Annotated Bibliography

Blow, A. A. “The Geology and Ore-Deposits of Iron Hill, Leadville, Colorado.” In *Transactions*

*of the American Institute of Mining Engineers. Vol. XVIII.* New York: American Institute of Mining Engineers, 1890. <https://www.google.com/books/edition/_/0sBLAAAAYAAJ?hl=en&gbpv=1&bsq=leadville>.

In this essay, A. A. Blow discusses the topography, ore-deposits, and mining techniques of Iron Hill, a mountain around 2.5 miles east of the city of Leadville. This source gives me important contextual information pertaining to the mining techniques and nature of ore deposits near Leadville on Iron Hill and the surrounding area. With this information, this essay bolsters my understanding of the ease and/or difficulty with which miners extracted silver ore east of Leadville around the time of the Colorado Silver Boom. This source will provide me with primarily qualitative information as opposed to quantitative data.

Borden, W. W. *Borden’s Leadville: A Treatise on Leadville, Colorado*. New Albany, IN: Frank A.

Cannon, 1879. <https://archive.org/details/GR_5359/mode/2up>.

In this travel guide, W. W. Borden provides an in-depth description of ways to travel to Leadville in 1879 including train routes, as well as stagecoach roads and mule tracks taken when railroad tracks end. He also provides in-depth descriptions of the buildings, services, mines, and inhabitants of Leadville, CO in 1879. I will primarily use this source to understand methods of transportation into and out of Leadville prior to railroad lines being built in the town itself. I will also use this booklet to compare the growth of Leadville from its initial population explosion at the beginning of the Colorado Silver Boom, to the final few years of the boom in the early 1890s before silver price crashes depopulated much of the city after 1893.

Burnell, James R. “ON-007-08D Historic Metal Mining Districts of Colorado (Data) –

v20201112.” Golden, CO: Colorado Geological Survey, 2015. <https://coloradogeologicalsurvey.org/publications/historic-metal-mining-districts-colorado-data/>.

This GIS data package includes a statewide map of all of Colorado’s historic mining districts. This “ready-made” GIS data layer will provide me with a map layer that maps the historic mining districts around Aspen and Leadville established in the late 1800s during the Colorado Silver Boom. Additionally, if you click on individual mining districts on this layer, you can access a link that takes you to an even more detailed county-wide map of mining districts for deeper analysis of these layers. This map does not provide information as to when the state established these mining districts or what minerals and/or metals were mined in each district, but I will be able to use other sources in this bibliography, such as “The Geology and Ore-Deposits of Iron Hill, Leadville, Colorado” to determine these details and add them to the relevant mining districts on this map layer.

Buys, Christian J. *A Quick History of Leadville*. Montrose, CO: Western Reflections Publishing

Company, 2004. <https://archive.org/details/quickhistoryofle0000buys/page/n3/mode/2up>.

This book details a brief history of Leadville from its founding up to the early 2000s. To remain within the scope of this project, I will only be using the sections discussing the founding of Leadville in the 1870s to the mid-1890s when the Colorado Silver Boom ended. I will primarily use this book to contextualize what life was like in the city and the mines during the silver boom times. I will also use this book to understand the role of the ore smelting industry in Leadville’s economic and population growth during the Colorado Silver Boom. In order to be usable, silver ore had to be smelted down to pure silver, a process that provided numerous economic opportunities in Leadville, but also a significant number of negative environmental impacts as smelters spewed toxic chemicals into the city’s air.

Cappa, James A., and Paul J. Bartos. “RS-42 Geology and Mineral Resources of Lake County,

Colorado (Data and Report).” Denver, CO: Colorado Geological Survey, Department of Natural Resources, 2007. <https://coloradogeologicalsurvey.org/publications/geology-mineral-resources-lake-colorado/>.

This GIS data package includes shapefile data for geologic and mineral resources present in Lake County, Colorado, where Leadville, Colorado is located. This data package also includes a detailed report from the Colorado Geological Survey that chronicles the mining and geologic history of Lake County, Colorado as well as mineral resources in the county that remain exploitable today. I do not intend to use this GIS data in my final interactive web map as I intend to use “ON-007-08D Historic Metal Mining Districts of Colorado (Data) – v20201112” instead due to its coverage of both Aspen and Leadville’s nearby mining districts. However, I will use the data from this source to check the accuracy of the other shapefile of mining districts I will use to represent mining districts within Lake County on my final map. I will also use the report this data package contains to better describe mining methods and miner motivations in and around Leadville in the late 1800s.

Cram, George Franklin. *Colorado*. Scale ca. 1: 1,170,000. “David Rumsey.” 1899. Accessed

April 2, 2024. <https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~353029~90120324:Colorado->.

This map depicts the railroad lines of the State of Colorado in 1899, a few years after the end of the Colorado Silver Boom. I intend to georeference this map onto a basemap to demonstrate the markedly rapid development of rail connections in Leadville and Aspen during the Colorado Silver Boom and how those rail connections likely facilitated increased population growth in these cities.

