Rethinking Industrial Heritage:

A Discussion of the Preservation of Compromised and Contested Cultural Landscapes in Butte, Montana

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RETHINKING INDUSTRIAL HERITAGE:
A DISCUSSION OF THE PRESERVATION OF COMPROMISED AND CONTESTED CULTURAL LANDSCAPES IN BUTTE, MONTANA

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I owe my deepest gratitude to my family for their unwavering support in all capacities. I truly cannot thank you enough.

And lastly, this work was inspired by the legacy of the hardrock miners of Butte, Montana and it is their memory that we must consider above all else when considering the preservation of industrial heritage.

“Tap’er light”

Alison LaFever
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACM</td>
<td>Anaconda Copper Mining Company</td>
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<tr>
<td>ARCO</td>
<td>Atlantic Richfield Oil Company</td>
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<tr>
<td>BA&amp;P</td>
<td>Butte Anaconda &amp; Pacific Railroad</td>
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<tr>
<td>Butte CPR</td>
<td>Butte Citizens for Preservation and Revitalization</td>
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<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response Compensation and Liability Act</td>
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<td>EPA</td>
<td>Environmental Protection Agency</td>
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<td>HAER</td>
<td>Historic American Engineering Record</td>
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<td>MRI</td>
<td>Montana Resources, Incorporated</td>
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<td>NHL</td>
<td>National Historic Landmark</td>
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<td>NHPA</td>
<td>National Historic Preservation Act</td>
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<td>NPL</td>
<td>National Priorities List</td>
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<td>NPS</td>
<td>National Park Service</td>
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<td>PRP</td>
<td>Potentially Responsible Parties</td>
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<td>RHPP</td>
<td>Regional Historic Preservation Plan</td>
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<tr>
<td>SHPO</td>
<td>State Historic Preservation Office</td>
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<tr>
<td>SIA</td>
<td>Society for Industrial Archeology</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<tr>
<td>URA</td>
<td>Urban Revitalization Agency</td>
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<td>VAF</td>
<td>Vernacular Architecture Forum</td>
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Introduction

Deindustrialization in the United States from World War II to the present has led to the current period of discussion about how to protect, rehabilitate, and reuse what is now referred to as “industrial heritage.” Nicknamed the “Richest Hill on Earth,” the city of Butte, Montana, is one of the most significant industrial heritage sites in the world. It is touted as being the largest and longest running single copper mining site in the history of the United States, and between 1887 and 1920, the copper mines of Butte, along with the smelting facilities in the neighboring community of Anaconda, were the largest producer of copper in the world. The impact of the copper mining industry is manifested in the extensive architectural and cultural resources and industrial landscapes that remain in Butte today which reflect the city’s complex history and unique industrial character.

Butte has been extensively documented and its historic significance has been widely covered. There is no question that as a copper mining and industrial center, Butte’s industrial heritage is significant and worthy of merit. However, what embodies that heritage and how it should be preserved and celebrated is not always clearly understood and agreed upon. A narrow definition of industrial heritage, which is focused on architectural structures and technological systems and overlooks key components of Butte’s legacy such as cultural landscapes and industrial degradation, has dominated preservation efforts and threatened the authentic preservation of Butte’s heritage within its industrial landscapes. The case of Butte speaks to a larger tension within the field of historic preservation. Despite efforts by groups such as the Society for Industrial Archeology to expand the scholarship and recognition of industrial heritage within the greater

1 National Register of Historic Places, Butte-Anaconda National Landmark Historic District, Walkerville, Butte, and Anaconda, Silver Bow and Deer Lodge, Montana, ref no. 66000438, expanded NPS NRHP Registration Form, 2005, 80.
historical preservation field, a broad understanding and appreciation for what defines industrial heritage is still in many ways limited to a select group of historians and preservationists in the field and has not yet been accepted on a broad scale.

This thesis will expand the definition of industrial heritage and include an evaluation of the conceptual theories that provide a context and foundation for its scholarship. Furthermore, it will evaluate the specific challenges associated with industrial heritage preservation in Butte, and explore the ways in which Butte’s industrial heritage can be fully understood and incorporated into the big picture of Butte’s ongoing preservation efforts through a variety of tools and strategies. In addition, the analysis will continue to press upon the important question of why industrial heritage preservation is important as a significant reflection of culture in order to advocate for the preservation of Butte’s unique industrial heritage.

The discussion will focus on the mine yards and existing mining landscapes of Butte as a platform from which to begin to explore the definition of industrial heritage in Butte. While the primary focus of this work is restricted to these mine sites, it is important to acknowledge that Butte’s industrial legacy is also represented in the development of the city’s neighborhoods and the residential architecture built to house industrial workers, the commercial architecture of Butte’s “Uptown” central business district that was built as an expression of the wealth generated by the copper empire, the railroad resources of the former Butte, Anaconda and Pacific Railroad that was the industrial link between the mines of Butte and the smelting facilities of Anaconda, and the meeting halls and social clubs where labor and political groups met and organized in order to build Butte into the “Gibraltar of Unionism” that it become widely known for.

The industrial legacy of Butte is one that is has been both celebrated and contested since mining first began in the 1870s. In many ways, the mining industry has both created and physically destroyed the cultural landscape of Butte, contributing to a complex identity that continues to define the place today. This dichotomy creates specific challenges with regard to the preservation
of cultural resources related to industrial heritage in Butte. A realistic study of Butte’s industrial heritage must acknowledge that its complex history is not always remembered fondly. The emergence of Butte as an industrial capital is a story as much of progress, prosperity and innovation as it is of pollution, destruction, and the brutal exploitation of the western landscape. While the sight of smoke billowing from the copper smelters, the smell of sulfur that permeated the air and sounds of the gallows frames’ sheave wheels and the shift-changing mine whistles every eight hours to some represented the unpleasantness of industrial contamination and negative effects of pollution on the Montana landscape, to others these were seen as a positive sign of continued prosperity, a strong economy, and a steady paycheck for those whose livelihoods depended on the copper industry. And although to some the industrial landscape is thought of as ugly and blighted, to others it is a symbol of Butte’s outstanding industrial legacy and a reminder of the prominence Butte once had.

Given its contested heritage, understanding Butte’s industrial heritage as a cultural landscape is particularly challenging. This is further compounded by the challenges posed by the environmental effects of mining. Over 100 years of large-scale copper mining and processing in the area led to extensive groundwater, surface water and soil contamination. In addition to being one of the most significant mining and industrial sites in the country, Butte and the surrounding area are now part of one of the largest EPA Superfund Sites in the United States. Superfund remediation, which can remove historically significant relics of industry for the sake of environmental cleanup, creates a tension between what is there now and what was there yesterday. Nowhere is the tension greater than in Butte and Anaconda.

The challenges posed by the tension between the environmental realities and the industrial legacy of Butte is best stated by Butte native, writer and filmmaker Edwin Dobb:

“...[I]n the attempt the repair the ravaged land, the poisoned water—a noble and necessary task, certainly—we run the risk of burying or erasing and, therefore,
systematically forgetting what we most need to remember. Reclamation [is] a kind of amnesia.”\(^2\)

Prior preservation plans have identified properties with the highest historic value within the Superfund area and outlined a process for site remediation that seeks to preserve the historic character of those sites. The goals of these efforts are centered around rehabilitating the mine yards from dirty, dangerous and un-used spaces into vibrant community cultural and recreational spaces in order spur economic growth, encourage tourism, and to reconnect the abandoned mine yards to the surrounding community as they historically were. While so far the ongoing preservation efforts in Butte and Anaconda have been well thought out, and well executed, there is a concern that preservation efforts will romanticize the industrial legacy and lose sight of the historic realities of the industrial past that are not always pleasant. Perhaps too much focus has been placed on tourism and recreation and not enough focus has been placed on the preservation of authentic industrial heritage.

Given its rich industrial legacy, Butte is one of the places America came from. The city is an ideal vantage point from which to study and begin to understand the implications of material culture and view relationship between an extractive industry that has been both immensely beneficial and immensely destructive. Contested heritage, Superfund remediation and historic preservation trends complicate the preservation of the authentic industrial heritage in Butte. The mining industry that was once physically expressed through the sights and sounds of active mining operations is still seen in some places is seen in the mining landscape. These mine yards and landscapes represent Butte’s collective memory as a mining empire and they embody Butte’s industrial heritage. In the post-industrial era, a well-defined effort should be made to ensure that that industrial heritage is retained and celebrated.

Chapter 1

The “Richest Hill on Earth”: The Historic and Cultural Context of Butte

Butte is unlike any other city in Montana. In the nineteenth and twentieth centuries, Butte experienced every stage of development of an industrial mining site: from camp, to boomtown, to mature city, to setting of post-industrial decline, to center for historic preservation and environmental cleanup. And while most mining communities were prosperous for only brief period of time, large scale extraction of valuable minerals in Butte continued from the 1860s through the early 1980s. Its longevity and magnitude as world class mining center greatly impacted the built and natural environments, resulting in an industrial and urban sense of place that reflects Butte’s rich history and culture. The remaining historic resources collectively compromise a remarkable landscape that possesses exceptional value in illustrating the dramatic changes that resulted from America’s emergence as the world’s leading industrial nation and make Butte significant and relevant as an industrial heritage site.

Butte is located in southwestern Montana on the western slope of the continental divide of the Rocky Mountains at an altitude of 5,538 feet, a little over a mile high. Tightly enclosed by mountain walls in a remote valley, the city was settled around dozens of mining operations that were carved into the famed Butte Hill, the fifteen square mile slope that extends down onto the broad mountain valley below and covers one of the greatest mineral formations on earth. The city takes its name from the pointed rise named “Big Butte” on the western side of “The Hill”, the term locals have used to refer to the location of the mining district as well as what remains of Butte’s original neighborhoods and central "Uptown" business district. 3 “The Hill is unique in that it is both

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a mining district and a town, a culture as well as a highly disturbed geological formation, and the two are inseparable.”4

The underground mines that once existed on the hill, some as many as a mile deep, were hot, dusty, dark and extremely dangerous. They were interconnected by over 3,000 miles of mine workings that are reputed to still remain under the hill.5 A few of the existing mines lie within the city proper, while several others are concentrated on the northeast periphery of the city in the mining district on the hillside that was exclusively occupied by the mining industry. Because the city's urban landscape includes mining operations set within and adjacent to residential areas, the environmental consequences of the extraction economy are all the more apparent.

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5 Butte-Anaconda National Landmark Historic District, 2005, 49.
As it was once the largest and most notorious copper mining city in the American West, and it illustrates the broad patterns of the nation’s extractive mining industry and labor history, numerous books, article, documentaries, and oral histories have been compiled that recount its history as a copper producer and study the rise of the mining district to supremacy among other western metal mining centers. Adding to the body of historic and cultural scholarship that has been done thus far, in recent years scholars have begun to discuss the area’s widespread environmental degradation and analyze the effects of the long term industrial activity there. As explained in the introduction to *Drumhllummon Views*:

“[Butte] is perhaps [one of] the most scrutinized and documented of Montana’s cities. It possesses striking material and cultural incongruities that intrigue and beguile visitor and resident alike: pristine natural beauty, toxic waste Superfund sites, unrivaled riches and subsistence and poverty, ornate edifices, back alley...
hovels, a planned townscape and hiddledy-piggledy urban blocks punctuated by gullies and gallus frames."\(^6\)

This chapter is not meant to be an exhaustive history of Butte, but is intended to give a general overview of Butte’s historical, cultural, and architectural context in order to better frame the discussion of what defines Butte’s industrial legacy and what should be used in the strategies for its preservation.

Figure 1.3: Map showing the locations of historic mines in relation to the city. (Courtesy the Montana Bureau of Mines and Geology; see appendix for full-size version)

Settling of the Mining District and the Rise of the Copper Kings

Unlike competing districts like Keweenaw, Michigan or Bisbee, Arizona, Butte benefited from a unique geology that concentrated unparalleled mineral wealth in one geographically precise location. “In no other single mining district in the United States was such a small area worked so intensely for so long.” The mineral riches located under the north slope of the valley lured thousands of people and millions of dollars investment to the area and spurred the evolution of one of the world’s greatest mining centers and most colorful cities in the American west. The north slope of the valley held a variety of minerals that contributed to Butte’s rise to prominence including (in order to quantity extracted between 1880 and 1972): copper, zinc, manganese, lead, silver, cadmium, bismuth, selenium, tellurium, and gold. The copper deposits in particular were particularly rich, extending over one mile down into the hill. “Next to iron, the principal constituent of steel, no metal was more important to the economic growth of the country [than copper], and the enriched veins beneath Butte were thick with it.”

Butte began as a western boomtown, not unlike many other mining camps of the American west. While its reputation as a world mining center was made in base metals, it first mineral booms involved the discoveries of precious metals. Prospectors first discovered placer gold deposits interlaced with copper along Silver Bow Creek in 1864. By 1870, most of the gold placers were worked out and Butte was practically abandoned.

Throughout the 1870s, the development of a strong silver mining industry by local miners and investors ushered in a new era of mineral development in Butte. The success of Butte’s silver mines created a significant resurgence in mining that attracted outside investment interests, which

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7 Butte-Anaconda National Landmark Historic District, 2005, 81.
introduced substantial outside capital to the area. This led to the development of a burgeoning metallurgical infrastructure that included the construction of many stamp mills and smelters to process the mined silver ore and promote the rapid development of Butte’s silver industry.\textsuperscript{13} By 1876, Butte was once again a mining boomtown. Silver mining remained a vital part of Butte’s mining industry until the Panic of 1893 caused even Butte’s most successful silver mines to fold, but the ever expanding copper industry was relatively un-phased.\textsuperscript{14}

While Butte remained primarily a small precious metal mining camp through the 1870s, copper mining and milling industries also began to develop on a small scale at this time. A major infusion of capital was needed in order to recover the vast quantities of silver and copper beneath the hills.\textsuperscript{15} A handful of shrewd and ambitious businessmen, who are collectively remembered and sometimes reviled as the Copper Kings, facilitated the investment of capital needed to expand Butte’s mining industry and in turn benefited from the staggering fortunes that resulted. The battles to control the rich resources on the Butte hill are referred to as the War of the copper Kings. Three ruthless American businessmen, William A. Clark (1839-1925), Marcus Daly (1841-1900), and F. Augustus Heinze (1869-1914), “deployed money, mining engineers, lawyers, judges, politicians, journalists, and editors in one of the most viscous struggles for corporate dominance waged during Gilded Age.”\textsuperscript{16}

William A. Clark, a Deer Lodge banker and freighter, arrived in Butte in the 1870s and began purchasing mines on the Butte Hill including the Original, Colusa, Mountain Chief and Gambetta.\textsuperscript{17} He also played a key role in the rebirth of Butte by financing the development of silver stamp mills. He developed his claims, shipping the copper ore by wagon to Utah then by train to Colorado.

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\textsuperscript{13} Shovers et al, 1991, 4.
\textsuperscript{14} Butte continued to produce silver after, but mainly as a by-product of copper smelting.
\textsuperscript{15} Shovers et al, 1991, 5.
\textsuperscript{17} Shovers et al, 1991, 5.
The most notorious and influential of the copper kings was Marcus Daly, a miner and mine manager from Ireland by way of Salt Lake City who is considered to be, according to historian Michael Malone, one of the greatest practical mine developers who ever lived.18 Daly arrived in Butte in 1876, and with his business partners, the four Walker brothers of Salt Lake City, purchased the Alice silver mine in 1876.19 Under the expert management of Marcus Daly and sound investment of the Walkers, the Alice proved to be an exceptionally productive silver mine. This was the first major influx of outside capital and expertise in to the area, which marked a turning point in the rise of Butte. The Butte Miner described the development as “the beginning of the Butte boom...the first gun to awaken Eastern capitalists to the extent and permanence of our resources.”20

Daly sold his share of the Alice in order to purchase the Anaconda mine in 1880 and upon excavation, discovered a copper vein at the 300-foot level the largest deposit of copper sulphide in the world, which signaled the beginning of copper mining on a grand scale.21 Author Edwin Dobb refers to Daly’s copper discovery as the “high grade tip of a subterranean iceberg extending at least a mile below the surface and containing more than four billion tons of copper ore.”22 By 1883 when the mine reached the 600 foot level, the copper vein ranged in width from 50 to 100 feet and in places was 50% pure. The Alice and the Anaconda Mines became two of the most productive mines on the Butte Hill, and with the mines’ abundant copper production, Daly was able to secure seemingly limitless investor backing from San Francisco to eventually expand his interests into one of America’s largest full-scale copper mining and smelting empires.23

The copper mines of the early years of Butte copper production yielded some ores containing as much as 40 to 60 percent copper. After the arrival of the Utah Northern Railroad in 1881, the mineral-rich ores were initially shipped by rail and processed at smelters in Baltimore and Wales. Only the highest grade ore could be processed this way, which limited the profitability of the copper that was taken out of the ground. Much of the copper ore found in Butte was bound with sulphur in a mineral called chalcolite, or with other minerals containing iron and arsenic, which was difficult to reduce by smelting. The construction of several state of the art concentrators and smelters capable of processing the complex Butte ores was key for encouraging the rapid expansion of Butte copper mining.

Clark facilitated expansion of the Boston and Colorado smelting firm to Butte and established the Colorado and Montana Smelting Company, the first copper smelting facility in Butte, in 1879. This minimized the need to ship primary ores elsewhere and made the processing of lower grade ores more economically feasible, an important milestone in Butte’s industrialization. The increased demand for copper and the rapid expansion of Butte mines over the next few decades, resulted in the growth of Butte’s smelting industry. Between 1881 and 1910, eight ore processing plants were in operation in Butte, including the Boston and Montana, the Parrot, and the Butte Reduction Works. The smelting and metallurgical activities contributed to much of the early smoke pollution and contamination that remains imprinted upon the cultural landscape today, and devastated Butte’s environment more than any other facet of the mining enterprises of Butte in the late nineteenth and early twentieth centuries.

