

MAPPING THREE DIMENSIONS: THE COMSTOCK CLAIMS

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The mapping of the mining claims for the silver in the Comstock lode follows as complex a course as the very veins of silver themselves, and, like the remaining silver in the ground, the story of the claims and their mapping continues still today. This article can only begin to touch upon this intriguing area of mapping, but will hopefully stir interest in further exploration.

The Comstock Lode was formed through a fault fissure, and extended for four miles, reaching "unknown depths." Ages passed before the lode reached "completion" through "violent dynamic convulsions" and a "great fault fissure." (Smith, G.H., p. 71) As far as we know, the great treasures in silver and some gold lay undisturbed beneath the ground until the mid-19th century, when gold rush miners from California began to search for gold in the areas around Virginia City and found flakes and some nuggets, which encouraged further exploration and the eventual discovery of the Comstock lode. The lode was given its name after Henry Comstock, who, with his partner Manny Penrod, bought other miners' claims to the area while thinking it was rich in gold, rather than silver.

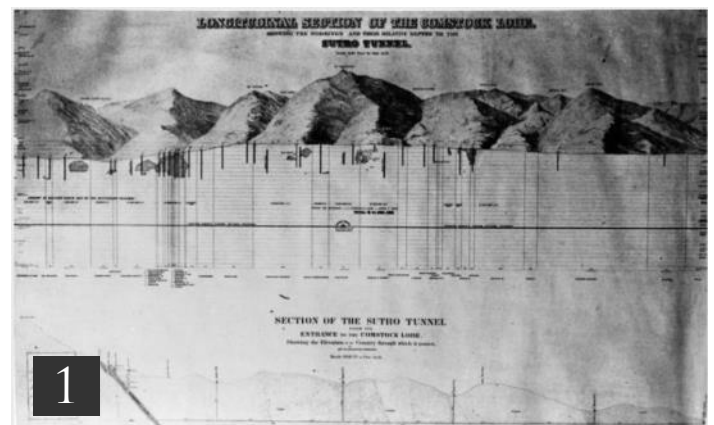
In researching mining claims, I was very fortunate to have been referred to David Davis, a Geologic Specialist with the Nevada Bureau of Mines and Geology. David says he was always very interested in both history and geology, and collected rocks from early childhood in his native Juliustown, New Jersey, and in Vermont, where the family vacationed in the summer. He attended VA Tech and graduated with a BS in Geology before moving to Reno, NV to attend the well-known and highly respected Mackay School of Mines at University of Nevada, Reno, graduating with an MS. He has worked for the Nevada Bureau of Mines for 30 years, beginning in the geology lab making thin slices of rock for study, and moving into IT where he continues today, after 3 years. He loves geology, maps, rock identification, and history. He is an information specialist and welcomes inquiries from anyone interested in exploring the Comstock and its claims further.

As we begin to consider the history of claims mapping, David

shared, it is first essential to understand two common terms: lode claims and placer claims. Lode claims relate directly to a specific vein of silver deposit, to the actual mineral found in the rock itself, and follow the orientation of the vein. Placer claims are generally rectangles of land, and refer to all of the mineral deposits located within the boundaries of the placer, including the metals found in the dirt and gravel eroded from the rock. (David, D. personal interview)

Silver mining began, as we know, in Virginia City, with the gold rush in 1849. The 49ers first found the rich silver veins of the Comstock Lode buried under the bluish mud which was clogging up their sluice boxes as they searched for gold. When the "bluish stuff" was found to be silver, they recognized the value of their find, thus making the ways in which claims to a specific spot could be secured an all-important issue.

At the time of these discoveries, none of the land in the area had been surveyed or mapped. The location of Comstock claims were crudely and ineffectively documented at first. "Records", filled with easures and changes, were kept in a book on a shelf behind the bar of a saloon. Claims "usually consisted of a line or two claiming so many feet north or south from a stake or from another claim, with nothing else to identify the location, which made it easy at a later period to "float" a claim over more desirable ground." (Smith, G.H., p. 6) Litigation regarding the location of stakes, and the ways in which claims were recorded abounded.