Eccles, S. W. *Map of the Denver and Rio Grande Railway Showing Its Connections and*

*Extensions Also the Relative Position of Denver and Pueblo to all the Principal Towns and Mining Regions of Colorado and New Mexico*. Scale ca. 1:760,320. “Library of Congress.” 1881. Accessed April 2, 2024. <https://www.loc.gov/resource/g4311p.rr003990/?r=0.675,1.029,0.364,0.263,0>.

This map depicts the railroad lines of the State of Colorado in 1881, shortly after the beginning of the Colorado Silver Boom. I will use this map similar to other railroad maps in this bibliography as I plan to georeference it onto a basemap to demonstrate the state of the Colorado railroad network and its connections to Aspen and Leadville in the early years of the Colorado Silver Boom. Of particular note on this map is the absence of a railroad connection in the city of Aspen, a fact that I want to highlight as Aspen’s population explodes from silver mining and railroad companies begin to take note.

Emmons, Samuel Franklin. *Geology and Mining Industry of Leadville Colorado with Atlas*.

Washington, D.C.: Government Printing Office, 1886. <https://pubs.usgs.gov/publication/m12>.

This report from the USGS details the state of the mining industry and its interactions with the geology of Leadville Colorado and the surrounding area. The included atlas contains several maps and geologic cross-sections of Leadville and the surrounding area. I will be using this source to better understand the precise geographic location of mines and mining districts in relation to the city of Leadville. I will also use this source to provide added context to my project through vivid and informative descriptions of the mechanics of silver mining near Leadville and how that may have impacted migration to the city.

Graff, Marshall Conant. *A History of Leadville Colorado*. Madison, WI: University of

Wisconsin, 1920. <https://books.google.com/books?id=45E2AAAAMAAJ&pg=PA1&source=gbs_toc_r&cad=2#v=onepage&q&f=false>.

This piece chronicles the history of Leadville up to 1920. I will draw on this source’s rich descriptions of everyday life in Leadville, including commodity prices and the rapidity of arrivals in the city during the height of the mineral rushes, to contextualize my analysis of population numbers of the city provided in the 1870, 1880, and 1890 censuses.

Henderson, Charles W. *Mining in Colorado: A History of Discovery, Development, and*

*Production*. Washington D.C., Government Printing Office, 1926. <https://pubs.usgs.gov/publication/pp138>.

This USGS-produced history of mining in the State of Colorado includes mining histories for each of Colorado’s counties, as well as silver production records for each. I plan to use the histories and production records of Lake and Pitkin Counties to thoroughly understand and proportionately represent the silver production of Leadville and Aspen, respectively, in my maps for this project.

Rand McNally and Co. *Rand, McNally & Co.’s Colorado*. Scale ca. 1:1,500,000. “Library of

Congress.” 1879. Accessed April 2, 2024. <https://www.loc.gov/resource/g4310.rr001900/?r=-0.05,0.01,1.094,0.498,0>.

This map depicts the railroad network of the State of Colorado in 1879. I plan to georeference this map onto a basemap to represent Colorado’s railroad network and its lack of connections to Leadville and the area that would become Aspen. This map will serve as the first map in a series of georeferenced raster layers, including maps of Colorado’s railroads from 1881 and 1899, to represent the expansion of Colorado’s railroad into Leadville and Aspen during the Colorado Silver Boom and how those new rail connections influenced migration to these mountain mining meccas.

Rohlfing, D. P. *Map of the Aspen Mining Belt Pitkin CO. Colorado*. “Mines Repository.” 1880?-

1899?. Accessed April 2, 2024. <https://repository.mines.edu/handle/11124/16346>.

This map depicts the crowded and confusing set of mining claims that flooded Aspen and the surrounding area in the later years of the Colorado Silver Boom. I plan to use this map in one of two ways, depending on if I can accurately georeference it onto a basemap. If I am I accurately georeference this map, then I intend to use it as part of a raster layer showing the location of mining claims near Aspen and their proximity to the city itself. If I am unable to accurately georeference this map, I will use it as a supporting image for my interactive web map to present the same information to readers in a slightly different form.

Rohrbough, Malcolm J. *Aspen: The History of a Silver-Mining Town, 1879-1893*. New York:

Oxford University Press, 1986. <https://archive.org/details/aspenhistoryofsi0000rohr/page/n6/mode/1up>.

This book covers the history of Aspen during the Colorado Silver Boom from 1879-1893 when Aspen’s population exploded after the discovery of silver with a railroad connection following shortly thereafter. I plan to use this book to understand how railroad development impacted Aspen’s population and to better understand the history of mining districts “ON-007-08D Historic Metal Mining Districts of Colorado (Data) – v20201112” depicts in and around Aspen.

Smith, Duane A. *The Trail of Gold and Silver: Mining in Colorado, 1859-2009*. Boulder, CO:

University Press of Colorado, 2009. <https://search.ebscohost.com/login.aspx?direct=true&AuthType=shib&db=e000xna&AN=305343&site=ehost-live&custid=creight>.

