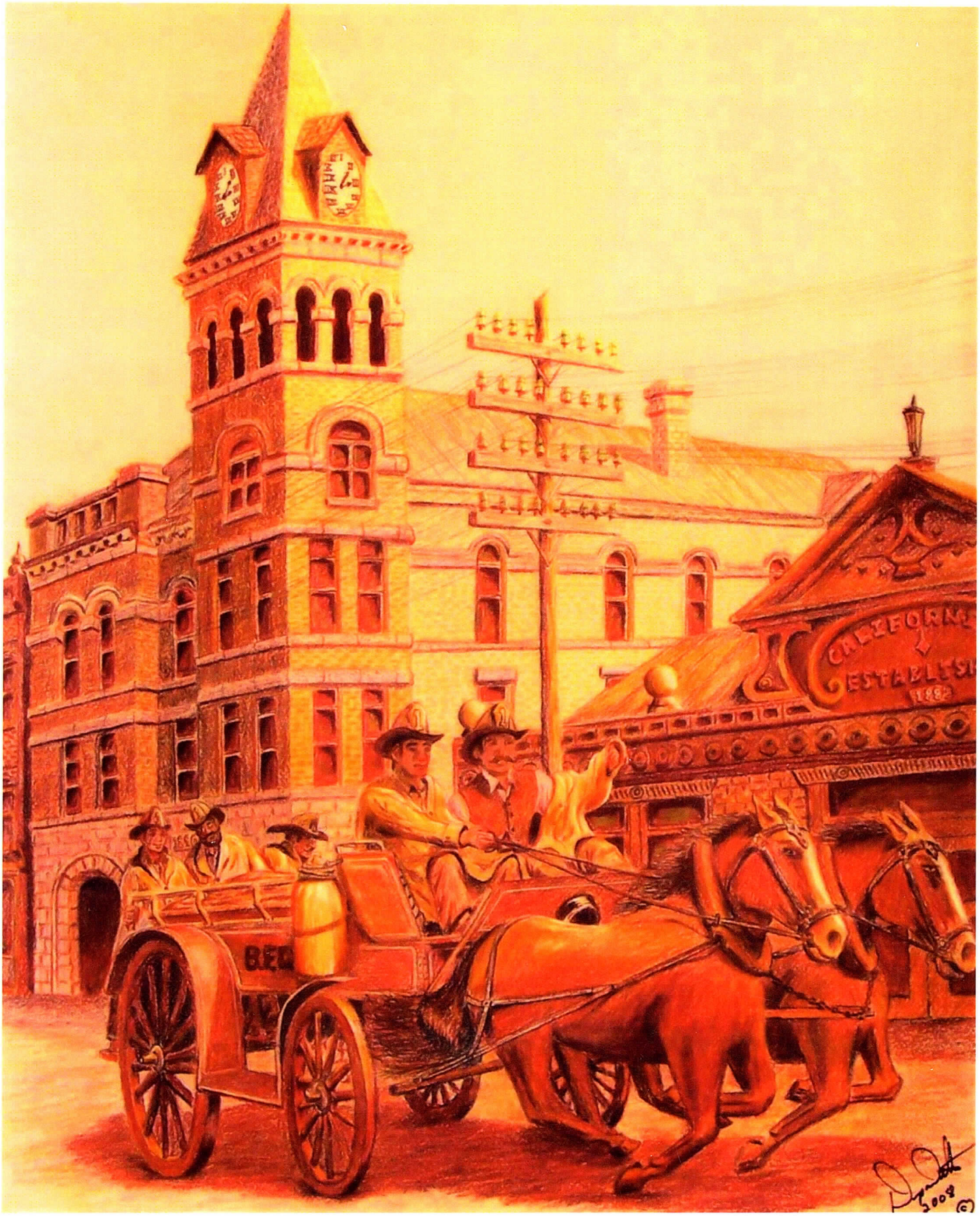
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Notes & Contacts

Back cover: "First Fire" by Denny Dutton, © 2008

The image depicts the fire department leaving City Hall, heading west on Broadway to a fire during the summer of 1900. The scene shows the fire wagon with a young man on his first fire call being given some advice from veteran Fire Chief Peter Sanger at right, as the wagon passes the famous California bar and brewery. This piece was compiled using a drawing in the Anaconda *Standard* newspaper from October 7, 1900, showing hose wagon #1; photos from "A Brief History of Butte" published in 1900; and field study with photos of the same area today. Of note here is the California Brewery which operated from about 1881 well into the 20th century. This building burned twice; the last fire, about 1973, was arson and created the parking lot at Broadway and Main Streets. A special thanks to Ellen Crane at the Butte Archives for assistance in trying to establish exactly when the California opened. Today only the City Hall, 24 East Broadway Street, remains from this scene.


B.F.D.
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