29 Quivik, Drumlummon Views, 2009, 37.
The time period in which Butte's copper mining industry was founded contributed to its explosive growth. The late nineteenth and early twentieth centuries can be called the electric age. During this time, telegraph and telephone wires were expanding across the nation and electrical wires were being incorporated into modern life in order to power the American industrial revolution, facilitate rapid industrialization, and revolutionized domestic life. At the beginning of the electrical age, copper was a commercial metal largely valued for its physical properties, including malleability, ductility, and electrical conductivity. It was by far the best and most economic conductor of electricity. Copper wires and cables became increasingly important to

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industry and to daily life of people all over the industrial world as they adopted electric lighting and machinery. Butte copper enabled the widespread electrification of the United States and enabled the country’s modernization. “By providing vast reserves of the red metal just when it was needed most, Butte and Anaconda helped transform the United States into a modern industrial superpower.”

The Consolidation of the Anaconda Copper Mining Company

As copper mining and processing developed into a majorly lucrative business, the War of the Copper Kings waged on. The largest mining companies expanded into smelting, logging, and railroad endeavors in order to consolidate the industrial processes, maximize profits, and drive smaller competitors out of business. No one was more successful at this endeavor than Marcus Daly, and his Anaconda Company, named for his most successful mine.

Daly envisioned a huge scale of copper production beyond Butte’s initial production in the early 1880’s, and became hugely influential in Butte’s transformation from a bustling mining town into the industrial copper empire it would become. Daly and his investors continued to expand their holdings within the Anaconda Company, an unincorporated syndicate, acquiring several other lucrative mines on the hill including the St. Lawrence and the Neversweat. He realized that a large-scale smelting facility was a critical development for processing lower-grade ores in order to export the purest copper possible and make the copper mines of Butte the most profitable. The expansion of Daly’s operations from mining to smelting signaled the beginning of the Anaconda Company’s consolidation of operations and capitalization of assets which facilitated its rise to become a major corporate power.


32 Butte-Anaconda National Landmark Historic District, 2005, 123.

33 Kohl, 2006, 65.

34 Butte-Anaconda National Landmark Historic District, 2005, 55
In 1883, Daly acquired 3,000 acres 26 miles west of Butte in the Deer Lodge Valley upon which to build a state-of-the-art smelting facility to process the copious amounts of copper his Butte mines produced. He also laid plans for an adjacent townsite to create a community to house the smelter workers and their families. The first of the Anaconda Company’s world-class copper smelting facilities opened in October of 1884, which nearly doubled copper production in Butte and Anaconda for the next six years. The evolution of smelting technologies and capital investments in their construction helped Butte to eventually surpass the Keweenaw Peninsula in northern Michigan in copper production. By 1887, Butte was the world’s largest producer of copper, a distinction it would hold through the end of World War I.

In 1891, the Anaconda Company entered a period of highly significant reorganization. The syndicate formally incorporated at the Anaconda Mining Company in January of that year in order to allow outside investments. It was then reincorporated as the Anaconda Copper Mining Company (ACM) in 1895, a title it would retain until 1955 when it renamed itself simply the Anaconda Company.

Following a nationwide trend toward corporate consolidation and the creation of giant trusts, in 1899, Daly teamed up with two directors of Standard Oil to create one of the largest trusts of the early 20th century, the Amalgamated Copper Mining Company. This facilitated a consolidation of the Company’s collection of ancillary companies located throughout the state in order to integrate all aspects of industry from the manufacturing of mine timbers to electricity generation under one giant industrial entity. This corporate integration also allowed for the consolidation of mining operations on the Butte Hill by combining shafts and systems for ventilation. Within a decade, Amalgamated had consolidated all of Butte’s many prosperous mining

35 Butte-Anaconda National Landmark Historic District, 2005, 89.
and smelting companies into “a single, giant industrial operation that featured an integrated
network of mines in Butte, the world’s largest nonferrous smelter at Anaconda, and a wholly owned
railroad, the Butte, Anaconda and Pacific (BA&P), linking the two” and held a virtual monopoly over
the mining industry in Montana.\textsuperscript{41} In 1915 the Amalgamated Copper Company was dissolved and
the Anaconda Copper Mining Company emerged as an independent corporation free of the control
of the trust. By the end of the Amalgamated era of corporate consolidation, the ACM emerged as an
industrial giant, the world’s largest producer of non-ferrous metals, and the fourth largest
corporation in America.\textsuperscript{42}

The Company,” as it was known, took control of Butte, relentlessly pursuing increased
productivity and the elimination of labor unions. The political power of ACM was widely known,
and its corporate offices on the six floor of the Hennessy Building in Uptown Butte were poignantly
referred to as the real City Hall. The Company also maintained a comprehensive hold on Montana’s
natural resources, government, and people more so than any other corporation in any other state
across the nation.\textsuperscript{43}

Furthermore, most of the enormous wealth extracted from the Butte Hill—approximately
$25 Billion worth—left the state, benefiting only a relatively small number of investors rather than
the community.\textsuperscript{44} During the mining industries peak years, living conditions in Butte were not
always healthy and safe, and basic public amenities like grass and parks were considered luxuries.
The children of Butte grew up playing around industrial sites, near the train tracks, and around the
mine yards. The Columbia Gardens were one of the few recreational green spaces in Butte. Built by
William A. Clark in 1899, the Columbia Gardens was a seventy-acre family amusement park and
gathering place that included a large dance pavilion, Ferris wheel, merry-go-round, and elaborate

\textsuperscript{41} Quivik, \textit{Drumlummon Views}, 2009, 34.
\textsuperscript{42} \textit{Butte, America: The Saga of a Hard Rock Mining Town}. A film produced and directed by Pamela Roberts.
\textsuperscript{44} Dobb, “Pennies From Hell,” 1996, 43.
wooden roller coaster as well as broad lawns, flower displays, and shade trees that provided a natural refuge from the industrial landscape of Butte.45

Despite a general resentment toward the Company’s corporate greed and its often corrupt practices, the communities of Butte and Anaconda maintained a complex love-hate relationship with the company. 46 The Company was still seen as a provider, and as such it was valued for the work it provided and the mouths it fed. Moreover, the company came to penetrate community life in powerful ways, sponsoring such community amenities as sports leagues and floats in parades.47 The positive balanced out the negative, and the Company’s influence in the community came to be widely accepted as the customary way of life in Butte.

“Butte, America”

The years of the War of the Copper Kings and ACM consolidation were a time of skyrocketing production and expansion of the built environment of Butte, including the construction of the thriving central business district of “Uptown” Butte.48 The strong mining economy created thousands of jobs and that, paired with unparalleled union strength and some of the highest industrial wages in the United States, workers were drawn to Butte by the thousands.49 Immigrants poured into Butte from all over the world, particularly Europe.50 The city became a cultural melting pot, as Irish, Italians, Finns, Swedes, Norwegians, Cornishmen, Yugoslavs, Serbs, and Chinese along with many others, poured in to work the copper mines. Reflecting this diverse

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46 Butte, America, 2009.
47 Ibid.
48 Murphy, 1997, 4.
50 Murphy, 1997, 10. By 1910, immigrants and children of foreign or mixed parentage made up 70.2% of the population.
workforce, no smoking signs in the Butte mines were posted in 16 different languages. Evidence of Butte's notable cultural diversity remains intact even today.

Ethnic neighborhoods as diverse as New York or Chicago sprouted up throughout Butte. Working class neighborhoods such as Finntown, Dublin Gulch, Corktown, Centerville and the independent town of Walkerville were located north and east of the central business district near some of Butte's most famous and lucrative mines. These neighborhoods were characterized by rambling narrow streets, walk up flats, rambling boarding houses and small wood frame miners cottages huddled up near mine yards and industrial structures. Further east were the suburbs of Meaderville and McQueen, which became famous for their restaurants, speakeasies, and nightclubs in the 1920s and 1930s. Conversely, Butte's upper and middle classes settled on the west side in attractive Victorian houses and craftsman bungalows. Historian Mary Murphy sums up the social and cultural climate of Butte in the early twentieth century:

“By the eve of World War I the contours of modern Butte were in place. Neighborhoods coalesced along lines of class and ethnicity, business and entertainment districts flourished, and ideology and custom demarcated arenas of behavior for workers and bosses, and men and women. Butte was a workers' city. Miners and the carpenters, blacksmiths, engineers, machinists, cooks, waitresses, laundresses, and boardinghouse keepers who supported their work dominated the city's work force, its streets, and its social life.”

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51 Butte, America, 2009.
52 Murphy, 1997, 12-14.
53 Murphy, 1997, 22.
By 1920, Butte’s population had soared to nearly 100,000.54 Butte and its surrounding communities constituted the largest metropolitan area between Minneapolis and Spokane. In just four decades, Butte had become a cultured, sophisticated, and very cosmopolitan city. As stated in the Foreword to *Drumlummon Views*: “Butte was tied to the world and its politics. It was a city of strong individuals, of thinking individuals. In a state of wheat and cows, Butte was the exception—

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54 Murphy, 1997, 9. This number has been debated by historians. Butte’s highest population likely occurred in 1917-1918, but it is only documented by the 1910 and 1920 censuses. Furthermore, according to historian Mary Murphy, the figure of 100,000 is based on an estimate made by the R.L. Polk Company after canvassing for its 1916 directory. She explains further that “it was always difficult to know exactly how many people [lived in] Butte because miners were notoriously transient and political boundaries and 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.”
a center of excitement and ferment.”\textsuperscript{55} Butte and its residents did not want to be thought of as a cow town, and made every effort to set itself apart from the rest of Montana, referring to itself as “Butte, America.”\textsuperscript{56}

The city’s cultural urbanity was reflected most in its cultural institutions and architecture. In 1917, fourteen different theaters drew people uptown for movies and vaudeville acts featuring the likes of stars such as Charlie Chaplin.\textsuperscript{57} The masonry architecture of the uptown central business district rivals that of many east coast industrial cities. Elaborate public and commercial buildings, including most notably the 1906 Metals Bank Building designed by the well-known architect Cass Gilbert, as well as memorable saloons and parlor houses, large mansions, the grand Mother Lode Theater, union halls and social clubs, and outstanding collection of vernacular dwellings represent a rich architectural character lacking in many other parts of the state or other exploited industrial extraction centers.\textsuperscript{58}

In addition to being one of the most sophisticated places in the west, it was also notorious known as one of the most rambunctious places in the country. Shaped early on by a largely single male workforce, “Butte became a boisterous island of urban depravity and unbridled industrial capitalism.”\textsuperscript{59} Part of the lore associated with Butte that exists today revels in its reputation as a wide-open town. This meant that a man could buy a drink, place a bet, or visit a prostitute at any hour of the day or night without worrying about being arrested.\textsuperscript{60} Due to the nature of the round the clock mine shifts, saloons, restaurants, gambling halls and the red light district operated at all


\textsuperscript{56} \textit{Butte, America}, 2009.

\textsuperscript{57} Murphy, 1997, 8, 80.

\textsuperscript{58} Patrick Malone, “Cultural Treasure,” 1997, 64.

\textsuperscript{59} Dobb, “Pennies From Hell,” 1996, 42.

\textsuperscript{60} Murphy, 1997, 44.
hours of the day and night. Hundreds of prostitutes worked in the red light district along Galena Street in wooden cribs interspersed amongst substantial brick parlor houses.61

Figure 1.6: Uptown Butte nightlife c.1939, (Courtesy of Library of Congress, Prints & Photographs Division, FSA-OWI Collection, [LC-USF33- 003128-M5])

Legacy of Labor

The hard rock miners of Butte who worked underground were fundamentally the heart and soul of Butte’s mining industry. Hard rock mining refers to the underground extraction of metallic ores that required drilling and blasting.62 The extraction and processing of metallic ores on a large scale required enormous amounts of capital, complex technology, and thousands of wage laborers.63 Many men worked in each underground mine, each performing a specific task that was

61 Murphy, 1997, 6.
62 Murphy, 1997, 16.
63 Ibid.
necessary in order to extract the valuable ore from the ground.\textsuperscript{64} The conditions were hot, dirty, and damp and the work was grueling, but the pride and camaraderie among those that were hard rock miners was unparalleled.

Working underground was statistically one of the most dangerous jobs in the world.\textsuperscript{65} Butte’s geology made mining the hill particularly treacherous. Deep shafts, high rock temperatures, and faulted fractured ground set the stage for underground fires, falling rock, and suffocation.\textsuperscript{66} The dangerous nature of the work made miners incredibly superstitious and created the implementation of many rituals and traditions, many of which still exist today. For example, miners never said goodbye, instead they would bid farewell with “take it easy” or “tap ‘er light,” a reference to the practice of loading explosives into ore that requires skill and finesse in order to prevent a premature explosion.\textsuperscript{67}

The dangerous working conditions led to considerable labor disputes between miners and the mining companies between 1878 and 1934 and a pronounced labor solidarity that caused Butte, and by association Anaconda, to be widely recognized as the “Gibraltar of Unionism” between the mid-1880s and World War I.\textsuperscript{68} The term was coined, nearly all wage workers in Butte and Anaconda, including not only miners and smelter workers, but also barbers, cigar makers, waitresses, and newsboys, were union members.\textsuperscript{69} The ongoing labor battles led to the formation of several union groups in Butte, including the Butte Miners Union, the largest miners’ union in the West. It fought to secure better wages and safe working conditions for its 17,000 members, and

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\textsuperscript{65} Butte, America, 2009.
\textsuperscript{66} Murphy, 1997, 16.
\textsuperscript{67} Butte, America, 2009.
\textsuperscript{68} Butte-Anaconda National Landmark Historic District, 2005, 102.
\textsuperscript{69} Michael Malone, \textit{Battle for Butte}, 1981, 76-77.
\end{flushright}
provided sick benefits and burial expenses within a particularly contentious social and political climate.⁷⁰ Among its early victories was the establishment of the eight-hour work day in 1901.⁷¹

Figure 1.7: Butte Hard Rock Miner working underground (Photo courtesy Butte-Silver Bow Public Archives)

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⁷⁰ Ibid.
⁷¹ Kohl, 2006, 68.
A few key labor conflicts are particularly noteworthy, including the bombing of the Miners Union Hall in 1914 after the ACM began to force the union to accept a “rustling card” system that allowed the company to deny jobs to suspected agitators. The bombing ended a previous decade of amicable labor relations and led to the city’s first stint under martial law.\textsuperscript{72}

In the peak copper production years during World War I, the Butte mines operated day and night in order to supply the enormous amounts of copper the war required. Miners were pushed harder than ever and conditions worsened, fuelling labor tensions. The conflict came to a head with the Granite Mountain/Speculator Mining Disaster of June 1917.\textsuperscript{73} A fire broke out on the 2400 level of the Granite Mountain Mine. Due to the well-ventilated nature of the mine, the flames and smoke spread quickly through the shafts to connecting mines, including the Speculator, killing 168 men. This tragedy became the worst hard rock mining disaster in U.S. history and led to a major strike in 1917 that went on for seven months. The workers attracted negative international attention due to the seemingly un-patriotic timing of the mid-war strike. Butte attracted further negative international attention later that summer with the lynching of Industrial Workers of World (IWW) organizer Frank Little, who had been drawn to Butte by the strike.\textsuperscript{74} The traumatic events of 1917 resulted second Butte’s occupation by federal troops, which lasted until 1921.\textsuperscript{75}

After World War One, the Butte endured a post-war economic depression. The population dwindled to roughly 60,000 by 1920 following a mass exodus of nearly a third of its war time peak population. Some citizens sought to fashion a community that also catered less to a wide-open

\textsuperscript{72} Kohl, 2006, 69.
\textsuperscript{73} This disaster is remembered with memorial that overlooks the mine site on the Butte hill. The memorial is also dedicated to the 2,500 other miners who lost their lives in the mine operations of Butte.
\textsuperscript{74} Dobb, “Pennies From Hell,” 1996, 47.
\textsuperscript{75} While Butte’s rich labor history is an important aspect of Butte’s industrial heritage, its full history, significance, and effects on the mining industry in Butte cannot be addressed within the limited scope of this thesis. For thorough discussion of Butte’s labor history see: National Register of Historic Places, Butte-Anaconda National Landmark Historic District, Walkerville, Butte, and Anaconda, Silver Bow and Deer Lodge, Montana, ref no. 66000438, expanded NPS NRHP Registration Form, 2006; Michael P. Malone, The Battle for Butte: Mining and Politics on the Northern Frontier, 1864-1906. (Seattle: University of Washington Press, 1981); and Paul Frisch, “Gibraltar of Unionism: The Development of Butte’s Labor Movement, 1878-1900,” The Speculator: A Journal of Butte and Southwest Montana History 2 (Summer 1985): 17-18.
society and more to one centered on families. While Butte remained rough and tumble, it never regained its prewar population.76 “The war years sobered Butte and over the following two decades its residents would seek to reconcile the city’s raucous past with the needs of a changing population and a seemingly less optimistic future.”77

Figure 1.8: Panorama of Butte c.1925, Section 1, showing the mining district on the hill in context to the Uptown commercial and residential districts, (Courtesy of Butte-Silver Bow Public Archives)

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76 Murphy, 1997, 2.
77 Murphy, 1997, 35.
Figure 1.9: Panorama of Butte c.1925, Section 2, showing the mining district on the hill in context to the Uptown commercial and residential districts, (Courtesy of Butte-Silver Bow Public Archives)

Figure 1.10: Panorama of Butte c.1925, Section 3, showing the mining district on the hill in context to the Uptown commercial and residential districts, (Courtesy of Butte-Silver Bow Public Archives)
Butte in Decline

Following previous investments made in international copper mining in Mexico and Chile, by the end of the first World War, ACM had grown into a multi-national corporation with a portfolio of subsidiaries in mining, mineral processing and fabrication. It continued to expand its holdings outside of Butte and Anaconda throughout the twentieth century, including the acquisition of the American Brass Company, the nation’s largest brass fabricator and a major consumer of copper and zinc.\(^{78}\) In the early 1920s, ACM invested in significant copper mine holdings in Chile, including the largest single copper reserve in the world at Chiquicamata, in order to supplement the ore sources in Butte.\(^{79}\) ACM began to rely heavily on its Chilean mines for sustaining profits, which ultimately


\(^{79}\) Bode Morin, *Reflection, Refraction, and Rejection: Copper Smelting, Heritage, and the Execution of Environmental Policy.* (PhD Dissertation, Department of Industrial Heritage and Archeology, Michigan Technological University, 2009) 244.
accounted for two-thirds of the company’s copper and three-quarters of its income by the 1950s. As the Chilean mine production increased, Butte continued to steadily decline and its formerly dominant copper industry became a smaller division of a much larger, multi-national corporation.\(^80\)

Despite the emerging dominance of ACM’s international holdings, the Butte mines remained active through the mid-1970s. Butte had become a major producer of zinc and manganese in the early twentieth century. Because manganese was used to strengthen steel, Butte experienced a significant production output during World War II. \(^81\) Despite this brief surge, the mining industry in Butte continued to decline as the deepest veins of ore became so low in mineral content that they could no longer be profitably extracted.\(^82\) In the mid-twentieth century, ACM began to close its underground mines one after another and turned to open pit mining in Butte.