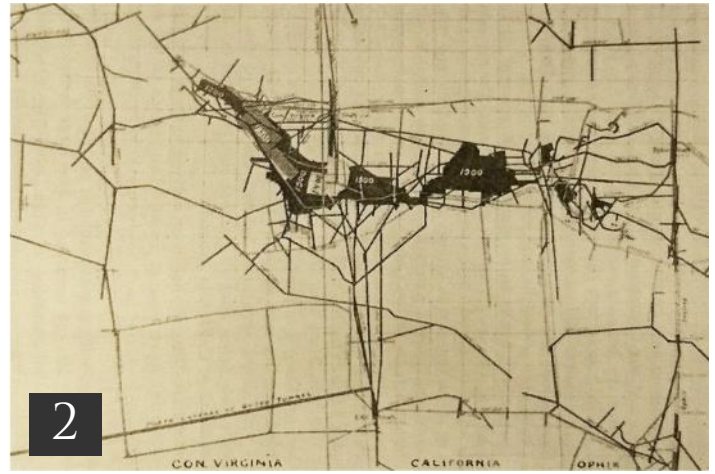


At the time of these early claims, silver and gold was the only money in circulation in the West (Ibid, p. 31). "Rules" for placer claims stipulated 50 feet "for each man", but these were not strictly adhered to by miners, who set their stakes to mark the boundaries of their claims as they wished. Some were never recorded. (Smith, G.H., p. 9) In 1859, John W. Mackay, who later became the Comstock's wealthiest individual claims holder, was among the first to discover and claim the "Ophir Diggings". (Ibid, p. 14-15)

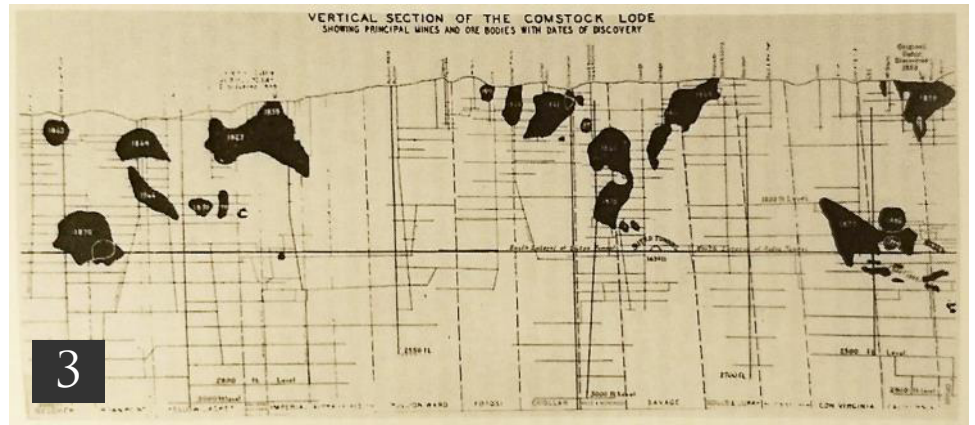
Miners could also form a group, and claim adjoining areas, thus creating much larger joint claims. Mining companies often used the names of the original claim holders and formed stock companies, such as Gould & Curry, Hale & Norcross, Best & Belcher, Savage, Chollar, Overman, Belcher, Sides, and White and Murphy (Ibid, p. 11), as well as Ophir, Potosi, and Yellowjacket. Shares in the companies were sold "by the foot", a number which was unrelated to the number of shares each company held. (Ibid, p. 32)

There were, at first, no Federal laws which limited miners from locating mining claims on public lands. Miners were, in reality, trespassers onto these lands, but no actions were taken by the Federal government to address this. Contrary to the laws in other countries, mining laws in the US allow a miner's claims to follow a vein, even when that vein dips underneath another miner's claims (Ibid, p. 64) Rules were set which allowed claims to follow a vein for 200 feet in length, including "all of its dips, spurs, and angles." The width of a claim was not prescribed, and the claims filer could claim the entire width of the vein, which was up to 1,000 feet in some areas. (Ibid, p. 64-5)

The first official regulations regarding staking and mapping claims in the area were drawn up in 1859, and provided some consistent rules and procedures. Reviewed in 1866, these applied only to lode claims, but were later amended to address placer claims as well. An 1866 map illustrates depths of shafts for the proposed Sutro Tunnel. (MAP 1) Another example, the plat of the "stopes" (underground spaces created by the removal of minerals) of Consolidated Virginia and California's Bonanza mine, drawn in the 1870's, looks downward from a horizontal plane from the 1200 Ft. to the 2200 Ft. levels, with each square representing 100 feet vertically, and with some stopes extending vertically upward from the main areas of the mine. (Smith, G.H., p. 166) (MAP