This book is a survey of Colorado mining history from 1859 to 2009. I will be using the detailed, statewide information this book contains regarding the Colorado Silver Boom to provide historical background and statewide and/or national context for the economic and population explosions of Leadville and Aspen during the Colorado Silver Boom. While most of my other sources are quite narrow or specific in their focus, the broad purview of this book will provide me with a wider view of the geographic and social context Leadville and Aspen inhabited in the late 1800s.

Spurr, Josiah Edward. *Geology of the Aspen Mining District, Colorado with Atlas*. Washington,

D.C.: Government Printing Office, 1898. <https://archive.org/details/geologyofaspenmi00spurrich>.

This report and its accompanying atlas provide information similar to that found in *Geology and Mining Industry of Leadville Colorado with Atlas* but for Aspen and the surrounding area instead of Leadville and the surrounding area. As a result, I will be using this source’s precise details of the locations and characteristics of silver mines near Aspen to add details and descriptors to the mining districts near Aspen outlined in the shapefile from “ON-007-08D Historic Metal Mining Districts of Colorado (Data) – v20201112.” I will also use this source to continue to flesh out textual background information describing mining methods and mine accessibility in my interactive web map.

Thayer, H.L. *Thayer’s Map of the Leadville Mines California Mining District Lake County*

*Colorado.* Scale ca. 9,600. “David Rumsey.” 1880. Accessed April 2, 2024. <https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~237533~5511159:Leadville-Mines-California-Mining-D?qvq=q:leadville;lc:RUMSEY~8~1&mi=5&trs=8>.

Similar to *Map of the Aspen Mining Belt Pitkin CO. Colorado*, this map depicts a confusing and overlapping set of mining claims in the Colorado Rocky Mountains. However, this map depicts the mine claims near Leadville as opposed to Aspen. Like my plans for *Map of the Aspen Mining Belt Pitkin CO. Colorado*, I plan to either georeference this map onto a basemap, or, if that is not possible, I will include this map as a supplementary image to communicate to readers the proximity and relative location of mining claims near Leadville.

U.S. Census Bureau. *1870 Census: Volume 1. The Statistics of the Population of the United*

*States*. Supervised by Francis A. Walker. Washington D.C.: Government Printing Office, 1872. <https://www.census.gov/library/publications/1872/dec/1870a.html>.

This census records the population of Lake County and other counties in the Rocky Mountains before the Colorado Silver Boom caused mining boom towns to pop up and explode in population. The key element of this census that I intend to use for my project is the miniscule population of Lake County in 1870 and the absence of both Leadville and Aspen on this census record as few Euro-Americans were living in the areas that would become these cities. This indicates a lack of economic opportunities or incentives for Euro-Americans in and around the areas that would become Leadville and Aspen. This reinforces how pivotal the discovery of silver and the accompanying economic boom were for the establishment and growth of these towns.

U.S. Census Bureau. *1880 Census: Volume 1. Statistics of the Population of the United*

*States*. Supervised by Francis A. Walker and Chas. W. Seaton. Washington D.C.: Government Printing Office, 1883. <https://www.census.gov/library/publications/1872/dec/1870a.html>.

This census records the population of Leadville in 1880, but not the population of the area that would become Aspen as Aspen had yet to be incorporated or substantially settled by Euro-Americans. I plan to proportionately symbolize the population of Leadville as recorded in this census on my interactive web map to represent the city’s population growth in Leadville between 1880 and 1890. Once again, the absence of Aspen in this census further reinforces the importance of the discovery of nearby silver ore deposits for the town’s establishment and population growth. I plan to textually highlight this fact in my interactive web map.

U.S. Census Bureau. *Eleventh Census - Volume 1. (Part I & Part II) Report on Population of the*

*United States.* Supervised by Robert P. Porter and Carrol D. Wright. Washington D.C.: Government Printing Office, 1895. <https://www.census.gov/library/publications/1895/dec/volume-1.html>.

This census records the populations of both Aspen and Leadville in 1890. I will proportionally symbolize the population of both these cities on my interactive web map for easy comparison of the population growth in these areas between 1870 and 1890. I will highlight the population growth of Leadville particularly between 1880 and 1890, as well as Aspen’s growth from an unincorporated area to a city recorded in a national census.

Whitehorn, W. Clark. *Aspen and the Railroads*. Aspen, CO: Aspen Historical Society, 1993.

<https://archiveaspen.org/fellowship-papers/>.

This source describes the City of Aspen’s historical relationship with railroads. This piece particularly highlights the explosive population growth the arrival of the railroad stimulated in Aspen. I plan to use this account of the railroad’s relationship to population growth in Aspen when it was economically dependent on silver mining to explore the relationship and/or correlation between railroad connections, population growth, and silver mine proximity in the city of Aspen. This piece’s accounts of Aspen and its population before and after the arrival of the railroad will be critical to my analysis.