In 1955, ACM began the excavation of the Berkeley Pit, a surface mine created to excavate the very low-grade copper ores located on the eastern side of the Butte Hill by means of excavators, dump trucks, and a much smaller workforce. \(^83\) “The transition from underground to open pit mining represented the most dramatic change in mining methods seen in the Butte district in its entire 80 year history.”\(^84\) Although the pit dominated ACM activities through the 1960s, the company continued to mine underground copper in the deep levels of the Mountain Con and Steward Mines by hoisting ore through the Kelley shaft.\(^85\)

The closing of underground mines in favor of the creation of the large open pit mine led to many layoffs and effectively reduced the skilled hard rock miners to truck drivers, hauling low-grade ore out of the pit. Men lost the identity of being a miner and with the loss of considerable mining jobs, community solidarity and economic prosperity continued to decline. The pit consumed more than a dozen of Butte’s most productive underground mines and mine-related

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84 Ibid.
85 Ibid.
structures, including the Anaconda, St. Lawrence, Neversweat, and the Berkeley; demolished the neighborhoods of East Butte, Dublin Gulch, McQueen, Meaderville, and parts of Finntown; destroyed the beloved Columbia Gardens amusement park and had lasting effects on Butte’s industrial landscape and community identity.86

In 1971, ACM’s mines in Chile were nationalized, which led to significant losses for the company. Open pit operations in Butte could not make up for the company’s tremendous losses in South America, and despite efforts to cut costs and overhead, this spelled the beginning of the end for the Anaconda Copper Mining Company. Thousands of ACM employees were laid off in just two years, which had devastating effects on the city whose livelihood had completely depended on the copper industry. Butte went into “economic and emotional free fall.”87

Similar to the post-industrial story that took place elsewhere in places like Buffalo, Detroit, and Pittsburgh, an extreme economic downturn resulted in closed businesses, abandoned buildings, and the loss of half of Butte’s population. A series of fires, many attributed to arson, between 1972 and 1975 led to the loss of more than twenty buildings in Butte’s Uptown historic district, which had a tragic effect on the city’s rich architectural character and community morale.

Most underground mines were closed by 1975, and by 1977, ACM had eliminated one-third of its Montana workforce. That year it sold its holdings in Butte and Anaconda to the Atlantic Richfield Oil Company (ARCO). Despite promises to modernize its mines and smelters in order to revive the vanishing industrial economies of Butte and Anaconda, ARCO closed the Anaconda smelter in 1980. The Berkeley Pit continued to operate, but as the price of copper declined and the pit grew deeper, it was no longer profitable to haul lower grades of ore to the surface. ARCO closed the Berkley Pit in 1982 and shut off the pumps, allowing the underground mines to flood and the pit to begin filling with toxic water. The large scale mining industry that defined the city of Butte and

87 Butte, America, 2009.
helped shape its character for over a hundred years was over, signaling the end of an over 100 year mining era in the mining city.  

Mining continues today in Butte at the East Continental Pit, a strip mine located just east of Berkeley Pit. The East Pit, as it was called, was opened in 1980 and shut down just three years later along with everything else on the Hill. The mine operation was purchased from ARCO by Montana entrepreneur Dennis Washington in 1985 for $18 million. Washington formed Montana Resources, Inc. (MRI) and began mining copper and molybdenum on a significantly reduced scale and without union workers. The resumption of the mining industry at the Continental Pit operations ushered in a new era of mining on the Butte Hill and reinforces the significance of the industrial mining legacy in Butte.

Figure 1.12: View of the Continental Mine to the east of the Granite Mountain Mine headframe

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88 Morin, 2009, 245-249.
90 Morin, 2009, 250.
Industrial Heritage Resources

Today's Butte’s industrial heritage is reflected in the historic mining resources that remain within the city’s industrial landscape. This thesis will focus on the mine yards, mine related structures, and existing mining landscapes of Butte as a platform from which to begin to explore the definition of industrial heritage in Butte as well as the creation of strategies for the preservation of that unique industrial heritage. Butte is unique because its mining resources are located within and adjacent to its densely settled core where industrial, commercial, and residential developments are all mixed together resulting in an existing built environment that is incredibly rich.91 Moreover, the sheer size and lot of industrial heritage resources that remain intact is remarkable, which further distinguishes itself from contemporary industrial heritage sites.

Over the course of its history, the Butte Hill boasted over 450 mines that bore names of faraway places, famous battles, and the people and dreams of the mines’ initial speculators.92 Some of these mines were small while others were large mine yard complexes. Today there are fourteen mine yards that remain intact scattered across the hill, each retaining at least one significant structure or piece of equipment that “represents the hard rock mining technologies employed in the underground mines of Butte.”93 The mine yards of Butte include the underground mines on the Butte Hill that retain extant mine-related structures and equipment. A typical mine yard at one time would have contained a headframe, at least one hoist house equipped with a steam engine hoist, ore bins, a machine shop, a change house, a blacksmith house, an ice house, framing shop, pump house, rope house, and an assay office.94 The most intact mine yards are the Anselmo and the Steward Mines. (Figures 1.13 and 1.14)

93 Butte-Anaconda National Landmark Historic District, 2005, 47.
94 Ibid.
Figure 1.13: General view of the Anselmo Mineyard looking northeast (Courtesy of Historic American Engineering Record, Library of Congress, 1979-1980)

Figure 1.14: View of the Anselmo Mineyard today (Photo by author, March 2012)
Rising above the rooftops dotted along the hill, the “gallows” or gallus steel headframes are the most visually striking feature on the hill. They dominate Butte’s skyline pronouncing with unmistakable clarity the city’s rich industrial legacy. The headframes provided leverage in order to lower men and materials down into the mine and lift heavy ore out. The headframes are built with two legs set almost vertically near the mine shaft and the two opposite legs are set at an angle in order to brace the structure against the pull of the hoist.95 A cable was slung from the hoist in the hoist house over the sheave wheels at the top of the headframe and connected to bins that moved up and down the shaft. Headframes were initially built of wood, particularly in smaller western mining districts. Only in larger, more capitalized districts like Butte were these structures often later replaced with steel structures.96 The steel headframes were more resistant to deterioration and could be disassembled easily and reused at another mine site, as was commonly done in Butte.

96 Ibid.
The steel headframe in Butte was adapted from technology that was developed in the copper mining districts of the Keweenaw Peninsula in Michigan. Unlike the Michigan frames, Butte frames are unsheathed.

Figure 1.16: Headframes, from left to right: Bell-Diamond, Mount-Con, Travonia mines (Photos by author, January and March 2012)

Towering above the mine sites and surrounding neighborhoods, the fourteen extant headframes in Butte are the most visible and identifiable feature associated with the underground mines. They are the most prominent representation of Butte’s industrial heritage within the built environment and have become a symbol of not only Butte’s extraordinary mining legacy, but also the city itself. Furthermore, the mine yards themselves collectively retain tremendous presence in the landscape and represent a key component of Butte’s industrial heritage. Each mine yard is unique, retaining varying amounts of extant structures and authentic landscapes. A few mine yards

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97 Butte-Anaconda National Landmark Historic District, 2005, 47.
have been or are in the process of being adaptively reused for different purposes while others have been left relatively untouched.

Another key component that will be analyzed in relation to the definition of Butte’s industrial heritage is the remnant of the industrial mining landscape that remains intact on the Butte Hill. To the north east of the uptown central business district, the heavily mined landscape of the formerly productive Butte district unfolds to the east. Relatively isolated from urban residential and commercial buildings, this area is evocative of industrial heritage in a way that is unlike the individual mine yards themselves. The landscapes are bound by waste rock from contemporary mine operations to the east, which threatens the authenticity of these sites. The cultural and historic significance of these landscapes and their relevance to the expression of Butte’s industrial heritage will be discussed in greater detail in the following chapters.

Although this thesis will focus on Butte’s industrial heritage, and strategies that can be implemented in Butte, one cannot talk about the significance of Butte without also acknowledging the significance of Anaconda; Butte’s sister city located 26 miles to the west across the Deer Lodge Valley. After it was established by Daly in 1883, Anaconda quickly grew into a leading industrial center of Montana and with the largest and most advanced copper smelting operations in the world. Butte’s copper production and rise to the largest and richest copper empire in the world in the late 19th and early 20th centuries would not have been possible without the smelters of Anaconda, and the significance of the facilities in Anaconda cannot be understated. Unfortunately, the entire smelter facility, the Washoe Reduction Works, was demolished in the 1980's after ARCO closed the facilities. The only thing that exists as a representation of Anaconda’s industrial heritage is the Anaconda Copper Mining Company Smelter Smokestack. It remains the “community’s most

visible and iconic industrial symbol."\textsuperscript{99} While the smelting facilities in Butte and Anaconda play a significant role in shaping Butte's industrial heritage, they are beyond the scope of this thesis.

Copper catapulted an otherwise isolated landscape in the northern Rocky Mountains to become one of the world’s greatest mining industries. "It is difficult to find another site that has had a more significant impact on the nation’s industrial revolution in the late nineteenth and early twentieth centuries than the copper industry of Butte and Anaconda."\textsuperscript{100} And although it maintains a reputation for being one of the roughest and ugliest places in the country, the people of Butte remain extremely proud of their history, culture and industrial heritage.\textsuperscript{101} The community's strong sense of community and civic pride is well-known across the state and routinely manifests itself in grand proclamations about being the biggest and best: The Richest Hill on Earth, the Largest National Historic Landmark District, and even the largest Superfund site. While not every claim to fame is one that is positively embraced, it defines the place all the same, and contributes to its historic and cultural significance. As Butte struggles to recover from its period of economic decline that began in the late 1970s, its industrial legacy and historic preservation will become a key component of its cultural and economic revitalization. What contributes to the authentic landscape of Butte, and what defines Butte’s industrial heritage, will be discussed further in following chapters, as well as the significant challenges that are associated with looking at the preservation of industrial heritage through this lens.

\textsuperscript{99} \textit{Butte-Anaconda National Landmark Historic District}, 2005, 5.
\textsuperscript{100} \textit{Butte-Anaconda National Landmark Historic District}, 2005, 123.
\textsuperscript{101} \textit{Butte: The Original}. A film by Dick Maney and B.J.McKenzie. (Butte, Montana: Maney Telefilm and Atlantic Richfield Co., 2010) DVD.
Chapter 2

Preservation and Remediation: The Context of Butte’s Preservation Planning and Superfund Designation

In order to be most effective, this thesis must be considered within the larger context of the preservation and environmental cleanup efforts that have been undertaken in Butte and Anaconda over the past few decades. The impact of the copper mining industry on Butte is evidenced in the city’s unique industrial character and vast architectural and industrial resources, as well as in the contamination of the surrounding environment. Copper was one of the most important and heavily mined metals, and its extraction and processing have led to some of the worst environmental degradation in the nation. Portions of Butte, Anaconda, and other adjacent mining-related landscapes now comprise one of the largest National Historic Landmark Districts in the United States, and notably, are part of the largest Superfund cleanup sites in the country. These two competing efforts generate compelling conflicts between heritage planning and environmental remediation and create a very complex setting for historic preservation and the analysis and execution of industrial heritage strategies.

In spite of the tremendous challenges to preservation, Butte has made considerable strides toward the preservation of its heritage. Butte as a historical subject has been extensively studied and documented. Numerous books, articles, theses, and dissertations have been written recounting the area’s social, cultural, and architectural histories and legacies. As an industrial heritage subject, it has also been analyzed by industrial archeologists in publications like IA: The Journal of the Society of Industrial Archeology. And in recent years, scholars in the fields of architectural history, historic preservation, and vernacular architecture have recognized Butte’s wealth of architectural and industrial heritage as a site worthy of national recognition. For example, Butte was the site of Vernacular Architecture Forum’s annual conference in June 2009.
Over the past 30 years, ongoing preservation planning efforts have transformed Butte’s historic legacy into a fundamental base from which historic preservation and heritage tourism initiatives can be executed. For the most part, much of the heritage preservation work in Butte and Anaconda has been a community based effort. While the Superfund cleanup process requires federal and state involvement, the work to advocate for the preservation of Butte’s rich legacy has long been a local undertaking implemented from the bottom up. This chapter will focus on the effect of Superfund designation on Butte’s preservation planning efforts from the early-1980s to the present day in order to acknowledge the successes and oversights of ongoing preservation and environmental remediation work and begin to understand how industrial heritage preservation in Butte can and should evolve.

**Early Preservation Efforts**

After the decline of the mining industry, the heritage movement in Butte had a fairly typical start. Architectural surveys, the designation of a National Register of Historic Places National Historic Landmark (NHL) district, and the establishment of archival repositories and a mining museum, were undertaken by a relatively small group of citizens who collectively attempted to create a preservation constituency in the face of extreme economic and environmental challenges. Between the 1960s and 1980s, these preservation efforts were spearheaded mostly by outsiders who valued the built and cultural landscape differently than long-term residents because it didn’t hold the same personal meanings for them. Many of these early preservationists, planners, and historians arrived in Butte after the demise of the Anaconda Copper Mining Company and the loss of neighborhoods with the construction of the Berkeley Pit, and were able to approach the preservation of Butte’s historic resources from a more objective perspective. Initially, preservation efforts were presented as a tool for economic stimulation in order to slowly build some sort of preservation constituency within the incredulous community. However, still bitter from the loss of
its central industry and the effect it had on the community, the community's long term residents had a hard time fully embracing heritage as either an expression of identity or potential market for tourists. Support for heritage preservation grew slowly as more historic resources were threatened.

Butte’s international legacy as a copper-producing empire was first officially recognized with listing in the National Register of Historic Places as an NHL in 1961. The National Register of Historic Places is the most comprehensive record of historically and architecturally significant sites in the United States. Listing requires documentation of the site’s architectural, cultural, and historical significance. Sites that meet an even higher level of national significance can be elevated to NHL status.103

The 1961 NHL designation acknowledged Butte’s significance under the theme of Westward Expansion (Mining Frontier of the Trans-Mississippi West) and encompassed only 2,720 acres of Butte’s “Uptown” area and roughly 31 sites and structures.104 Key industrial heritage resources such as the Butte mine yards, the smelting facilities of Anaconda, among others, were left out of this initial designation. While this initial effort was not comprehensive, it did recommend that further study be conducted to further define the scope of the designation. In 1985, the designation was expanded to include a survey and formal designation of Butte’s mining sites. Ultimately, in 2005, the NHL designation was fully overhauled, extending the boundaries of the district to include significant resources in Anaconda and the neighboring community of Walkerville to the north and also expanded the district thematically in order to include nationally significant resources associated with the Butte, Anaconda & Pacific Railroad and the history of American Labor.105

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105 Ibid.
In 1963 the Butte Exchange Club founded the World Museum of Mining in 1963 in order to “preserve the enduring history of Butte and the legacy of its rich mining and cultural heritage.” The Anaconda Copper Mining Company donated the Orphan Girl Mine on Butte’s far west side to the museum in 1964 to serve as their permanent home and today is one of the few museums in the world located on an actual mine yard. Since then, the museum has created open-air exhibits and a mining memorial as well as underground tours of former mine operations. The museum has also amassed an exceptional collection of photographs and mining artifacts, many from former ACM workers. Their collections are supplemented with those of the Butte-Silver Bow Public Archives.

Established in 1981 on a shoestring budget, the Butte-Silver Bow Public Archives has grown to encompass considerable regional corporate labor records.\textsuperscript{107} The exhibits and educational programs at the museum and the collections of the public archives are key to the stewardship of industrial heritage.

In the late 1970s, the Historic American Engineering Record (HAER), a branch of the National Park Service, was invited to Butte to document inactive industrial mining operations in 1979-1980. In addition to the preparation of a multi-format survey comprised of large-format photographs, measured drawings of mining related sites, structures, and equipment, and extensive written histories, the HAER project also made the recommendation for the creation of a public agency to manage the redevelopment of blighted areas within Butte’s NHL historic district.\textsuperscript{108}

\begin{figure}[h]
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\caption{HAER photograph of the Diamond Mine c.1979-1980 (Courtesy Library of Congress and Historic American Engineering Record)}
\end{figure}

\textsuperscript{107} Morin, 2009, 269.
\textsuperscript{108} Regional Historic Preservation Plan for the Anaconda-Butte Heritage Corridor, 1993, III-5.
The Urban Revitalization Agency (URA) was created in 1980. The URA is a Tax Increment District designed to promote the redevelopment and stimulation of investment within the Central Business District of Uptown Butte. The Agency makes loans and grants for private buildings in the Uptown area and invests in other public and private improvements through funds generated through tax increment financing.\textsuperscript{109} The establishment of the agency led to the institution of the first comprehensive preservation ordinance in the region, a county-wide historic preservation commission and historic preservation officer, and a new historic overlay zoning district in order to incorporate preservation issues at the local level into the planning process.\textsuperscript{110} The enforcement of this ordinance has been challenging and the effectiveness of the historic preservation ordinance can be debated. Regardless, the establishment of the URA was instrumental in bolstering Butte’s early preservation planning efforts.