Horizontal Plat of Bonanza Stopes



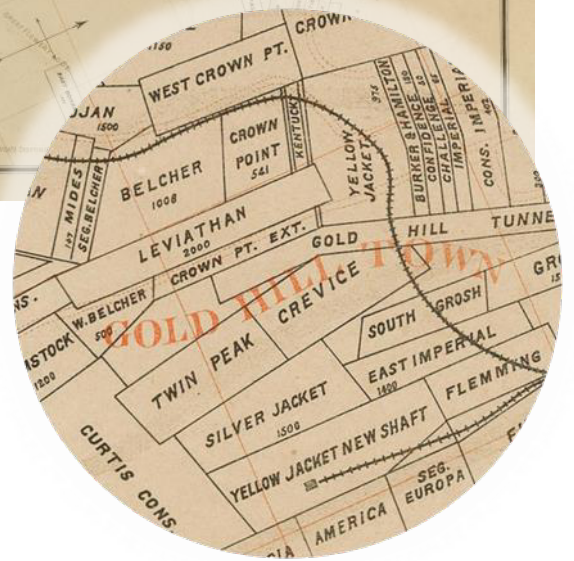
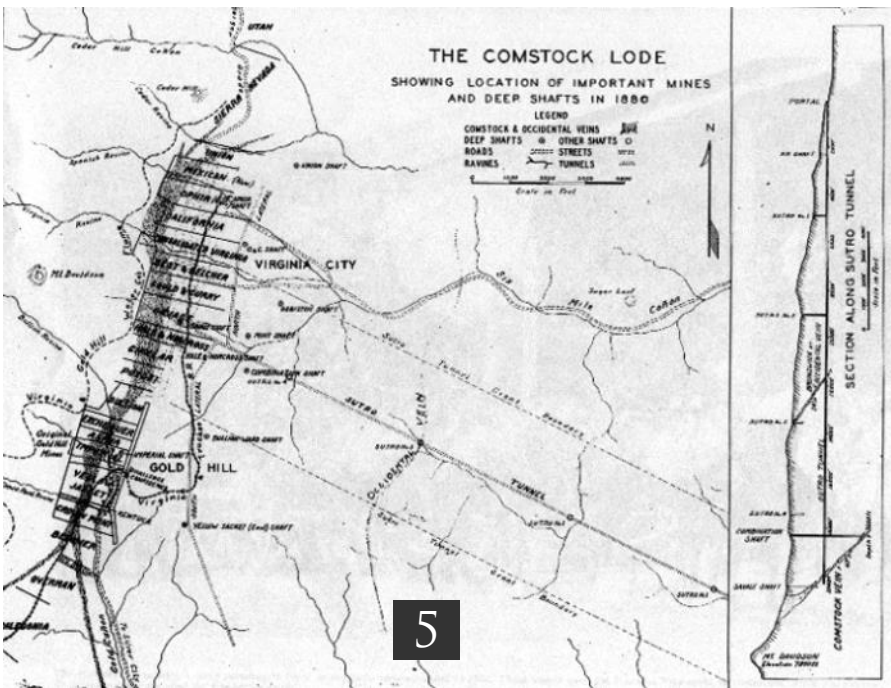
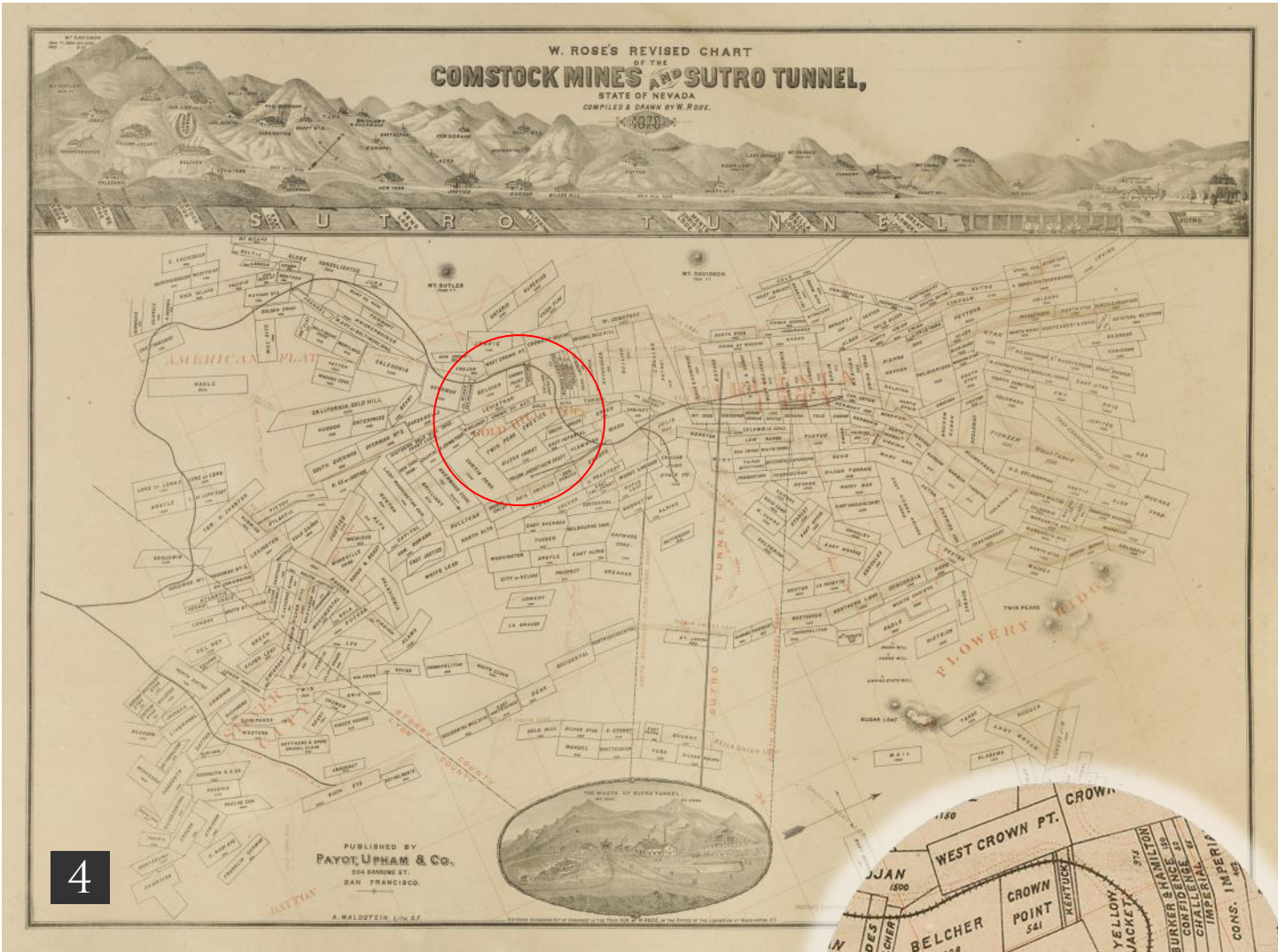
Vertical Section of the Comstock Lode

