

THE HERMIT MINE

Introduction

Location:

The Hermit Mine is located in the central eastern part of San Mateo County, State of California, the Portola Shaft being approximately 3.3 miles S54°W of the Mining Building at Stanford University. This district is a part of what was formerly called the Canada Del Corte De Madera and is within the Santa Cruz Quadrangle. Searsville Lake lies about one mile to the west and a branch of the Corte Madera runs near its southern boundary. The area mapped is partly on University property, but the southeastern part is on the Ormondale Stock Farm, owned by W. O. B. Mac Donough. Access to the area is gained by a dirt road which runs from the Portola Highway through the stock farm and thence to the mine.

Climate:

The climate here is that which is so typical of this portion of California. Summers are warm and dry, there rarely being any rain from the first of May until after the first of October. The maximum temperature is about 100°F in the summer months, and it very rarely gets cold enough in the winter to freeze more than a thin sheet of ice. Snow, however, falls every year on the hills just across the Portola Valley. The average rainfall is 20 inches per year. Rains are of the steady type, so most of the water goes into the ground.

History

In writing up the history of this mine it is thought best to digress a bit from the usual and say something of the condition of the community at the time just preceeding the discovery of the mine. Considerable attention will also be paid to the life of the "Old Hermit" after whom the mine is named because of his long association with it.

General History:

In the middle part of the last century and for many years afterwards the southern part of the Portola Valley was known as the Canada Del Corte Madera, and the country back of Woodside was called Canada De Raymundo, meaning "Valley of the Earth". As the fertile lands of these little valleys were used mainly for grazing purposes and grain farming a much different view greeted the traveler from that of to-day. The eastern slope of the ridge beyond Portola was heavily covered with Redwoods, thereby furnishing timber for the lumber industry, in which most of the people of the community were employed. Cutting of these trees has caused a very noticeable drying up of the springs which formerly fed the Corte Madera Creek.

Several saw mills were located on the eastern side of La Honda Ridge. After sawing the logs into boards the lumber was loaded on wagons and hauled to Redwood City by mules and ox teams. Schooners and river boats waited there at the Embarcadero where the lumber was taken on

board and transported to San Francisco or Sacramento.

This also served as a shipping port for hides and grain.

The haul from the mills to Redwood was a long one and the village of Searsville sprang up as a midway station. This was named after John L. Sears who came to California from New York in 1849. After spending two or three years in the gold diggings he came to this neighborhood and built a tavern where Searsville Lake now stands. Once started, the little town grew rapidly. It had two stores, two blacksmith shops, a schoolhouse, a church, a few private homes, and several gambling halls and saloons.

This little community was the scene of considerable activity on Sundays for many of the teamsters would stop over there on the trip to and from the mills and join in the amusements. Ox-pulling and horse racing were enjoyed by the entire population, but for the Spaniards no holiday was complete without the usual cock fights. Gambling and drinking were indulged in quite freely, for such was the spirit of the times.

It is interesting to note that mining also played a part in the early history of this neighborhood. The first mining venture of which we have any information was on Black Mountain, then called Coal Mine Ridge. A narrow seam of coal of poor quality was found and although a company formed and stocks sold, the property was never developed. Shortly thereafter, and at about the same time as

the great Comstock boom, there was considerable excitement over a reported discovery of gold and silver in San Gregorio Canyon. It is said that argentiferous lead and silver sulfids were associated with quartz veins. The San Gregorio Gold and Silver Mining Co. was organized by Messrs. August Eikenkrotter and John Crowley to prospect this canyon. It was necessary to transport all supplies on pack mules and most of the money was spent before anything worth while was uncovered. Gold was found in the streams on Black Mountain and prospecting continued there for some time. A few prospectors have since panned there with little success.