The implementation of these early organizations and tools did not prevent the continued threat to preserving industrial heritage. In 1986, Montana Resources, Incorporated (MRI) purchased a few historic and suspended mining properties from ARCO, including the operations at the Continental Pit east of the Berkeley Pit. In order to raise the capital needed to restart underground mining operations, they attempted to tear down several historic gallus headframes for scrap metal.\textsuperscript{111} The community of Butte rallied around the cause to preserve them, and the heritage they represented. The initial effort to retain the gallus headframe on the Butte hill galvanized much of the community toward active and vigilant preservation of the sites and structures that represent the mining legacy in Butte.

\textsuperscript{110} Morin, 2009, 280.
\textsuperscript{111} Mihelich, 	extit{Drummond Views}, 2009, 94.
Figure 2.3: Map of NHL District Boundary, Historic Overlay Zoning District, and Urban Renewal Area of Uptown Butte (Courtesy of the Butte-Silver Bow Department of Community Development)
While the full spectrum of industrial heritage preservation has not yet been fully embraced by the community as a whole, these early preservation efforts in Butte laid the groundwork to slowly build a preservation constituency in the community. This evolution and reinforcement of preservation planning that came about in the 1980’s and 1990’s was necessary in order to face another great challenge to preservation, the advent of Superfund.
Superfund

Copper is not only one of the most important and heavily mined metals in US history, its extraction and processing have led to some of the worst environmental degradation because its lower grade ores tend to be much more toxic to humans than other metals, such as iron.\textsuperscript{112} The metallurgical activities in Butte and Anaconda generated substantial environmental devastation; the scale of which is hard to imagine, let alone repair.

The mining empire that produced over 30 billion pounds of metals worth more than $22 billion and resulted in the development of over 500 underground mines with nearly 3,000 miles of underground shafts and tunnels, also resulted in the development of ancillary tailings ponds, waste dumps and acid leach pads. The waste dumps were created by waste rock from the mines that was removed in order to get access to the rich veins of ore. Because it did not contain economically sufficient mineral value, it was dumped adjacent to the mine shaft. As mines grew in production, more waste was generated.\textsuperscript{113} Arsenic and sulfur laden smelter smoke and dusts, hazardous residues from beryllium processing in Anaconda, acidic and metal rich waters emanating from tailings deposits and mine drainage have all contributed to groundwater, surface water and soils which are contaminated with arsenic and other heavy metals, including copper, zinc, cadmium and lead.\textsuperscript{114}

The three Anaconda smelting operations were once the world’s largest nonferrous metallurgical facility that produced a total of nearly 200 million tons of tailings that ended up in the valley adjacent to Anaconda.\textsuperscript{115} Unlike slag, which is relatively inert, tailings readily oxidize, 

\textsuperscript{112} Morin, 2009, 6.
converting insoluble minerals into soluble ones and releasing toxic compounds in solutions and can easily wash downstream. Tailings were deposited by the concentrators in Anaconda, as well as those in Butte, washed down Silver Bow Creek and the Clark Fork River and deposited along the bed and banks of those waterways.

The centerpiece of it all is the Berkeley Pit. After it opened in 1955, the pit produced 320 million tons of ore and more than 700 million tons of waste rock. Since the Berkeley Pit closed and the pumps in the adjacent underground mine operations were shut off by ARCO in the early 1980’s, the pit has been filling with acid water laced with heavy metals. At 7,000 feet long, 5,600 feet wide, and 1,800 feet deep, it has become the largest toxic body of water in the nation. Its water level in November of 2010 was measured to be roughly 5,290 feet-- just over a mile high-- and 2.9 million gallons of water with a pH of 2.5 to 3.0 is flowing in each day.

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Figure 2.5: Composite fish eye view of the Berkeley Pit, April 2005, composite created 2008, (Courtesy William E. Rosmus, Wikimedia Commons)

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After the mining operations at the Berkeley Pit and the smelting operations in Anaconda were officially shut down in the early 1980s, the EPA became more concerned about the toxic residue left behind by the industrial operations and more interested investigating the sites. The city of Butte and the surrounding areas were officially listed on the Environmental Protection Agency’s (EPA) National Priorities List (NPL) in 1983 (the Silver Bow Creek/Butte Area was later expanded in July 1987).\footnote{United States Environmental Protection Agency, “Silver Bow Creek/Butte Area.” Region 8 Superfund Program Website, http://www.epa.gov/region8/superfund/mt/sbcbutte/index.htm. (accessed November 2011).} The NPL is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States.\footnote{“National Priorities List (NPL)” Environmental Protection Agency. last modified Friday, March 02, 2012, http://www.epa.gov/superfund/sites/npl/. (accessed: March 25, 2012).} The designated area is a very complex site comprised of three separate Superfund listings on the National Priorities List: Silver Bow Creek/Butte Area, Anaconda Company Smelter Site Area, and the Milltown Reservoir/Clark Fork River Area. Each area has multiple individual operable units that each present its own set of contaminants, site conditions, local constraints and possible remedies. Extensive studies were conducted and public hearings were held in order to determine the most appropriate remediation strategy for each operable unit area, as outlined in the Superfund process.

As a whole, the Superfund sites related to the copper mining and processing facilities in Butte and Anaconda extend from Butte’s Berkeley Pit down Silver Bow Creek and the Clark Fork River more than one hundred miles to a reservoir outside of Missoula, Montana. It is the largest Superfund site in the U.S. as measured in geographic terms.\footnote{Quivik, “Superfund’s Record,” 2000, 56.} The vast scale of the Superfund designation has also incurred significant clean-up costs. In 2002, the total estimated cost for the clean-up project exceeded $1 billion dollars.\footnote{Morin, 2009, 277-8.}
Figure 2.6: Map showing the vast scope of the Butte Area EPA Superfund sites and the extent of contamination from the Butte-Anaconda copper industry (Courtesy CTEC, Citizens Technical Environmental Committee)
Figure 2.7: Map showing the Residential Metals Expansion Area of contamination, expanded from the Butte Priority Soils Operable Unit (BPSOU), the largest area of contamination within the residential and commercial areas of Uptown Butte (Courtesy of the Butte-Silver Bow Department of Community Development)
The Superfund designation was not the first acknowledgement of the hazardous effects of Butte and Anaconda’s copper production on the surrounding environment. Beginning as early as the late 19th century, toxins like sulfur dioxide and arsenic that were contained in the smelter smoke contaminated the air, killed vegetation, and sickened livestock. The legal battles that ensued and the environmental legislation that was born out of them are a very interesting part of the region’s history.123

Despite these early environmental contamination disputes, it wasn’t until the mid-twentieth century when the United States began to question comprehensively the lasting effects of industrial activity on the landscape.124 In the 1940s, Congress began to pass laws regulating the output and transportation of hazardous materials and after concerns over environmental pollution escalated in the 1960s, the EPA was officially established. The agency conducts a variety of federal research, monitoring, standard-setting and enforcement activities to ensure environmental protection and carry out its mission “protect human health and the environment.”125 Subsequent laws passed in the 1970s focused more on controlling current and future environmental concerns and did little to address the remediation of past pollution and exiting hazardous waste deposits.126

Then, in 1980, Congress passed the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). CERCLA established environmental program and to identify significant abandoned hazardous waste sites, prioritize sites based on potential damage to human health, and plan for and execute the remediation of those sites. The program, more commonly known as Superfund, established the concept of “strict, several, and joint liability for owners of sites

123 Fred Quivik has written extensively on this subject. Refer to his published work, such as his dissertation Smoke and Tailings, an Environmental History of Copper Smelting Technologies in Montana 1880-1930, for a broader discussion of the social, legal, and technological history of the early responses to environmental degradation issues in the late 19th and early 20th century.
contaminated with hazardous wastes.” The definition of liability was retroactive; meaning that past and present landowners, lenders, operators, and anyone else associated with the site could be labeled the Potentially Responsible Party (PRP) and held liable in perpetuity for the full cost of environmental remediation of the site to pristine levels regardless of whether they caused the contamination. CERCLA stipulated that the EPA would use Superfund—a federal trust fund fed by an environmental tax on corporations, chemical and oil feed-stocks, and some direct appropriations—to immediately step in and clean up the environmental hazard and later seek compensation from the responsible party through the courts. On the whole, the Superfund program was fraught with problems and ineffectiveness and quickly became known as a bureaucratic and legal nightmare. A disproportionate share of Superfund money went to legal and administrative costs and by 1992, only about 40 of the 1300 most hazardous sites across the country had been permanently cleaned up. This was true in Butte as well. Although ARCO had purchased the property from ACM less than a decade earlier, it was named the primary PRP. Despite the claims ARCO now makes in local publications and advertisements calling itself a “partner in responsible reclamation,” ARCO initially attempted to get out of being held responsible by filing a series of suits and counter suits that consumed corporate resources and stalled reclamation efforts.

128 Ibid.
The Superfund cleanup process is complex. After a site is discovered, by the EPA or some other party, to be potentially contaminated with hazardous substances, it is entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) EPA's computerized inventory of potential hazardous substance release sites. The EPA then evaluates the potential for a release of hazardous substances from the site through a Preliminary Assessment (PA). The PA distinguishes, based on limited data, between sites that pose little or no threat to human health and the environment and sites that may pose a threat and require further investigation. If further study is required, a Site Inspection (SI) is completed. The SI collects more comprehensive data in order to determine what hazardous substances are present at a site and if these substances are being released to the environment. The data collected during the SI is used for the Hazard Ranking System (HRS), a numerically based screening system that uses information from initial site investigations in order to assess the relative potential of sites to pose a
threat to human health or the environment. The sites that pose the most serious threat are eventually listed on the NPL.132

After a site is listed on the NPL, a Remedial Investigation/Feasibility Study (RI/FS) is performed at the site. This step serves to collect data to determine the nature and extent of contamination assess the treatability of site contamination and evaluate the potential performance and cost of treatment technologies. A public document called the Record of Decision is created which outlines which cleanup alternatives will be implemented at a particular site. Based on these conditions, the Remedial Design/Remedial Action (RD/RA) phases prepare and implement the technical specifications for cleanup remedies and technologies. The majority of the cleanup process usually occurs during this phase.

The EPA must follow an extensive public review process as it analyses problems, designs solutions, and implements cleanups. Community involvement, enforcement, and emergency response can occur at any time in the process, however during the RD/RA phase in particular the community is advised continually about the progress of the cleanup though periodic progress reports and public events. It is also during this phase when cooperation with Historic Preservation interests is intended to take place through the Section 106 Review Process.133

**Section 106 Review**

While CERCLA and the Superfund program are intended to further the EPA’s mission to protect human health and the environment through the remediation of contaminated sites, they are not exempt from compliance with the National Historic Preservation Act (NHPA) and still must consider the historic resources that Superfund remediation encounters.134 The NHPA was established by Congress in 1966 in order to establish a national preservation program and

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133 Ibid.
134 Quivik, “Superfund’s Record.” 2000, 47.
encourage the widespread documentation and protection of historic resources at the federal, state, and local levels. It is the “key federal law that establishes a federal policy for the preservation of cultural and historic resources in the United States.” 135 As the “regulatory heart” of the law, Section 106 of the NHPA

“requires federal agencies to consider the effects of their actions on cultural resources before funding, licensing, or otherwise proceeding with projects that may affect historic resources listed in, or eligible for listing in the National Register of Historic Places.”136

The kinds of activities that are reviewed are broad and inclusive and include Superfund remediation.

The Section 106 review process includes the identification of potentially effected resources and a determination of whether or not those resources will be negatively affected. If an adverse effect is found, the federal agency must consider alternatives that will avoid or minimize an adverse effect. If an adverse effect is unavoidable, then the agency must adopt certain measures that will mitigate that effect. 137 Based on the site’s significance, mitigation could mean, at a minimum, documentation of the historic site prior to demolition or remediation or at a maximum, finding another way to execute the project that does not impact the site at all.

While federal laws like CERCLA and NHPA are in place to protect the established legacy of both our heritage and environment for the betterment of the public, the focus of the EPA is to “remediate the site and allocate as much of the cost as possible to the potentially responsible parties.”138 It was much less concerned with the additional requirements of CERCLA, particularly the Applicable or Relevant and Appropriate Requirements (ARARs), and has for the most part been lacking in its responsibilities to fully follow the requirements of Section 106 and 110 of the

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135 Miller, 2008, 4.
136 Ibid.
138 Morin, 2009, 278.
NHPA. The Section 106 process is coordinated by the State Historic Preservation Office (SHPO) and, like the Superfund remediation process, the public is encouraged to participate. Mark Reavis, the Butte-Silver Bow Historic Preservation Officer at the time, and SHPO fought EPA and ARCO in order to get them to comply with NHPA, follow the Section 106 process, and retain significant historic character. Those efforts resulted in the preservation planning efforts that are discussed in the following section.

Section 106 of the NHPA is intended to provide a procedural process that must be followed to determine the potential impacts of their actions on cultural resources before a permit may be issued or a project may be funded, and was not designed to prevent or delay federal agencies like the EPA from executing projects. "While section 106 is an effective tool in focusing attention on federal agency actions affecting historic resources, it does not prevent federal agencies from taking actions that ultimately harm historic resources." Thus far, Section 106 has protected the historic character of the most historically significant buildings in Butte such as hoist and engine houses, mine headframes, and other mining infrastructure and industrial buildings. However, the high level of remediation required by CERCLA cleans the surrounding mining environment to such a pristine state, that the authenticity of the industrial landscape has been compromised. EPA Superfund designation and the requirements of the contamination remediation have created unique challenges for the preservation of Butte's industrial heritage, which will be explored further in the following chapters.

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140 Miller, 2008, 5.
Preservation Planning Efforts

The threat of Superfund remediation to the authenticity of the architectural features of the mine yards and the surrounding mining landscape led to the execution of official preservation plans intended to streamline the coordination of the Superfund process with historic preservation groups and facilitate compliance with the requirements of the NHPA. The Butte-Anaconda Historical Park System Master Plan was the first comprehensive heritage planning document completed for Butte and Anaconda. Written by Renewable Technologies Inc. in 1985 with funds from a variety of local and national sources, the plan stemmed from the community desire for a coordinated approach to site management and came out of efforts made by the Butte Historical Society to extensively survey all historic resources within the historic district between 1980 and 1985.\textsuperscript{141}

The 1985 historic park system plan recognized the need for both “creative thinking and innovative reclamation” to meet both preservation goals and clean-up requirements.\textsuperscript{142} It plan acknowledged major themes represented in the historic features of the area in order to tie preservation and interpretive strategies to them, including the theme of environmental degradation and reclamation. As the EPA officially recognized Butte as a substantial site of contamination, preservationists, planners, and historians were beginning to consider the significance of the industrial heritage landscape as an environmental product of the copper mining industry.\textsuperscript{143} The plan also warned against unplanned and uncoordinated reclamation that could have negative impacts on the community and urged for the integration of preserved historic features into reclaimed lands. The effort was undertaken before the preservation community appreciated how damaging Superfund could be to cultural resources.

\textsuperscript{141} Morin, 2009, 283.
\textsuperscript{142} Butte-Anaconda Historical Park System Master Plan, 1985, 56.
\textsuperscript{143} Butte-Anaconda Historical Park System Master Plan, 1985.
The specific goals of the park system plan attempt to speak to divergent issues and interests at play within the industrial heritage landscape.\textsuperscript{144} When the plan was created, the preservation of historic resources related to industrial heritage was particularly pressing as structural remains that document the important role of mining and smelting in Montana’s past were at risk.\textsuperscript{145} One of the primary objectives outlined in the plan was the historic preservation and investigation of these key resources. The plan was also intended to relate to the community’s socio-economic goals.\textsuperscript{146} It examined existing tourism efforts, outlined proposed plans for tourism development related to historic and cultural resources, and highlighted expected tourism benefits in order to begin to address economic problems of the area immediately following the closing of mining operations in the early 1980s.

Other key objectives outlined in the plan were interpretation and education and appropriate environmental reclamation. The proposed historic park system plan proposed several interpretive themes for future heritage exhibits at 25 main historic sites. The plan also proposed different “management zones” that suggested varying levels of intervention. The fundamental concept of the management zones was related to reclamation. The degree of mitigation would depend on the degree of direct visitor contact with resource, allowing for preservation of some level of contamination at certain sites as a reminder of the environmental impacts of mining and therefore visitation would be prohibited.\textsuperscript{147}

Because the preservation constituency in Butte was not strong enough, and the Superfund reclamation process was early on fraught with ineffectiveness and delays, the 1985 \textit{Butte-Anaconda Historical Park System Master Plan} never fully got off the ground. While there was not enough momentum in the 1980s to execute the plan, the heritage park concept was not forgotten.

\textsuperscript{144} \textit{Butte-Anaconda Historical Park System Master Plan}, 1985, 6.
\textsuperscript{145} Ibid.
\textsuperscript{146} \textit{Butte-Anaconda Historical Park System Master Plan}, 1985, 87.
\textsuperscript{147} \textit{Butte-Anaconda Historical Park System Master Plan}, 1985, 96.
Regional Historic Preservation Plan, 1993

After Butte was listed on the EPA’s National Priorities List as a Superfund site, the local heritage community and the SHPO recognized the substantial potential for loss of historic resources under CERCLA and importance for EPA compliance with NHPA. Typically, SHPO monitors and rules on issues of National Register eligibility and impacts of proposed clean-up measures on a case by case basis, but due to the vast scope of the Butte-Anaconda Superfund project and the extensive potential for impacts to cultural resources due to the sheer size and significance of the NHL district, a more formally planned approach was required. SHPO and local preservation groups facilitated a programmatic agreement between EPA, ARCO, Advisory Council on Historic Preservation, Montana Department of Health and Environment, the counties of Butte-Silver Bow and Deer Lodge (Anaconda), and the town of Walkerville in order to comprehensively address historic resources throughout the area affected by Superfund activities and ensure and streamline the EPA’s compliance with Section 106. The agreement called for the creation of the Regional Historic Preservation Plan (RHPP) to coordinate the various laws and regulations that govern each separate agency, and to create positive program of economic development opportunities in Butte and Anaconda as well as a strategy for their implementation.