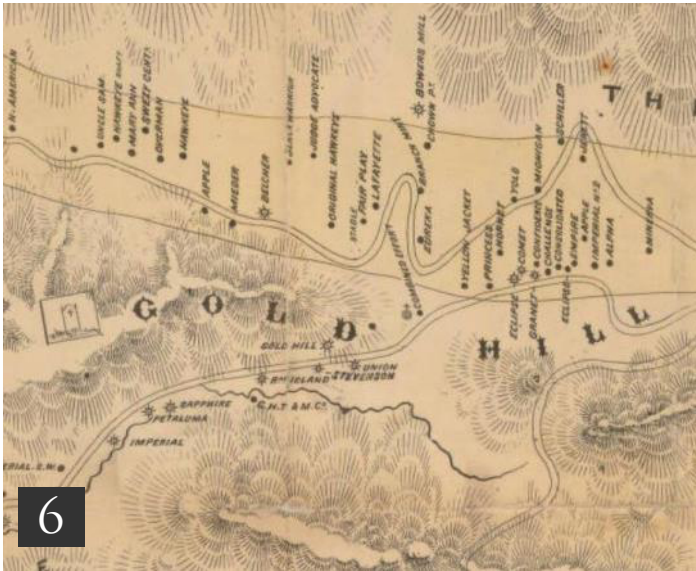
2). Another, a map of a section of the Comstock lode, drawn vertically, indicates the shape of the deposits and mines as well as the dates of discovery, thus setting the discoverer's claims to the mine by date. (Ibid, p. 276) (MAP 3)