Discovery of silver on Searsville Ridge took place at a somewhat later date than the above mentioned operations. The first authentic record that we have is in 1875 when Mr. John Murray, a resident of Searsville, who owned land on the west edge of the ridge, sold the mining rights on his property to a group of six men from Redwood City for \$3000. He was also to receive a quarter share in all mines discovered, plus 25 per cent of the net products (County Records, Dec. 22, 1875). A tunnel was driven into the hill a short distance south of the present dam. Small stringers and pockets of ore were encountered, but as they were too erratic to pay the project was abandoned. According to the best information available the highest assays obtained were about 35 ounces of silver per ton. This tunnel has not been located and is probably below the present water level of

the lake. but they were mistaken and never encountered

Discovery and Sinking of the Portola Shaft:

At about the same time that the tunnel was being driven near Searsville, Domenico Grosso discovered silver on the Dennis Martin farm further southeast along the same ridge. It is said that he covered up the place with brush and then set fire to it in order to conceal the find. He then went to his employer, Nicholas Larco, who owned what is now the Ormondale Stock Farm, and told of the discovery. Domenico persuaded Larco to purchase the mining rights of Dennis Martin. There is no record of this transaction in the county records, but subsequent events indicate that some such agreement was entered into.

Larco hired cheap Italian laborers and proceeded to put down two vertical shafts, one to a depth of approximately 200 feet and the other about 75 feet. Mr. E. Staples, an old Comstock miner, acted as blacksmith and mine foreman. It seems doubtful if any ore was ever encountered in the shallow shaft, but the discovery vein was followed down in the deeper one.

Larco's mine created considerable excitement among the local population and some of the more optimistic persons believed that mining would replace the timbering, grain farming, and cattle raising industries, which were beginning to die out. Men at the mine expected the vein to widen out

with depth, but they were mistaken and merely encountered more water. The mine foreman had difficulty getting men to work in this wet shaft, and an accident resulting in the death of one of the miners did not help matters. The amount of ore that Larco shipped is not definitely known, but is estimated as being only three or four tons. Gold and silver content must have been low.

In the meantime Larco had planted about forty acres of mulberry trees in the flats west of the ranch houses and made an unsuccessful attempt to establish the silk worm industry. This increased his financial difficulties and it became evident that work on the mine would have to be suspended. Before doing so a mining engineer named Lansing was brought from Nevada to examine the property. He reported the mine as being worthless, stating that the ore body had been shot to pieces by volcanic activity. Work on the mine stopped and it soon filled with water. Larco, however, still believed that plenty of ore would be found if they went deep enough and after a time procured more capital to resume operations. Staples rigged up a horse whim and spent several weeks bailing the water out, but this proved more costly than had been anticipated and sinking was never resumed.

Very little is known as to just how the men carried on work at the shaft but it is probable that hand drilling

was employed throughout and the rock drawn out in sawed off iron bound barrels. The loaded barrels were hoisted by means of a hand windlass. As the rock came to the surface the miners loaded it into a small mine car and ran it out onto the dump. The exact date of this work is not ascertainable, but according to the best information available was about 1875 to 1877, or possibly a little earlier.

Domenico Grosso:

Domenico Grosso, known to many as the Old Hermit, came to San Francisco from Genoa, Italy, in about 1869. He first found employment under Hippolyte Belloc, who at that time was senior member to the Banking House of Belloc & Company. Grosso, however, soon came to this neighborhood and worked for Nicholas Larco, first as cook and later as ranch foreman. It was while acting in this capacity that he discovered silver on the Dennis Martin farm.

When Larco became insolvent Hippolyte Belloc took over the ranch, and evidently the mining rights also, for in 1878 he gave Grosso a permit to prospect and mine on the Dennis Martin ranch (County records, dated Dec. 28, 1878). In the meantime Grosso had been acting as ranch foreman and had not actually worked in the mine. He had a great deal of faith in it, however, and fortified with the permit from Belloc went onto the property to live. Having chosen this solitary life, he tore down the bunkhouses and used the

material to build a cabin in one of the nearby canyons. A



Domenico Grosso and his Ornamented Spring

small barn and shop were also put up. Grape vines, fruit trees, gardens, and roses were planted, but the real feature of the place was the ornamented spring. Large pieces

of serpentine were arranged so that the water would flow over them into an artificial basin which contained trout. These rocks and the basin were highly decorated with various species of sea shells. Another interesting spot was the



The Old Hermit's Cabin

terraced hillside. He called this the Palace Hotel.