The RHPP is extensive, thoroughly addressing every aspect of Butte’s heritage from pre-history to the present day. It was developed by a 27-member joint committee representing the various stakeholders from Butte, Anaconda with environmental, political, and cultural resource interests. The completed plan reflects the desires of the communities of Butte and Anaconda to incorporate historic preservation and Superfund issues into overall community and economic development activities. The RHPP was intended to address three main goals: meet preservation goals as outlined by section 106, meet Superfund goals outlined by CERLCA, and meet community economic development goals by encouraging tourism and the adaptive reuse of historic structures.

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149 RHPP, 1993, I-1.
In keeping with Section 106 requirements, the plan requires the EPA and ARCO to consider fully preservation concerns and evaluate the potential impacts of remediation work to determine which significant structures would be affected and what type of mitigation would be required before work was undertaken. Completed in 1993, the RHPP combines and expands previous surveys and plans, including the *Butte-Anaconda Historical Park System Master Plan* culminating ten years of heritage planning in the district.\(^{150}\)

The RHPP builds and expands upon key ideas presented in the 1985 historical park system plan such as the heritage park concept and the incorporation of the remediation process into the preservation strategy and addresses preservation and remediation issues through distinct interpretive themes. It expands beyond the 1985 plan in order to begin to consider how the stakeholder entities throughout the vast area could be coordinated and organized around a common goal and the success of the heritage park is tied to the development of these partnerships.\(^{151}\) The RHPP also includes relevant legal docs, including description of NHPA and earlier programmatic agreements and studies.

Building on the “management zones” related to levels of reclamation presented in the historical park system plan, the RHPP outlines “performance roles” defined to reflect a site’s ability to contribute to the interpretation of the historic landscape and the probable human access to the site. These roles are also intended to provide a direction for reclamation decisions that reflect the goals and objectives set by the community and decision makers for land uses and historic resources.\(^{152}\) The zones are particularly important in the context of Superfund cleanup activities and include the following: Participatory Zone, with unlimited access that is highly developed, maintained, and fully interpreted; Controlled Participatory Zone: access is limited but site is maintained and interpreted; Observed Zone: observed from a distance, has little development, and

\(^{150}\) Morin, 2009, 286.

\(^{151}\) RHPP, 1993, V-1.

\(^{152}\) RHPP, 1993, V-10.
interpreted from viewing platform; Dormant: geographically distant, inaccessible because of fragile nature, or lost and no longer exist, and has minimal or no interpretation; Survey Required: needs additional survey work before preservation plan can be created. The performance roles outlined in the RHPP have the potential to guide appropriate preservation of every aspect of Butte’s industrial heritage.

The objectives outlined in the 1985 Historical Park Master Plan and the 1993 RHPP continue to guide Butte’s approach to heritage management in the area. The expansion of the National Historic Landmark District in 2005, completed the transformation of the two distinct cities of Butte and Anaconda into one single heritage area, connected through a shared statement of significance. The expansion of the NHL was a considerable undertaking that took fourteen years to complete. The NHL expansion designation is vital for the execution of the heritage park plan and key to any further national and international designations that may be appropriate.

**Current Preservation Work**

The preservation constituency has come a long way from its early start in the 1960s and 1970s. As Butte has evolved and preservation projects have slowly been successfully executed, the number of community members who support preservation continues to grow. The city is fortunate to have a key group of enthusiastic preservationists who continually advocate for the preservation of every aspect of Butte’s rich heritage, including its industrial legacy. Butte has also been registered as a Certified Local Government (CLG). A CLG is a preservation partnership between local, state and national governments focused on promoting historic preservation at the grass roots level. This is done through the establishment of a local preservation office led by a designated Historic Preservation Officer.\(^{153}\) This office is charged primarily with conducting survey and inventories of historic properties and ensuring that the historic and cultural integrity of those

properties is maintained. Both the past and current Historic Preservation Officers, Mark Reavis and Jim Jarvis, have worked hard to ensure that the objectives of the RHPP are carried out and that the preservation of Butte’s industrial heritage resources remains a vital aspect of continued preservation efforts.

Their work has been supplemented by various other community groups who support heritage preservation in Butte in order to foster community and economic revitalization including the Butte Montana Convention and Bureau, Mainstreet Uptown Butte, and Butte Citizens for Preservation and Revitalization (CPR). Butte CPR was founded in 1994 by a group of residents of Butte, Montana, committed to the preservation and promotion of Butte’s unique historical architecture. The organization serves as the primary preservation advocacy group for the community. Among other things, Butte CPR works to “promote public awareness of the value of historic architecture, encourage economic revitalization through historic preservation, and provide public education regarding Butte’s historic architecture.”

Their work, along with that of the Reavis and Jarvis, has been instrumental in creating a greater understanding that Butte’s heritage embodies the identity of the city itself and is therefore something worth fighting for.

Much of the major clean up at all mine yards has been executed. Some mitigation has been completed, while others are in progress. One of the successful mitigation measures that have been implemented is the construction of Montana’s Copperway, a recreational trail system that plans to convert the BA&P Railroad into paved recreational trails. Because so much of the industrial heritage resources like the mine yards were historically connected by the railway, this program is key to dealing comprehensively with the mine yards as a complete entity.

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155 Sara Sparks, Remedial Project Manager, U.S. Environmental Protection Agency, Region 8, Butte Office, In Conversation with author, January 9, 2012.
Figure 2.9: Map of the proposed Montana’s Copperway. The former Butte, Anaconda and Pacific Railroad will eventually be converted into a recreation trail that interprets the mining heritage of Butte and Anaconda. (Courtesy of the Butte-Silver Bow Department of Community Development and the Butte-Silver Bow Public Archives)

Figure 2.10: Completed section of the Copperway outside of the Anselmo Mine Yard, signage explains the history and significance of the mine.
Other significant mitigation work that has come out of the EPA cleanup involves the mine yards themselves. When Butte hosted the National Folk Festival in 2008, 2009, and 2010, the headframe at the Original Mine Yard was incorporated into the main stage of the festival and the yard surrounding it was used as an amphitheater. This spurred the development of a complete rehabilitation plan that involves the entire complex. The mine yard is permanently being converted into a park and amphitheater and the large hoist house will be converted into an event and visitors center to serve it. The success of the amphitheater during the folk festival (the Montana Folk Festival was founded in order to continue the success of the music festival in Butte) and the subsequent renovation of the mine yard for the most part has been well received. The success has brought considerable momentum to an otherwise stagnant execution of the RHPP and has sparked a renewed interest in tourism.

Figure 2.11: The Compressor House at the Original Mine Yard is currently undergoing rehabilitation into a Visitor’s Center (Photo by author, January 2012)
This work highlights competing ideas over what the mine resources should be. To some they are sacred spaces, and should always represent what they have been. They should remain a ruin and be partially maintained as a memorial to the lost industry. Still there are others who believe that historic resources should be used and made useful, given a new life in a new era. A preservation strategy that somehow strikes a balance between the two is ideal.

The headframes themselves throughout Butte have also benefited from successful preservation initiatives. In 2003, a community project was launched to light up the headframes at night with low-energy, high efficiency red LED light strings. Mainstreet Uptown Butte has partnered with the community group to facilitate and encourage financial support for the project. Since its initiation, eight headframes have been lit. In 2011, seven historic Butte headframes received a Save America’s Treasure Grant of $192,000 to stabilize and restore the steel structures. The headframes have received a substantial amount of attention with regard to historic preservation because their significance as a symbol of the town is readily accepted and getting the community to rally around their preservation is relatively straightforward. As preservation continues to evolve in Butte, there is a need to direct future advocacy in less-mainstream directions.

The majority of the preservation work currently being done in Butte is trying to merge reclamation and economic development into a single ambition in the hope that the remedies will produce outcomes a good deal more useful to the community than fields of weeds and locked mine yards. In the past few years, Butte has continued to upon its place identity in order to promote a new, and much needed, tourism industry. In 2012, they hired a heritage tourism consultant to assist community planners, preservationists, and citizens in figuring out a way to best cultivate an
interest in Butte as a tourism destination. There is potential to expand upon this interest in order to promote heritage preservation strategies, and there is also legitimate concern that a focus on tourism could have negative effects on preserving industrial heritage.

A large degree of momentum has been lost since the heritage park planning efforts were first completed, and only a very small portion of what was proposed in the extensive RHPP has been executed, nearly 20 years later. The ideas behind the RHPP and the heritage corridor are strong and Butte must regain momentum in order for the heritage park to be a success. Furthermore, because there is no widespread regulation of historic mine yards beyond the Section 106 process and no comprehensive plan for the adaptive reuse of individual mine structures, there are elements of Butte’s industrial heritage that have not been widely discussed and considered. Only a narrow scope of industrial heritage has thus far been addressed. Preservation efforts are therefore limited by what the RHPP and local preservation legislation leaves out. However, there is potential to launch larger, more effective industrial heritage advocacy initiatives that address some of the industrial heritage aspects that have been overlooked. The ways that Butte could potentially add to the heritage preservation that has been done to create a more universal and far-reaching approach to Butte’s rich industrial heritage will be discussed further in the following chapters.
Chapter 3

Expanding Butte’s Industrial Legacy and the Challenges of a Broader Approach

The industrial legacy of Butte is well known in the fields of history, preservation and industrial archeology. Whether or not Butte’s industrial heritage is significant and merits study and preservation is not the question. The question that is more compelling is what exactly defines that heritage? Preservation efforts in Butte have largely focused on the intact architectural and technological remnants related to industrial heritage, including the preservation of Butte’s iconic headframes and the adaptive re-use of the Belmont and Original Mine Yards, for example. This suggests that what defines industrial heritage in Butte is limited to the more positive and heroic aspects of the city’s extraction legacy. Butte’s industrial heritage is also comprised of elements of contested heritage that are related to the negative effects of industry, which are not always readily recognized as worthy of preservation in the same way architectural symbols and artifacts are. The inherent conflicts between the significance of the industrial landscape and environmental degradation issues make it much harder to make a case to the general community in Butte for holistic industrial heritage preservation.

While planning efforts like the 1985 Butte-Anaconda Historical Park System Master Plan and the 1993 Regional Historic Preservation Plan for the Anaconda-Butte Heritage Corridor have attempted to address a broader spectrum of industrial heritage beyond what is embedded in the most well-known mining structures and sites, this broader definition remains outside of the general comprehension of the public. A determination of the elements and ideas that define Butte’s industrial heritage and the identification of the specific challenges to understanding, preserving, and interpreting industrial heritage are important for the development of an industrial heritage strategy. The following chapter will make the case for the broader spectrum of elements that
contribute to the definition of Butte’s industrial heritage, emphasizing definitions that may have been overlooked by more mainstream approaches, in order to advocate for a broader approach to industrial heritage preservation in Butte.

**What is Heritage?**

This discussion first warrants the question: What is heritage and how do we define it? Historian Michael Pearson explains heritage as “those things we want to keep, enjoy or learn from, and pass on to the next generation, [which] includes many aspects of our cultural environment.”

Industrial heritage in particular focuses on a narrower subset of historic legacy related to both the built environment and artifacts that represent the technology and processes of a former industry inherited from past generations. Nonetheless, industrial heritage in and of itself is still unique and multifaceted. In the case of Butte, and many other former industrial sites in the United States, the industrial legacy is complex, which creates significant challenges. On the one hand, the industrial legacy is one of a degraded environment—the product of a century’s worth of producing mine tailings, slag, acid rain, and deforestation. The other legacy is one that includes the desire to preserve the same elements of industry from which the contamination originated in order to promote heritage tourism as a replacement for the by-gone industry. And although industrial heritage can encompass many things, this dichotomy is inherently at its core.

It is also important to see that heritage itself does not exist on its own but can only be considered within a cultural context. Pearson goes on to explain that “the heritage values we ascribe to places are human constructs, not immutable qualities inherent in the place, and they may change over time as the contexts of knowledge and community association change.” In that sense, the definition of heritage can and should include all things that express a human presence on

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159 Morin, 2009, 190.
an area. In relation to industrial heritage, this includes not only mining infrastructure and industrial architecture, but also the contaminated landscape created by industrial mining operations.

Figure 3.1: Example of the proximity of mine yards to residential areas. Also illustrates the waste piles adjacent to mines that once defined the landscape. (Photo by Arthur Rothstein 1939, Courtesy Library of Congress, Prints & Photographs Division, FSA-OWI Collection [LC-USF33-003115-M3 DLC])
Another key component that embodies heritage is the notion of a sense of place, something one could argue Butte has in excess. Although to some it may appear ugly, depressed, or uninspiring, Butte is a place unlike any other. As said by Butte resident Jackie Corr, “Beauty lies in the eye of the beholder. What a lot of people consider ugly, is very identifiable to people. The rickety rackety of the town itself. It has distinctiveness of place and of people that you don’t find other places.”161 Despite the challenges presented by conflicting legacies, Butte’s sense of place can and should be drawn upon to bridge the gaps in understanding regarding the conflicted aspects industrial heritage.

Three approaches are proposed in order to outline Butte’s industrial heritage comprehensively. These definitions embrace the theoretical constructs within industrial archeology, cultural landscapes, and the effect of Superfund remediation in order to both acknowledge the complex challenges that arise from a broader analysis of industrial heritage in Butte and guide resourceful strategies for preservation.

**Butte as Industrial Artifact**

As Bode Morin points out in his dissertation, *Reflection, Refraction, and Rejection: Copper Smelting, Heritage, and the Execution of Environmental Policy*, “much of America’s importance on the world stage can be attributed to its rapid growth and industrial output between 1850 and 1950.”162 Former industrial sites like mills, factories, and large-scale mining and processing operations hold great significance to American history and mark economic social and technological development. As such, they are important heritage sites. As the scope of preservation continues to expand beyond its origins, the cultural value of former industrial areas like those in Butte and Anaconda has become more widely studied and appreciated. The industrial heritage movement within mainstream preservation is even more apparent in the vestiges of industrial heritage that have

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162 Morin, 2009, 23.
been preserved within an increasingly deindustrialized world. Much of this success can be credited to efforts of organizations like the Society for Industrial Archeology, which was founded in 1971 to promote the study of industrial heritage and the history of industrial technology.

“In its scholarship, industrial archeology has sought to establish the value of material culture studies as a means of investigation, thereby expanding or even transforming descriptions and explanations of artifacts, structures, processes and environments related to a particular era of human history.” Industrial archeology maintains that “material evidence is an important adjunct to the documentary record of the past.” From this methodological base, cooperation with museums and cultural institution is obvious, and the execution of exhibits and interpretation of collections of industrial artifacts have been a success.

This definition and approach to industrial heritage has been most readily understood and implemented in Butte currently. The most successful preservation efforts in Butte have involved the industrial artifacts that represent the architectural and technological aspects of industry. The most typical example of this is the steel headframes. As the primary artifact of extraction processes, nothing is more representative of Butte’s industrial heritage. Author John Mihelich discusses the value of the Butte headframes as a representation of the legacy of industry in an article published in *Drumlummon Views, volume 3.* He explains:

“Based on the practice of underground industrial copper mining, the miners and, in turn, the rest of the folks working and living in the city carved a culture, a way of life, and a heritage on Butte Hill—represented then, as today, by the massive black structures called ‘gallus’ frames.”

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166 Mihelich, *Drumlummon Views,* 2009, 76.
Much attention and scholarship has also gone to acknowledging other industrial artifacts within Butte’s industrial landscape. One work in particular, *Butte and Anaconda Revisited: An Overview of Early-Day Mining and Smelting in Montana*, extensively documents the complexes, structures, equipment, and processes employed in every aspect of the copper mining and smelting industries. This work expertly explains the complex technologies and processes that facilitated Butte’s world dominance in copper production in order to document the technological history of industry and expand the discussion of heritage beyond the previous work that emphasized the cultural, social, and political histories of the place. This work also emphasizes the importance of these artifacts as representations of industrial heritage.

As preservation work has been undertaken at the Butte Mine Yards, efforts have been made to interpret mining equipment and artifacts in order to acknowledge Butte’s industrial heritage. At
the Original Mine, for example, the large hoist equipment in the main hoist house remains intact. As adaptive reuse plans for the mine yard are executed in order to transform the yard into an outdoor event space and visitor’s center, the hoist house and equipment inside will be retained and interpreted in order to continue efforts to convey Butte’s legacy as an industrial artifact.

Figure 3.3: Interpretation of hoist technology in the hoist house at the Original Mine Yard, (Photos by author, January 2012)

While the headframes and other mining equipment are key elements that define industrial heritage, the potential for the comprehensive interpretation of large scale industrial heritage projects in a much more wide-ranging sense has not been fully realized. The definitions of what artifacts merit the attention of industrial archeologists continue to evolve from a focus on single machines and structures to a broader study of whole landscapes, complexes of industrial buildings, linear systems that connect those buildings and sources of supply, neighborhoods of workers housing, and topographical features of the land created by industrial activity. But industrial

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167 Leary and Sholes, 2000, 95.
archeology’s seemingly narrow focus on human-made things has resulted in an oversight of how those things have affected the surrounding environment.

Preservation of Butte’s industrial heritage must go beyond defining industrial heritage as individual structures and systems to also include the landscapes, traditions, sights, sounds, and social values of a copper mining industry that also exemplify the industrial artifact. The preservation of some of these more intangible aspects of Butte’s mining industry have been addressed outside of the built environment. Other approaches employed to convey significance of place including written and oral histories, museum exhibitions, and historical productions like theater and film help to further narrate industrial heritage.\textsuperscript{169}

But there is a disadvantage in having these industrial artifacts removed from the built environment from which they originated. For example, while the mine-originated salutation “Tap ‘er light” remains in use in the local vernacular and is widely recognized throughout Montana, few fully understand how the phrase originated nor its significance as a remnant of Butte’s former industrial past. Furthermore, the sights and sounds of the mining operations were ingrained into the day to day life of the people of people in the early twentieth century. The dynamic movement and sounds of the sheave wheels at the top of the frames and the signal of the shift whistles every eight hours, can also be considered industrial artifacts that contribute to Butte’s industrial identity. Without being tied to active industry, an understanding of how these things contributed to the identity of what Butte once was is slowly disappearing. The concern is that people who did not live in Butte in that moment when the mining industry was thriving will not be able to fully understand that aspect of Butte’s industrial heritage and their historic significance will be overshadowed by the lore surrounding Butte’s legacy. Efforts must be made to tie these intangible artifacts back to the mine yards to broaden community understanding and appreciation for industrial heritage.