Lode claims could be mapped in several ways: the original map of the proposed Sutro Tunnels (above) was revised in 1878 by W. Rose ([http://contentdm/library.unr.edu/cdm/singleitem/collection/hmaps/id/11/rec/54](http://contentdm.library.unr.edu/cdm/singleitem/collection/hmaps/id/11/rec/54)) (MAP 4) Two years later, in 1880, a surface map of the Comstock Lode indicates the location of mine shafts, as well as veins, streets, ravines, and tunnels (Ibid, p. 77) (MAP 5)

Nevada acquired statehood in 1864. An 1865 Higginson and Goldsworthy map illustrates the early gold and silver mining districts for the newly designated state. (<http://contentde.library.unr.edu/cdm/singleitem/collection/hmaps/id/4764.rec/12>) (MAP 6)

In 1872, the Nevada Mining Law set policies for staking both lode and placer claims. For placer claims, individual, officially designated "Mining Districts" had the power to set up their own rules and regulations for staking claims, and, in effect,

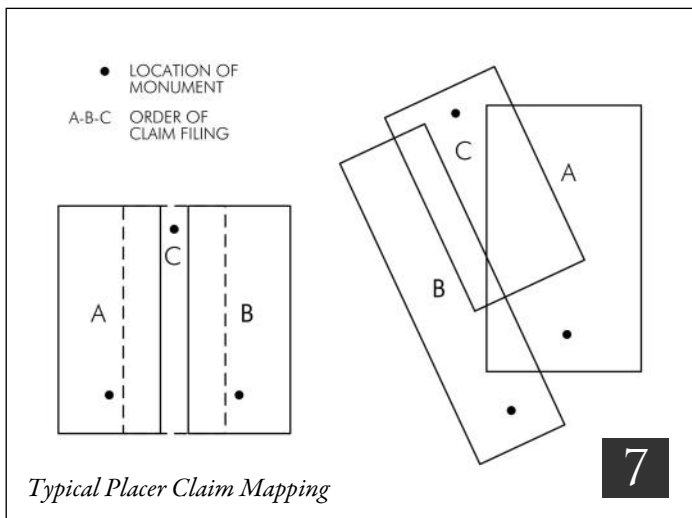




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recorded. Records were kept in writing – there was no mapping at first to protect claims, or to provide accurate measurements. The Comstock Lode’s Mining Districts in the area of Virginia City were named Ophir and Flower.

What happened, as it often did, when miners’ claims overlapped? Each claim had a "discovery monument" somewhere on its claim. The earlier claim date had precedence. Odd shapes could result, as David Davis’ diagram shows. (MAP 7) The claims monument has to be located in an unclaimed area. If it is located in an area where an earlier claim was already filed, the later miner’s claim was completely forfeited. David’s diagram illustrates the ways in which claims, originally rectangles or squares, could become odd shaped when claim filing dates were applied. David also illustrates how two rectangular claims, laid side by side with six inches between them affect a later, superimposed rectangular claim. Because earlier dates had precedence, the later claim could be reduced to a simple, six-inch strip only – still giving its owner a claim to the deposits found within



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became the very first civil governments in these areas. Each "Mining District" had a prominent monument somewhere near its center, which served as a marker from which all claims could be drawn.

- The placer claim process went something like this:
- Find something
 - Create an area of claim around it
 - Set a monument within the area
 - Measure the claim’s distance from other monuments.