\textsuperscript{169} Bluestone, 2011, 17.
Butte as Cultural Landscape

While the discussions of industrial heritage are often focused on technology, structures, sites, and other material evidence and physical artifacts, there are multiple valid arguments about the meaning of a place beyond those rooted in architectural canons. Likewise, there is more that contributes to the significance of Butte as a copper mining empire than what is preserved through archival records and photographs, oral histories, and the adaptive re-use of mine yards. The layers of significance and heritage become richer when we approach industrial heritage from a cultural landscape perspective. Theories involved in the exploration of cultural landscape theory lend a multi-faceted approach and dynamic analysis of what defines industrial heritage. This perspective begins to expand beyond seeing the cultural resources of Butte as simply industrial artifacts in

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order to relate more directly to the environment in which cultural heritage was created. In short, the cultural landscape of Butte needs to be considered in order to understand industrial heritage more completely and frame the significance of the existing built environment within a broader context.

The main idea behind cultural landscape theory is that cultural forces are the key factors that shape the visible features of the Earth. “The cultural landscape is fashioned from a natural landscape by a cultural group. Culture is the agent, the natural area is the medium, and the cultural landscape is the result”\textsuperscript{171} Nowhere is this application of critical theory more appropriate than Butte. In his dissertation, \textit{Memory Infrastructure: Preservation, “Improvement,” and Landscape in New York City, 1898-1925}, Professor Randall Mason discusses cultural landscape as an anthropological notion. He explains that:

“The notion of cultural landscape as a methodology is a way of modeling the interaction between social processes and material culture. It is a fundamental concept in human geography, and though it is rooted in natural, pastoral views and peasant cultures, ‘landscape’ as a methodology is equally powerful when applied to [more] urban places.”\textsuperscript{172}

Thinking of the industrial landscape of Butte in this way, as a reflection of the culture that created it, is a powerful way to initiate alternative ways of considering Butte’s industrial heritage.

The mine yards can of Butte can also be considered as a cultural landscape through geographer Gavin Bridge’s discussion of the landscapes of extraction.

“Extraction is a primal pursuit, a business of wrestling raw materials from the earth that can be converted into value. From pits, wells, and mines, raw geology is liquidated into energy and money, a double-alchemy at the heart of modern capitalist economy...The hole is both a space of ecological appropriation in which those with social power lay claim to naturally produced materials and a conduit through which these materials are employed in the transformation of space and nature.”\textsuperscript{173}

\textsuperscript{171} Carl Sauer. \textit{The Morphology of Landscape}. (Berkeley: University of California Press, 1925)
\textsuperscript{172} Randall Mason, \textit{Memory Infrastructure: Preservation, “Improvement,” and Landscape in New York City, 1898-1925}. (PhD Dissertation, Graduate School of Arts and Sciences, Columbia University, 1999) 21.
In this sense, Butte’s cultural landscape resembles an ecological model, a system of interrelationships between land, buildings and other structures patterned by ideology, forces of nature, and industrial capitalism.\footnote{Mason, 1999, 22.}

Upon reading the cultural meaning from its landscape, the industrial landscape of Butte is one that appears to have been shaped immensely by history. What has been left behind has been compared to a battlefield, and the emotions that it evokes are no less powerful than those conjured by a battlefield itself. The industrial landscapes of Butte bring to mind contested heritage, a

\footnote{Mason, 1999, 22.}
complicated history of experiences that are both good and bad, and may "evoke emotions deeply embedded within a specific historical and cultural context."  

Bridge’s discussion of extractive landscapes looks at how social critic Lewis Mumford considered the compound cultural impression on industrial landscapes. Mumford claimed that mining landscapes represented “a triumph of human ingenuity and fortitude over the fickle reluctance of nature.” He went on to recognize that “the act of wrestling minerals from the earth has historically required the subjugation and demeaning of both nature and humankind, as faceless pairs of hands and unseen laboring backs descend into the dark, inhuman hell of tunnels to strip away the organs of nature.” Mumford’s powerful language gets at the point that at the heart of Butte’s industrial legacy are the miners who worked underground and the preservation of industrial heritage through architecture and landscape is a way to preserve their memory. The industrial landscape of mine yards and underground mine workings represent the places where hard rock miners forged strong social bonds amongst one another, developed a strong sense of pride and the highest respect from their community for their hard work. However, these places were also the sites of dangerous and horrible working conditions that led to many accidents and deaths, and we cannot forget that aspect. For these reasons, industrial heritage preservation that considers these representations within a cultural landscape is not always considered to be a community priority because the industrial landscape can evoke conflicted memories that are both fond to some and better off forgotten to others.

The Anaconda Company Smelter Stack is the monumental example of the complexities of the contested heritage that is manifested in Butte and Anaconda. “At 585 feet it is the tallest masonry structure in the world and the only surviving structure of the Anaconda smelter works.”

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176 Bridge, 2009, 45.
177 *Butte, America*, 2009.
To some, the stack was a sign of prosperity, and the constant billowing of smoke represented job security and a monument to the memory of the generations of workers who toiled at the smelter works. To others, the stack was a symbol of toxicity and pollution that had harmful effects on the environment and health of the community and represented a complex history of battles over industrial contamination.\textsuperscript{179}

Figure 3.6: View of the Anaconda Smelter Smoke Stack. Piles of black slag, a waste product of the copper smelting process, are visible in the foreground (Source: Wikimedia Commons)

The industrial landscape also represents the cultural effects of the loss of a vital industry that has resulted in a stagnant economy. It has been hard for Butte's longtime residents to appreciate the value of Butte's rich industrial heritage as an expression of community identity or to recognize the city's potential to become an economically successful heritage tourism location in the

\textsuperscript{179} Ibid.
face of such economic decline. Getting over the shock of the closure of mining and smelting operations has been challenging and many people remain shaken psychologically from witnessing the subsequent deterioration of the urban fabric.\textsuperscript{180} In 1985, Montana historian Michael Malone summed up the environmental degradation’s effect on the spirit of the state as “a fitting symbol of the wrenching death of what has historically been Montana’s greatest industry.”\textsuperscript{181}

Economic decline creates a plethora of additional challenges for the preservation of an already contested industrial legacy. Not only is there a shortage of money to put forth into preservation campaigns, but there is also a lack of energy and enthusiasm that is not easily recaptured. In his dissertation examining the conflicts between industrial heritage preservation and environmental remediation at former copper mining sites, Bode Morin calls this disenchantment with heritage preservation the "ethos of defeat" that is created by a community wide sensation of loss.\textsuperscript{182} Ethos of defeat in Butte, and other similarly significant-yet-polluted sites, is worsened by the severe contamination and the negative attention it generates. This attitude contributes to an already complicated dichotomy between the act of preserving and the act of remediating contested industrial landscapes and sites and the conflict of values embedded in the industrial legacy. Remediation is sought to remove the stigma of defeat. However, remediation can also threaten the integrity of the industrial heritage that is also valued. Preservation of the industrial landscape must find a way to allow individuals and communities “to come to terms with places in a way that pushes back against the powerful natural forces and cultural narratives that contribute to destruction” without compromising the value of the contested constructs within the rich cultural landscape.\textsuperscript{183}

\textsuperscript{180} Morin, 2009, 271.
\textsuperscript{181} Morin, 2009, 257.
\textsuperscript{182} Morin, 2009, 15.
\textsuperscript{183} Bluestone, 2011, 16.
Butte as an Environmental Product

Emerging precedents within the scholarship of industrial archeology encourage a continued appreciation of contaminated landscapes as artifacts of industrial heritage. According to historian Donald Hardesty, “while the landscapes of past industries are among the most dramatic places on earth, they can also be among the most dangerous.”184 High levels of toxic contamination that were generated at industrial heritage sites require remediation that often creates challenges for heritage preservation efforts. Despite the inherent conflict between heritage preservation and environmental clean-up work, it is politically important and intellectually vital to approach contaminated industrial sites as places of culture and memory.185 The industrial waste itself should be considered a significant layer of history that contributes to defining the industrial heritage of a place. As such, it should be advocated for and incorporated into strategies for interpretation.

According to author Daniel Bluestone, thinking critically about preservation of contaminated sites requires us to also think critically about their initial destruction. “We have a good deal to learn about historic preservation by tracing the values that promote destruction. Both preservation and destruction involve people framing narratives and stories about existing places that promote the process of holding on or letting go of those places.”186 In this sense, as related to the theories of cultural landscapes, the destruction of the surrounding landscape and the contamination created by industrial operations have as much value as a cultural informant as the architecture and structures that were constructed do.

This is particularly relevant in Butte. Former Historic Preservation Officer Mark Reavis battled with the EPA in the 1990s in order to prevent the clean-up from losing, burying and covering-up all signs of mining. As “Odd as it sounds,” he said, “those dumps are historic

185 Bluestone, 2011, 268.
186 Bluestone, 2011, 16.
resources...Butte should be a monument to a social decision: the quest for minerals."\textsuperscript{187} The quest for minerals in Butte was a destructive one, and the preservation of that cultural history should encompass the destructive effects of mining as much as it does the constructive ones.

Environmental degradation and the representation of industrial heritage as an environmental product are argued to be “the price the nation has paid for its reckless pursuit of unending economic expansion.”\textsuperscript{188} Historian Timothy LeCain, professor at Montana State University-Bozeman calls this corollary “‘America the beautiful’ as a victim of ‘America the bountiful.’”\textsuperscript{189} LeCain analyzes the links between Butte’s landscapes of industrial extraction and the burgeoning culture of consumption within the context of a public relations advertising campaign launched by the Anaconda Company in the mid-twentieth century. He argues that Butte exemplifies bountiful America not only because of its seemingly endless extraction of an essential industrial mineral, but also because its supply of copper allowed Americans to indulge in inexhaustible consumption and abundance that epitomized the American way of life.\textsuperscript{190} Within this context, the industrial landscape, with the Berkeley Pit as its centerpiece, can be considered an enduring symbol of the mineral foundations of economic prosperity and American consumption.\textsuperscript{191}

It is important to understand the contaminated mine yards and industrial landscapes of Butte as part of a broader industrial process with material inputs, products, and by-products in order to promote a critical understanding and appreciation of mining processes that could lay the ground work for understanding the processes of pollution, site reclamation, and site reuse.\textsuperscript{192} The open pit copper mining operations at the Berkeley Pit in particular came at high environmental cost. Processing ever-lower grades of ore produced ever-larger amounts of highly acidic waste

\textsuperscript{187} Morin, 2009, 23.
\textsuperscript{188} Timothy J. LeCain, “‘See America the Bountiful’: Butte’s Berkeley Pit and the American Culture of Consumption.” \textit{Montana: The Magazine of Western History} 56, no. 4 (Winter 2006): 6.
\textsuperscript{189} LeCain, 2006, 17.
\textsuperscript{190} LeCain, 2006, 7.
\textsuperscript{191} LeCain, 2006, 13.
\textsuperscript{192} Bluestone, 2011, 258.
material laced with toxic levels of heavy metals. While the environmental product of Butte’s industrial legacy produced an inexhaustible amount of copper from the pit, it also produced an equally inexhaustible amount of dangerous and enduring waste.\footnote{LeCain, 2006, 16.} By leaving tangible traces of waste from former industrial uses in place, a venue is created from which visitors can learn about human use, abuse, and inevitable stewardship of the industrial built and natural landscape. While this approach has been discussed by historians and industrial archaeologists for years, it is difficult to execute, particularly at Superfund sites.

**EPA Superfund Remediation: “Historical Amnesia”**

The EPA’s approach to the remediation of contaminated industrial sites places a primary focus on health and environmental goals in order to remove or contain toxic substances. However, many contaminated industrial sites are also treasured cultural resources that were once central to the economic development of the community and embody the very identity of a place. This puts the goal of the EPA directly in conflict with preservationists’ efforts to develop site-specific narratives of place to engage people directly with the material dimensions of history on the site.\footnote{Quivik, “Superfund’s Record,” 2000, 50; Bluestone, 2011, 262.} According to noted industrial archaeologist Fredric Quivik, “the EPA has often pursued its mandate to remediate materials with a single-mindedness that has not recognized other national priorities, such as the preservation and interpretation of important cultural resources.”\footnote{Quivik, “Superfund’s Record,” 2000, 48.} In Butte in particular, “local administrators seemed to see the historic copper industry as the enemy, and they saw the only design alternative for remediation to be the obliteration of any historic industrial features that happened to be in the way of the clean-up and to cover those areas with newly planted
Thus far, that is the only remediation strategy that has been employed in Butte at mines that have been reclaimed and re-opened to the public.

The EPA’s myopic understanding of its design objectives, and the attitude that the environmental cleanup process should take precedent over everything, is best illustrated by the recent remediation efforts at the Mountain-Consolidated (Mount-Con) Mine Yard on the Butte Hill. As seen in Figure 3.7, a HAER photograph from c.1979-1980, the mine yard was once surrounded by waste dumps, a by-product of the ore extraction process. These mine waste dumps were considered an important visual attribute of the Butte Hill. As explained in the 1985 plan, “their mass helps to characterize the operation of an underground shaft mine, indication that material was hoisted to the surface. The color and composition of the dumps visually define the make-up of Butte’s underground materials.” However, as part of the mitigation required by Section 106 and based on recommendations made in the RHPP, the site has been cleaned up and converted into a park space along a new extension of the Copperway. The main architectural elements, such as the steel headframes with foundations and the hoist house, have been retained. But all the other traces of industrial use, including its reflection of an environmental product of the extraction industry and the representation of cultural landscape, have been cleared from the site. (Figure 3.8) The industrial heritage has been compromised and to the untrained eye, the site no longer looks like a mine yard. Instead, the headframes now exist within a park like setting, serving only as industrial ruins that only faintly suggest the scale of industry that once took place here.

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197 Butte-Anaconda Historical Park System Master Plan, 1985, 62.
Figure 3.7: The Mount-Con Mine Yard before EPA Superfund designation and remediation with waste piles and toppled ore bins, c.1979-1980
(Courtesy Library of Congress and the Historic American Engineering Survey)

Figure 3.8: Mount-Con Mine Yard after EPA Superfund designation and full site remediation,
(Photo by author, January 2012)
The EPA’s priorities are keeping costs down and creating a natural looking area from an industrial wasteland. Whole scale removal of contamination and replacing it with planted grass is the most cost effective and simple way to approach a site, and they continue to use this approach to address the remediation of Butte’s industrial resources.\textsuperscript{198} While natural looking sites are a priority for EPA, they are not the only way to handle site remediation, and may not be what is desired or appropriate for every industrial heritage site in Butte. There are many ways to execute a remediation at a Superfund site, and the EPA should be forced to develop a remediation strategy that has the smallest impact on cultural resources and is the most appropriate given the location and heritage plan in place.

The urgent effort to clean and reclaim contaminated landscapes that have been designated as EPA Superfund sites has resulted in what author Daniel Bluestone calls “cultural and historical amnesia.”\textsuperscript{199} While the sites are cleaned of their toxic contaminants, their history is often also erased or compromised. Many sites are delivered for redevelopment without any tangible trace of their history, their pollution, or even their cleanup.

The EPA’s insular approach is compounded by fact that the agency in general does not have a strong institutional understanding of heritage, and is limited by a small two person heritage staff that is intended to serve the remaining 17,000 person EPA.\textsuperscript{200} At many sites, not just Butte, the EPA has been delinquent in complying with its obligations under the NHPA, and have “disregarded requirements to comply with the NHPA and neglected opportunities to couple preservation with remediation.”\textsuperscript{201} The EPA has been non-compliant or difficult to work with in many states, and SHPO has had difficulty convincing EPA that compliance with Section 106 is required.\textsuperscript{202}

\textsuperscript{198} Morin, 2009, 289.
\textsuperscript{199} Bluestone, 2011, 258.
\textsuperscript{200} Morin, 2009, 24.
\textsuperscript{201} Quivik, “Superfund’s Record,” 2000, 48.
\textsuperscript{202} Quivik, “Superfund’s Record,” 2000, 52.
To some extent, Butte has made efforts to support the preservation of contaminated landscapes as a visible symbol of their heritage, which has achieved various levels of success. Efforts have been made in the Regional Historic Preservation Plan to incorporate preservation concerns into the remediation process. However, EPA personnel on the Clark Fork project in Butte have been reluctant to embrace them and instead have focused almost entirely on the mandate to monitor the remediation of hazardous wastes. The EPA has completed and accepted the RHPP, which makes the agency believe that their obligations have been satisfied. That attitude has led them to overlook many design alternatives as they authorize the obliteration of vestiges of the areas historic base.203

The RHPP outlines that the industrial landscape beyond the Granite Mountain Overlook will not be reclaimed in order to be preserved as a memorial to the tragedy that occurred there. The EPA has insisted that any contamination will not be removed and the site will remain an authentically toxic environmental product of Butte’s copper mining industry. However, present day mining activity at the Continental Mine infringes upon its authenticity, as waste dumps continue to encroach upon the historic landscape. The importance of this is outlined by Quivik in his article published in Drumlummon Views, Volume 3. He explains:

“Butte’s environment may seem to be dominated today by the Berkeley Pit, the East Continental Pit and the mine waste and tailings that are sorted north of the Berkeley Pit that was once a valley at the headwaters of Silver Bow Creek. Gone from view are remnants from Butte’s first period, during which most mineral wealth was extracted by hydraulic means. The subsequent periods are depicted in Butte’s built environment but visual evidence linking the community to those periods continues to disappear.”204

The authentic mining landscapes of Butte must be made a priority in order to ensure their preservation. Despite their significance as a cultural landscape, they remain at risk of being lost because there is no regulation in place to ensure their continued protection.