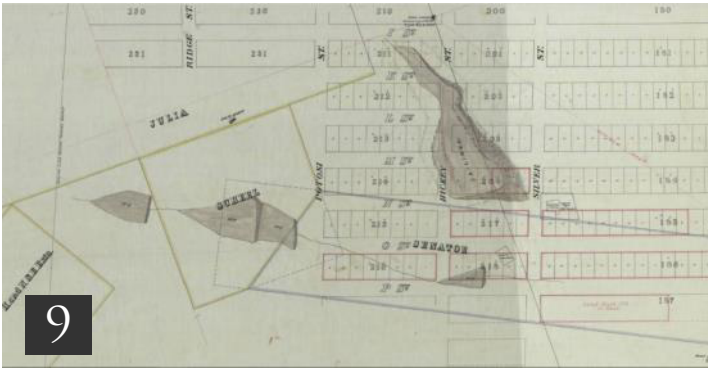
Early placer claims were, literally, measured in footsteps. The miner would stake a claim, build his own marker, or "monument" as they were called, measuring it in footsteps from a neighboring marker or from the central district marker. He would measure the number of footsteps to the ends of his claim. Then, he would take these measurements to the Mining District Recorder’s office, where they would be



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those six inches! (Davis, D., personal interview)

The Bureau of Land Management website states that the first "official" survey of the lands around Virginia City’s Comstock Lode was done in 1860. These records and surveys were held by the Virginia City Recorder. However, in 1875, there was a huge fire, and the city burned down. Some believe that the fire took with it all the books and records and surveys that had been done until that point, but there is no hard evidence of what actually occurred. Records were begun once again, and continued to be kept, first by the District Recorder and then, when counties were established as units of local government, by the County Recorder. Still today, no one is certain of what happened to the old records and to the



surveys of claims and boundaries. What is known is simply that, by the 1930's, all were gone. We do have a few maps of these early surveys and districts, including Davis' 1905 map, Hugo Hochholzer's 1865 topo map, and an 1877 map of Virginia City, with topo lines and mines.

MAP 8 — T.D. Parkinson's beautifully detailed 1875 map of the Comstock Lode and the Washoe Mining Claims illustrates the way in which lode claims followed the vein of the lode.

(<http://contentdm.library.unr.edu/cdm/singleitem/collection/hmaps/id/1696/rec/47>)

MAP 9 — An 1890 map of Southeast Virginia City illustrates both street layout and mineral claims.

(<http://contentdm.library.unr.edu/cdm/singleitem/collection/hmaps/id/4655/rec/1>)

MAP 10 — And an early 20th century map by Moran in 1923, show mining claims in fuller detail.

(<http://contentdm.library.unr.edu/cdm/singleitem/collection/hmaps/id/1695/rec/9>)

The legacy of the Comstock lode is an important one. Virginia City, Gold Hill, Silver City – these were the sites of the first silver mining camps in the United States, and the Comstock Lode was the first mined silver deposit in the country. It brought business to California, lifted it out of a depression, and grew the city of San Francisco, which, prior to the silver boom of the Comstock, was a town of 52,000. "Nearly all the profits from the Comstock were invested in San Francisco real estate and in the erection of buildings. California was the source of all supplies, from fruit to mining machinery, and every industry thrived" (Smith, G.H., p. 289).

Interested in staking a claim? More than 80% of Nevada is Federal land, and claims can still be filed – on Federal land – for mineral rights. The government retains ownership, but the claim holder can mine the land and retain the mineral

rights. There are currently two ways to file claims: patented and unpatented filing. With unpatented claims, the government retains ownership of the land, while the individual claim holder has the mineral rights. Patented claims are a lengthier and more complex procedure. To have a clear, "patented" deed, the miner must have had the land surveyed, bring his official plat of the land to the appropriate government office, file official papers, pay fees, and go through a lengthy process before the deed can be granted. Current filers must be aware of federal laws, State of Nevada laws, and BLM laws for filing both with BLM and with the appropriate County Recorder. (Davis, D., personal interview)

References:

Davis, David A., Geologic Information Specialist, NV Bureau of Mines and Geology, personal interview

Smith, G.H. (1998) The History of the Comstock Lode. Reno: Nevada Bureau of Mines and Geology Special Publication.

Websites:

Main website: nbmg.unr.edu.

Publication Sp6 Special pubs 6 mining claim procedures for Nevada prospectors and miners (pdf)

Underground maps #120544 was 56x17 feet. Size is on the bottom left corner.

Huge collection (thousands) of maps – look up claims maps for VA City.