204 Quivik, Drumlummon Views, 2009, 38.
Challenges and Threats:

There are significant challenges associated with thinking about Butte’s industrial heritage in these terms. When it comes to industrial heritage sites, above all else, the top priority is human health and safety. Beyond that, cultural resources remain a low priority after the environment and economics are concerned. While the challenges to industrial heritage preservation posed by the environmental contamination and Superfund remediation are particularly trying, they are not the only issues.

Another main challenge for industrial heritage preservation in Butte is that community engagement is limited by lack of understanding of the social value of the broader definitions of industrial heritage as an industrial artifact, a cultural landscape, and an environmental product. Furthermore, it is difficult to generate support for the preservation of Butte’s industrial heritage.
because of its sheer familiarity and accessibility. However, local and everyday sites are those most capable “of stirring an understanding of human agency and throwing into higher profile our own responsibilities as community members and citizens to the past and to the future.”\textsuperscript{205} Also, the lack of an industrial heritage constituency is also due to the nascence of the area of study. But there continues to be a growing body of literature examining landscapes and waste streams as important features of historical inquiry in fields of Industrial Archeology and cultural landscape theory. As the population of Butte becomes more distant from the period of decline and environmental consequence, and the expanded approach to industrial heritage becomes more widely discussed, it may become easier to make the case for how the more intangible and contested heritage aspects related to industrial heritage can be acknowledged. Continued discussion of the values of preserving industrial heritage in Butte and the ways that it can be carried out are included in the following chapter.

\textsuperscript{205} Bluestone, 2011, 258.
Chapter 4

The Value of Industrial Heritage Preservation and Strategies for Implementation

How we preserve industrial heritage is guided by the definitions of industrial heritage and the challenges to its preservation outlined in Chapter 3. The preservation solution must be as multifaceted as the heritage itself in order to go beyond what has already been accomplished and consider the broad historic and social constructs that created it. This chapter will first outline the greater cultural meaning embedded in Butte's industrial heritage in order to frame strategies that could be most effective for illustrating those bigger ideas. The Butte-Anaconda Historical Park Master Plan from 1985 and the Regional Historic Preservation Plan from 1993 suggested the creation of a heritage park and outlined several preservation and interpretive objectives that address much of Butte's industrial heritage. The implementation of this park concept is key to the preservation of industrial heritage in Butte. What is missing in the proposed heritage park planning, however, is a universal understanding of Butte's industrial heritage resources as a cultural landscape, an effective framework for the administration of the preservation planning efforts, and a strong preservation constituency that could facilitate the execution of industrial heritage preservation. Public engagement with industrial heritage and an effective framework for administration of a heritage park must go hand in hand in order for a comprehensive understanding of the industrial landscape to be achieved.

Social Value of Industrial Heritage Preservation

The social and cultural value of Butte’s industrial heritage makes the case for why a priority must be made for its preservation. These values are critical for deciding what to conserve and finding the source of meaning in this remarkable heritage. Whether or not Butte’s contaminated
landscapes should be preserved should be determined by whether or not the preservation of the contamination has any socially redeeming value. Anthropology Professor Donald Hardesty argues that the industrial landscape has value as an artifact of human origin.206 “Value of artifacts comes from their capacity to convey ideas. In particular, they carry meaning or evoke responses as a sign or a symbol.”207 And just like any other historic artifact, its value is dependent upon it being authentic, and not a fake or a representation. “The value of artifacts comes from their capacity as repositories of historical information, [and as such] a toxic waste dump contains information independent of written accounts, oral histories, and other pathways to the past.”208 Furthermore, “the power of toxic waste as a real artifact in its original setting can be very compelling in conveying an industry's impact on the environment and its culture, and evoke human emotions in a way that other interpretation or historic tools can.”209

Butte’s industrial landscape discloses that Butte was once the scene of a massive industrial enterprise, one in which environmental consequences repeatedly took a back seat to immediate financial gain.210 The Berkeley Pit and the rest of the area’s environmental degradation have become a symbol of the implications of material culture and the preservation of their authentic elements that convey industrial heritage can help to reinforce our social consciousness. In his article “Pennies from Hell,” author and Butte native Edwin Dobb eloquently states that the Pit, as well as Butte’s existing industrial landscape as a whole, “is a receptacle of all our sins.”211

While these environmental issues raise uncomfortable questions about desire, complicity, capitalism, and modern culture; preservation and revitalization campaigns must resist the temptation to quickly hide the realities of the industrial past in order to move on and away from the

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207 Hardesty, 2001, 23.
shame about the effects of contamination. By considering its contested legacy, Butte can become an ideal place to examine the consequences of ore extraction and reduction necessitated by the appetite for materials and teach a powerful lesson about the fragile environment. The lesson to be learned in Butte is that it is not possible to consume immense quantities of raw materials without creating ethical and environmental dilemmas of immense consequence.

The opportunity to learn from our industrial heritage is undermined if that heritage is erased, which underscores the importance of considering the preservation of contaminated landscapes as well as the inclusion of remediation and mitigation into industrial heritage interpretation strategies. Current employed strategies are too far removed from remediation process and ignore the possibility to foster a vital dialogue about the effects and values of industry through overarching site interpretation. The Superfund designation and remediation itself should be acknowledged and incorporated into interpretation efforts. Preservation strategies that address Butte’s industrial legacy must go beyond the historic “period of significance” as outlined in the National Historic Landmark nomination, and incorporate the many layers of significance that have evolved from the past to the present day, including Superfund designation and remediation efforts, that are now becoming part of history. Bluestone emphasizes the social value in preserving the degraded portions of industrial landscapes:

“A more reverent approach to the history and preservation of place on toxic Superfund sites stands to help us shape the contours of a new ecologically grounded citizenship vital to survival in an age of environmental degradation and global warming. People stand to gain a great deal by reflecting upon human actions that create and then clean up toxic sites.”

In the end, if remediation and preservation can be combined to create a platform of education, the biggest liability on the Hill could be transformed into an asset.

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The previous comparison of the Mount-Con mine both before and after reclamation serves to illustrate the effect of removing significant traces of industrial use from a heritage landscape. The broader cultural landscape becomes compromised and less comprehensible to visitors as well as residents. Moreover, “people whose lives and livelihoods were bound up with these places lose important landmarks from their locality.”215 The remediation and mitigation work at the Mount-Con emphasizes the need to protect the mining past from being erased or replaced by what Dobb refers to as a sanitized theme park full of virtual mines and signs that explain away everything forbidding and controversial about the place.216 This threat underscores the worthy task undertaken by Mark Reavis and other community activists to pursue and advocate for an

alternative vision of environmental remediation that "assumes that clean does not always mean pretty and that pretty is not always attractive."\textsuperscript{217}

Cultural Value of Industrial Heritage Preservation

The preservation of industrial mining heritage will create a monument to the industrial era in order to function as a conduit to the past. This will in turn lead to a deeper appreciation of human innovation.\textsuperscript{218} The cultural value associated with considering Butte’s heritage is best explained by Patrick Malone, professor at Brown University and past president of the Society for Industrial Archeology. He states:

“The real treasure is not the mineral wealth still locked in the bedrock but the rich cultural legacy—a legacy reflected in collective memories...and in the physical remains of the urban industrial experience. The material culture is a bridge to the past, an anchorage for countless memories. The artifacts and man-made features that form this place can be both a source of pride and a tool for understanding its complex, sometimes painful history.”\textsuperscript{219}

Malone’s analysis of the cultural value in Butte’s industrial heritage re-enforces the significance of Butte’s mining landscapes.

This idea is complimented by the scholarship of Randall Mason. In his dissertation, \textit{Memory Infrastructure: Preservation, “Improvement,” and Landscape in New York City, 1898-1925}, Mason dissects the theoretical foundations of the idea of collective memory. He explains collective memory to be “a term developed by sociologists to understand the ways in which social groups construct knowledge about the past and use it as a way of forming group identity, claim authority, compete for hegemony, assert territoriality, and so on.” \textsuperscript{220}

\textsuperscript{217} Ibid.
\textsuperscript{220} Mason, 1999, 47.
The importance in acknowledging collective memory in historic preservation is that it defines culture: “The social process of collective remembering uses material culture as one of its essential media. Artifacts, spaces, and forms endure, and naturally convey meanings between past and present...In the broadest sense, collective memory corresponds to the very definition of culture—the things and ideas passed on from one generation to the next.”

Collective memory is an essential social process of modern society. Physical space and collective memory shape one another in a reciprocal manner and the spatial representations of collective memory, like industrial landscapes, can be considered “instruments of cultural change.” “The spatialization of memory into material forms is a constitutive part of the process of collective memory; giving form to memory is part of remembering itself.” Spatialization takes form in buildings, parks, artworks, and monuments, and in Butte that it is spatialized in the mine yards and industrial landscapes.

There are distinctions between memory and history, but they are not oppositional ways of relating collectively to the past. Neither memory nor history ever disappears or dominates totally. Mason explains that:

“Memory refers to the social and individual process of intellectually recovering and representing the past in the present, remembering is inherently partial and selective, and it is shaped in an essential way by temporal, geographic and social contexts. History is more a device for recording the reality of what happened in the past, or a means of relating and interpreting the “facts” of the past and reconstructing meaning based on sets of procedural rules and norms. Memories are therefore fragments of a process, ephemeral and partial, and histories are seen as products or outcomes of interpreting the past abstracted from their contexts.”

Louis Bergeron emphasizes the value in preserving industrial heritage as a cultural landscape as related to the collective pride in the accomplishments of science, technology, and business ingenuity. He explains that industrial heritage represents:

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221 Mason, 1999, 6.
222 Mason, 1999, 15.
223 Mason, 1999, 53.
224 Mason, 1999, 5.
“a pride...in American success at its most spectacular, pride in having led the way in the realm of material civilization. Hence, monuments of American industry that have fallen into obsolescence have become part of the heritage of a nation working to find its identity through its accomplishments, through the conquest of its territory and the achievement of its independence.”

The cultural value of industrial heritage is further amplified by the emerging postindustrial economy that focuses on service and information rather than extraction, processing and manufacturing.

“Because we are so eager to shed our industrial past, well in advance of grasping the extent to which industry’s shadow is still with us—indeed, is the very stuff of which we are made. The mines, mills and factories upon which the twentieth century America was founded receive scant attention in the popular stories we tell about the period, and when they are acknowledged, it is using from the perspective of heroic valorization or naïve disdain.”

Within the context of these theoretical constructs, the significance of industrial heritage displayed in the cultural landscapes of Butte and the value in their preservation is clear.

The conflict between collective memory and the official memory is reflected in the lore that is perpetuated in Butte regarding its heritage and historic base. “For those who do acknowledge that indebtedness and wish to grasp what it means in human terms, the challenge lies not in finding people willing to talk freely about their culture, but sorting through the welter of tales, fables, and downright lies they tell about the place.” The people of Butte often want to remember the glory days, which perpetuates the lore. There is concern that this will have a negative effect on the execution of Butte’s preservation strategies. While Butte’s legacy of its extractive past should indeed be embodied in the interpretation and preservation related to industrial heritage, it is important that the more contested aspects of its history also be acknowledged and understood in order for authentic and wide-ranging industrial heritage preservation to be achieved. Industrial

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heritage preservation should strive to move beyond the lore that embodies that history to get at something much more authentic.

Figure 4.2: Remnants of working mine shaft at Mount-Con Mine yard. Was one of the deepest mines on the hill, and now only its slogan "Mile High, Mile Deep" remains as a monument to the prominence this mine once had. (Photo by author, January 2012)

Execution of the Heritage Park

The social and cultural value of Butte’s industrial heritage makes it clear why it must be a primary consideration in heritage preservation planning. But how to ensure that industrial heritage is understood and in turn preserved and interpreted in Butte is challenging. By focusing on the extensive work done by previous planning efforts, particularly the plans to develop a heritage park, Butte can take advantage of its historical significance and make the most of its interpretive potential to share a story of profound cultural value.

The Heritage Park idea incorporates many key objectives that make it an ideal starting place for the preservation of Butte’s industrial heritage. The plans for the heritage park proposed by both
the 1985 *Historical Park System Master Plan* and the 1993 *RHPP* underscore the importance of achieving a balance between reclamation objectives and a need to preserve the historic industrial landscape, which is a primary concern for the preservation of industrial heritage. The way to utilize and celebrate industrial heritage continues to be debated. Among the number of appropriate strategies that could be employed, not one singular plan can be applied to the vast industrial heritage resources of Butte as a whole. A combination of innovative and traditional preservation objectives within any proposed heritage park plan would be most effective.

Industrial degradation can have a negative visual impact on cultural resources and reclamation can be used to mitigate that visual impact in a way that complements and harmoniously blends cleanup with historic resources to enhance visual quality, like what was undertaken at the Mount-Con Mine Yard. However, an authentic industrial landscape that has not been reclaimed, or reclaimed to a lesser extent, can be evocative of the broader social values inherent in the degradation. An industrial heritage preservation campaign that results in a varied landscape of reclaimed and preserved industrial sites could be pleasing if all of its components are well integrated. The 1985 historical park system master plan refers to this as “culturally sensitive reclamation.” The combination of restoration and interpretation of historic features can produce a view shed that is more interesting that if it were dominated by a single uniform landscape.

Another asset of the heritage park plan is in the way it addresses the mine yards themselves, also emphasizing a need for a balanced approach. The heritage park urges for the preservation of some mine yards as they are, stabilized ruins left as monuments to the industrial era, and the restoration of others in order to be restored and adaptively reused. An example of this is has been achieved at the Belmont Mine Yard. The hoist house was restored and converted in to a senior citizens center in the late 1990s.228

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228 Jim Jarvis, Historic Preservation Officer for Butte-Silver Bow, in conversation with author, January 2012.
The execution of the heritage park plan makes the most sense for completing effective industrial heritage preservation in Butte. Also, because so much planning and studies have already gone into it, there is no need to begin to craft a new plan. However, suggestions could be made for the incorporation of other objectives that would more directly address the industrial heritage resources of Butte as a holistic cultural landscape.

The expansion of the NHL in 2005 was key for creating a heritage area with a single narrative of significance. However, the period of significance for the heritage area, which includes Anaconda, ends in 1934. Furthermore, analysis and broader discussion of the social and cultural values of Butte as manifested in the industrial heritage landscapes is only minimally addressed. The interpretation that has been partially executed within the proposed park, particularly along the Copperway, does not address the industrial sites fully as a cultural landscape. As the interpretation plans laid out in the heritage park proposals are carried out, the interpretive base must be
expanded in order to address the remediation activities of the postindustrial era. Because the Superfund reclamation process can have substantial effects on the appearance of the landscape, the acknowledgement that an additional force other than the industry has contributed to the landscape is imperative.

Despite the well thought out and appropriate strategies proposed in the heritage park plan, the execution is unfocused. Momentum has been lost in the nearly twenty years since the RHIPP was completed. While some things, including sections of the Copperway, have been implemented and were well received in the community, there is still much that could be achieved. The proposed heritage park is vast, and the execution of the plan as a whole is a daunting task.

Two main elements are needed in order to facilitate the execution of the plan. The first is an overarching framework and administrative body that can coordinate the numerous governmental entities and community stakeholders in order to guide the execution of the park. The other element required is a larger constituency of support. Interpretation and education can also foster a larger appreciation for these industrial features which can mitigate what would otherwise be the negative visual impact of their presence.

**Administrative Framework for Heritage Park**

The lack of any administrative framework or designated advocacy group tasked with the execution of the heritage park plan has been detrimental to maintaining momentum needed to sustain excitement and interest among the public. As a result, very little of the proposed heritage park elements have been executed. A consideration of international examples that have policies and approaches that speak to what is needed in Butte is one way to begin to find an administrative framework that could best help the park plan come to fruition. The United States not unique in its concern for industrial heritage, and international conventions and organizations have set
precedents for the preservation of industrial heritage abroad through the creation of charters and
documentation methods to classify and interpret industrial heritage in different ways.

We can first look to international examples for guidance. The International Committee for
the Conservation of the Industrial Heritage (TICCIH) is “the world organization representing
industrial heritage and is a special advisor to ICOMOS on industrial heritage.” The Nizhny Tagil
Charter for the Industrial Heritage created in July, 2003 was originated by TICCIH and is intended to
serve as the primary document to guide industrial heritage preservation efforts around the world.
It outlines definitions and values of industrial heritage, guidelines for documentation, maintenance,
and interpretation of industrial heritage resources, and parameters for what legal protection of
industrial heritage resources should entail.

The recommendations for legal protections are particularly interesting given Butte’s
deficiency in this area. The most applicable recommendations are:

III. The most important sites should be fully protected and no interventions allowed
that compromise their historical integrity or the authenticity of their fabric.
Sympathetic adaptation and re-use may be an appropriate and a cost-effective way
of ensuring the survival of industrial buildings, and should be encouraged by
appropriate legal controls, technical advice, tax incentives and grants.

VI. Government should have specialist advisory bodies that can give independent
advice on questions relating to the protection and conservation of industrial
heritage, and their opinions should be sought on all important cases.

VIII. Associations and societies of volunteers have an important role in identifying
sites, promoting public participation in industrial conservation and disseminating
information and research, and as such are indispensable actors in the theatre of
industrial heritage.

The application of these guidelines would be beneficial in ensuring the preservation of Butte’s
industrial heritage landscapes.
World Heritage

The best known international evaluation standard is the World Heritage List. Although it is not widely implemented in the United States, internationally it remains among the most effective mechanisms for the protection of the best and most representative elements of the world’s cultural heritage. World Heritage provides a designation framework that addresses the broad definitions of industrial heritage is needed to ensure that all aspects of industrial heritage are addressed in preservation planning efforts. As a preservation tool, it reflects the language and approach to cultural landscapes and industrial heritage that should be considered in the Butte when developing strategies for industrial heritage preservation.

The World Heritage Convention was adopted by UNESCO (United Nations Educational, Scientific, and Cultural Organization) in 1972 in order to recognize that “parts of the…heritage are of outstanding interest and therefore need to be preserved as part of the world heritage of mankind as a whole.” World Heritage designations can apply to “any form of nonmoveable human achievement.” Listings typically included individual historic sites, monuments, sites and districts, but was expanded to recognize cultural landscapes in 1992.

Key criterion of listing that pertain to Butte in particular include: “ii, exhibit an important interchange of human values, over a span of time or within a cultural area of the world,” and “iv, be an outstanding example of a type of building or architectural ensemble or landscape which illustrates a significant state in human history.”

The fundamental touchstone of World Heritage designation is the concept of “outstanding universal value” which refers to the heritage of humankind as a whole. Idea of universality in

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230 Ibid.
relation to the cultural heritage is important, that it has significance that is relatable on a global scale. The Industrial Revolution has made significant contribution to universality in the form of engineering and technological masterpieces of bridge design, and construction, the spanning of continents by railways, the exploitation of mineral resources, and the creation of completely new categories of architecture.”234

Butte’s international significance makes it an ideal candidate for world heritage designation. World Heritage designation gets at the cultural landscape aspects that need to be considered. Inscription on the World Heritage List represents little more than international recognition of the wealth of cultural properties on their territories. More fundamental result of listing is the general raising of the public profile of the heritage public and consciousness of the value of the monuments and sites, something that is much needed in Butte. Awareness on the part of governments and citizens alike of the international esteem of the site has often resulted in greater consideration being given to other manifestations of the cultural heritage and a general rise in the level of protection and conservation.235

It is worthwhile to note the inadequate representation of industrial heritage on the World Heritage List. In 2000, there were only 15 industrial sites and monuments list on world heritage list of 553.236 Furthermore, where sites are recognized is mostly Europe. Also found around the world, but none have been designated in North America.237 England has the most industrial-related sites than any other country, due to its reputation as being home to the birth of the industrial revolution. While the industrial revolution originated in England, it came of age in the United States. This represents a terrific void in the recognition of industrial heritage of the world. The World Heritage Committee has acknowledged this imbalance and made efforts to counteract it. Thematic areas underrepresented on the list were identified as early as 1992 including industrial

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234 Cleere, 2000, 32.
235 Cleere, 2000, 40.
236 Cleere, 2000, 33.
237 Shackel and Palus, 2006, 52.
heritage, cultural landscapes, and the heritage of the 20th century, all of which relate perfectly to Butte. ICOMOS sought collaboration of TICCIH and major studies have been undertaken. This suggests that the designation of industrial heritage sites to the World Heritage List have become a priority and national and international organizations will work together to ensure this void in recognition of the heritage of the world is filled.

World Heritage designations do not have much political support in the United States and are difficult to implement as a result. Government planners in the United States are skeptical and even hostile to such initiatives and instead focus on designations within our existing National Park Service framework. Although these the challenges associated with implementing World Heritage designations discourage a feasible implementation of this tool as an administration framework option, it is worthy to consider the way World Heritage approaches cultural landscapes preservation. The language in the objectives reflects the way we should be thinking about cultural landscape preservation in the United States, and hopefully preservationists can continue to work toward giving World Heritage more of a presence in United States preservation efforts. In the meantime, we need to continue to work within the policy framework that is available. In the United States, and Butte, that framework is provided by the National Park Service.

**National Park Service and National Historic Park Designations**

The National Park Service (NPS) is primary federal government body that manages cultural and historic resources in the United States. The National Park Service has its origins in the preservation and interpretation of natural resources, is inclined from its creation to employ ecological interpretations whenever possible.”


The National Park Service interprets the biological, as well as the geological features of the surrounding environment within its heritage areas and national parks. Several NPS national parks and heritage areas have been developed to

create a collective memory of labor and industry and recognize the industrial age in the United States. Additionally, like the World Heritage Convention, the NPS also has a set of framework in place to acknowledge cultural landscapes. Within the NPS, properties that demonstrate the intersection of people and place are referred to as “cultural landscapes” and “traditional cultural properties.”

_NPS Preservation Brief 36: Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes_ defines cultural landscapes as “a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic even activity, or person or exhibiting other cultural or aesthetic values.” Cultural landscapes within NPS framework include the following categories: historic sites, historic designated landscapes, historic vernacular landscapes, and ethnographic landscapes. Given Butte’s extensive history and collection of existing cultural and architectural resources, from mine related resources like the mine yards and headframes to the architectural character of its different neighborhoods, it is the ideal location for consideration as a cultural landscape. However, the NPS approach to cultural landscapes is limited. In comparison to the World Heritage designation guidelines for cultural landscapes, the guidelines outlined in Brief 36 seem much more focused on the natural components of cultural landscapes such as trees and landscaping elements. Discussion of how to evaluate the social constructs and values embedded in cultural landscapes and how they should be preserved and interpreted is overlooked. This shortcoming speaks to a larger issue at play in the field of preservation as whole and further highlights a void within preservation framework in the United States that overlooks industrial heritage and cultural landscape preservation. Thus, the industrial heritage resources of Butte exemplify a “case of the concept of

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239 Shackel and Palus, 2006, 53.
241 Morgan, Morgan, and Barrett, 2006, 709.
place that diverges from the way place is considered with legal historic preservation framework available in the United States.”

Another option for national designation framework within the United States is the National Historic Park designation of the National Park Service. The concept of a new kind of national park emerged in the 1960s, based on the idea that architectural and cultural sites were worthy of commemoration in the same way as battlefields and places of scenic beauty were. By the late 1970s, “heritage areas” like Lowell, Massachusetts became another innovative and interdisciplinary way to recognize cultural resources and implement re-development strategies for decaying industrial areas. The heritage park concept developed within the National Park Service, and proposed for the industrial heritage resources of Butte, reflects a growing trend toward the development of heritage corridors, areas, outdoor museums that have the ability to extend the range of potential conservation and interpretation to encompass landscapes, communities, and regions.

The initial idea for a heritage park that was developed in the Butte-Anaconda Historical Park System Master Plan in 1985 was based on this NPS National Park program, and official designation by the NPS was the end goal. However, NPS designation was initially rejected because of the prior designation of the Keweenaw National Historic Park in Michigan’s Upper Peninsula. The Keweenaw shares a similar history with Butte as an industrial copper mining area that is significant in American mining history and the designation of two new copper-industry themed national parks at the same time was not practical. However, while the sites share common themes of development and value as industrial artifacts, Butte is very different in its industrial heritage of environmental consequence, and represents a much more complex story regarding the conflicts

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242 Morgan, Morgan, and Barrett, 2006, 708.
244 Leary and Sholes, 2000, 98.
between heritage preservation and environmental cleanup. For these reasons, NPS designation is worth revisiting.

The NPS designation in Butte could be based on what was done in Keweenaw, Michigan. The Keweenaw copper district is comprised of several sites along a 100 mile stretch of the Keweenaw Peninsula on Lake Superior. It differs from Butte in that the area is relatively out of the way of any large cities and is set within the picturesque wooden environment of northern Michigan. Because of its large historical and cultural significance, paired with its rich scenic beauty, the area easily became a priority for designation by the area's board of tourism and other political figures.\textsuperscript{246} The industrial heritage resources of Butte are unique in that the city of Butte has grown around them and they are much more accessible than many other mining heritage sites.

The Keweenaw copper district is set up around two primary anchor sites, the Calumet Unit and the Quincy Unit. Each unit is set up to orient you within the larger heritage area. Certain key sites are under the control of the NPS and have been restored and interpreted, while the majority of sites within the park remain under private ownership. A visitors center within the NPS Headquarters at the Calumet Unit in the former Calumet and Hecla general office building informs visitors of the various programs, self-guided tours, museum exhibits, and recreation opportunities that are available.\textsuperscript{247} A similar system could be set up at a National Park in Butte. The Anselmo Mine is the most intact mine yard in Butte. Almost all of its original mine related structures remain intact, and would be an ideal place for a NPS anchor site in Butte. A similar anchor site could also be established in Anaconda, to help facilitate equal interpretation there as well.

Because the copper taken from the Michigan mines was purer, it did not require as much processing as those that were found in Butte. As a result, the Keweenaw district did not experience as much environmental damage as Butte and Anaconda did. Without the challenges associated with

\textsuperscript{246} Morin, 2009, 303.
remediation, the NPS was more willing to get on board. However, the opportunity to learn from the values embodied in Butte’s industrial legacy makes the case for why NPS designation in Butte should be pursued.

Contextual studies of the various structures and industrial landscapes are required in order to receive NPS National Historic Park designation. The completion of the expansion of the NHL district was a necessary step before any broad designations can be applied. Because one cannot understand the mining legacy through the yards alone, it is necessary to incorporate smelting facilities in Anaconda, central business district of Uptown Butte, workers housing throughout both communities, and the polluted and altered industrial landscape into any proposed designation. There is a need for focused site development across the broad regional context that exists in Butte and Anaconda, but it is important to keep the project manageable and focused on the heritage area outlined in 2005 NHL expansion.

NPS designation would be beneficial for Butte because it is a way to achieve what is missing from the current heritage park plan for Butte. First of all, NPS designation would provide an overarching administrative body that can pull all elements of strategy and stakeholders together. The NPS designation places the importance on multiple properties as a whole rather than on individual buildings to provide a richer sense of context. Public and private partnerships within the NPS framework can foster a cooperative relationship among all the stakeholders to achieve preservation. In this way, the NPS could act as an administrator for the partner organizations, organizing the preservation efforts around one voice and facilitating continuous execution of the heritage park proposals.

Furthermore, national and international designations like NPS and World Heritage are the best way to move beyond the community based preservation at the grass roots level. The broader scope of the designations legitimizes those initial preservation and advocacy efforts and shows the community through outside appreciation and scholarship that Butte is an extraordinary place and it
deserves the highest level of industrial heritage study and preservation. Public engagement is key for creating support for industrial heritage preservation in community.

**Protection and Regulation of Key Authentic Mining Landscapes**

National Park Service listing does not address another important aspect of industrial heritage preservation, the preservation of the remaining authentic and un-reclaimed landscapes. The overarching framework created by NPS will help, but what is really needed is a local advocacy effort aimed at protection of these landscapes is crucial. The only way to ensure protection is constant vigilance. It is essential to ensure that technological and historic values that give the landscape cultural significance are not destroyed by overly enthusiastic redevelopment schemes. Vigilance from a third party advocacy group aimed at both local and national governing bodies would provide checks and balances to assist in the execution of successful preservation planning efforts.

The area that should be given priority in this regard is the industrial landscape near the Granite Mountain/Speculator Mines. According to Sara Sparks, Remedial Project Manager at EPA’s Butte office, 109 Acres of landscape behind the Granite Mountain Memorial are protected and will not be reclaimed.\(^\text{248}\) However their authenticity and ability to convey their social value as an environmental product of industry and a cultural landscape is being threatened by encroaching waste dumps from the adjacent ongoing Continental Mine operations. This advocacy effort must push for preservation of existing authentic mining landscapes before their integrity is compromised. Comprehensive management and enforcement is key for the preservation of these landscapes to be effective.

\(^{248}\) Sara Sparks, January 9, 2012.
Education and Advocacy

The importance of continued education and advocacy efforts to cultivate public engagement with industrial heritage cannot be understated. Advocacy efforts must focus on why industrial heritage is worth preservation and developing creative ways to engage the community in industrial heritage efforts. The mine yards and industrial landscapes are strongly tied to an infrastructure of community history and memory and rallying around their preservation is an opportunity to galvanize citizenship.

Daniel Bluestone explains that the “approach to industrial sites and the effort to use site interpretation to make citizens more aware and engaged in pressing issues related to the future from and nature of community life is part of the broader effort to come to terms historically with everyday landscapes.” He goes on to explain that "history is no longer something set apart, detached, captured in studies of the houses of a wealthy elite who could command the services of famous architects. We can now begin to take seriously everyday places where most people live, work, and visit.”

Butte offers tremendous potential to engage the work of citizens and communities. As Bode Morin’s analysis of the ethos of defeat describes, the positive celebration of heritage is the best way to re-engage the community and recapture a pride of place. This will draw attention away from the declining mineralogical importance of the place, alleviate the sense of defeat, and rejuvenate the collective place identity. Although Butte has always had a reputation for being a dirty and ugly place due to its primary mining industry, local residents still retain an extraordinary sense of pride in their community. Preservation needs to build upon the city’s strong pride and sense of place in a positive way. In many ways, that strong community pride can often be misplaced, and contributes to a lack of understanding of where the strength of identity tied to place originates. Education and

249 Bluestone, 2011, 268.
250 Ibid.
251 Morin, 2009, 16.
advocacy can help the broader meaning of Butte’s industrial heritage come into focus historically and strengthen people’s understandings and attachments to them. Butte is about more than the lore that is often associated with it, and a broad understanding of industrial heritage and the meaning behind it will make the full value of Butte more clear.

The education effort will continue to build upon the strong foundations that have been established. The Copperway has enormous potential to emphasize the value in industrial heritage and teach people about the positive and negative effects of industry. The reclamation process needs to be added to this effort in order to reflect the value of heritage that is embodied in the reclamation process itself. As the heritage park continues to be developed, all interpretation should distill all the meanings of why the place important. The end goal is to create a more richly textured record of the industrial built environment. The educational potential of the industrial heritage resources of the area is unlimited. “At all levels, from general to technical and academic, the Butte-Anaconda landscape has an exciting, important story to tell.”252

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252 Butte-Anaconda Historical Park System Master Plan, 1985, 6.
Figure 4.4: View of Butte from top of the former mining district at the Mount-Con mine yard. The reclaimed BA&P Railroad that has been converted into a section of the Copperway recreation trail is in the foreground. (Photo by author, January 2012)
Conclusion

In the postindustrial era, the discussion of the importance of our collective industrial heritage and what defines it becomes more important than ever. In Butte, a place once known as the “Richest Hill on Earth,” industry has had a powerful impact upon the cultural landscape and has defined its sense of place. Butte bears social and physical scars of one of the longest lasting and lucrative mining runs in the world. The large scale consequences of mining have resulted in extensive environmental degradation of the landscape resulting in one of the largest EPA Superfund sites in the United States. The rich industrial heritage amidst extensive environmental contamination creates a profound dichotomy between heritage stewardship and environmental conservation, creating incredible challenges for industrial heritage preservation.

Butte’s legacy is first and foremost connected to its copper mining history, but it continues to evolve and now includes the task of repairing the widespread damage of copper extraction and processing. As Butte’s legacy evolves, so too must the way we consider what its industrial heritage entails and how we approach the preservation of it. It is important to understand industrial heritage as an industrial artifact, a cultural landscape, and an environmental product in order to facilitate industrial heritage preservation that is both holistic and successful.

Butte retains what can be considered the “power of place.” There is a connection between people and places crucial to a sense of collective and individual identity and heritage. The past is never out of sight, and memories are always present. “In Butte, you feel the force of events and experiences that affected many thousands of people. You see the unmistakable cultural layering in streets and mine yards. It is historic, but it is not frozen in time….Its physical treasures include landscapes from many periods, earliest days of silver mining through the present day operations at
Because we are all connected to places like Butte, it represents collective industrial memory on a broad scale. The social and cultural value of its industrial heritage reinforces the importance of a fundamental, widely held understanding of industrial heritage as well as and an appreciation its appropriate preservation. There is much to learn about the consequences and effects of mining and industry, and Butte’s industrial heritage provides the perfect platform for it.

Previous preservation efforts have attempted to highlight the importance of preserving Butte’s industrial heritage and have had limited success. Out of those efforts came the development of creating a heritage park among the cultural and industrial resources of Butte and Anaconda. The main ideas and goals within the plan are valid and continued execution of the plan should be made a priority. The importance of industrial heritage preservation and the challenges associated with it presented in this work emphasize the need for effective and wide-ranging interpretation, and the creation of the heritage park is the first necessary step toward achieving this significant goal.

However, advocacy and administrative challenges have slowed the progress of the plan’s execution and have limited its success. A larger administrative framework is needed to coordinate the numerous stakeholders and guide the complex task at hand. A look at international examples demonstrates the potential for the appropriate recognition and protection of cultural landscapes in the future, but cannot be the most effectively applied within our national context. And because National Park Service designations and approaches to cultural landscapes are limited, all we can do is attempt to find a balance between the scope of international standards that exist that have potential to be applied in the future and the regulatory framework we have to work with here in the present.

In the end, industrial heritage preservation needs to reflect a balance between creating a broad understanding of cultural landscapes and the remediation of contaminated industrial sites.

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In Butte, the goal is to combine innovative and traditional methods in order to come up with a strategy that addresses all aspects of the area’s heralded industrial heritage. An effective industrial heritage strategy must balance environmental requirements of the EPA with the maintenance of the authenticity of the cultural landscape. Preservation of Butte’s mine yards and industrial landscapes should be treated with respect while still providing them with new uses and interpretative programs. Maintaining an industrial landscape conveyed through the reclaimed, reused, and ruins of former mining sites will also contribute to the creation of a vibrant economy and mitigate the stigma of decline and degradation.

The discussion of Butte’s industrial heritage illuminates a bigger challenge within the field of preservation that is becoming ever more pressing. In the postindustrial age, communities throughout the country will need to make decisions about how to deal with these industrial landscapes, and the tools we use to understand and preserve industrial heritage will need to continue to evolve. Preservation as a whole needs to realize that “industrial heritage is not only about the machine, but it is also about the life, survival and the recounting of workers’ stories about resistance to exploitation. These regionally, nationally, and internationally recognized spaces...are places to remember, and memorialize.”255

As Butte continues to remake itself and define itself in the postindustrial era, the preservation of critical parts of its mining heritage and its cultural traditions are incredibly important. These resources are vital for future generations to experience and are critical for understanding and appreciating the industrial heritage of the United States. As Butte moves forward into the twenty-first century with new generations of residents and a renewed sense of place, it will resonate with an understanding of its past and lasting price it paid for the red metal that this nation could not do without.256

Figure 5: The Diamond Mine yard. (Photo by author, January 2012)
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Figure 2. Map 2, Butte, Montana, Richest Hill on Earth.