Domenico could not work the flooded shaft, but he did do a great deal of work throughout the hills in search of more ore. More than twenty surface pits have been located, most of which may reasonably be accredited

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to him. Small quantities of ore are found in about half of these, but the veins are narrow and run low in silver. It is said that he shipped only one ton of ore, which ran \$1. It is also reported by a well-known engineer that the old fellow had several sacks of exceptionally rich ore, but this seems doubtful. It is known that when he found a bit of highgrade this was kept in earthen jars to show his friends, and as an explanation of this report it is suggested that Domenico pointed out the sacks of low grade ore and then gave the engineer a sample of the highgrade to assay.

Domenico always seemed glad to have visitors and when a special friend came one of his first acts was to hoist the Italian and American flags; this was a mark of courtesy and the flags would be taken down when the visitor left. Most of his entertaining was done at the "Palace Hotel" and after chatting a while he would invariably bring out some wine and small bread cakes. Very little is known of his early life, but he did tell some of the most intimate friends that he had mined before coming to California, and had served as a soldier under the great Italian patriot, Garibaldi. At no time did he care for music, and after listening a short time would mutter something about Julia and ask to have it stopped. Julia was evidently an old sweetheart who had died shortly before he left Italy.

For a considerable time after Domenico came on the
of those who knew his heart he must have been eighty-five
or ninety years old.

property Mrs. Belloc sent him money and provisions. There is a varied opinion as to just why this was done, some believing it to be in the nature of a grubstake while others claim it was merely partial compensation for money lost in one of Belloc's banks. Eventually this source of assistance was shut off and Domenico was forced to use up the money which he had saved while working for Larco. Times got hard and during the last few years the proud old fellow was dependent upon friends around Portola and Woodside. At one time there was a report out to the effect that he had been held up and robbed, but this is believed to have been a ruse started by him in an effort to excite sympathy and gain additional help from friends. The monotonous life to which he had subjected himself began to tell on the mind. He gave up hope of ever selling the mine and got the idea that people were trying to cheat him out of it. There was some grounds for this belief, for Senator Stanford had bought the land and after his death the University authorities made an unsuccessful attempt to eject Grosso.

In the spring of 1915 Domenico was taken sick with the dropsy and suffered a partial paralysis. The cause of his illness was thought to be due to starvation and exposure. Friends cared for him at the cabin for several weeks but he was finally moved to the San Mateo County Hospital, where he died on April 18, 1915. In the opinion of those who knew him best he must have been eighty-five or ninety years old.

Geology

General Geology:

Before attempting to give a description of the geology of the area mapped it should be mentioned that many of the contacts are so covered up by soil as to prevent their accurate location. Dense growths of underbrush and chaparral have also added to this difficulty, especially on the southern slopes and in the ravines.

The rocks recognized within the Hermit Mine area are divided into three groups; sedimentary, igneous, and metamorphic. The sedimentary rocks are of Mesozoic age, with the exception of a small patch of recent sands occurring on the flats in the north central part of the area. These rocks are sandstones, cherts, and limestone. The igneous group is well represented by diabase and serpentine.

Glaucophane schist is the only truly metamorphic rock found. These are all discussed below under the different ages in which they occur.

Topography:

In dealing with the topography, attention is not confined to the area mapped, but rather to the entire range known as Searsville Ridge, and particularly the northern part. This ridge, which is about one and a half miles wide, extends in a southeasterly direction to the Los Trances Creek, three and a fourth miles distant. It is bounded on the north by the San Francisquito Creek,

while on the southwest the lower hills merge off into the Portola Valley, the Corte Madera Creek being considered as the boundary.



*Looking Northwest From Station J
Portola Shaft Lump in Foreground*

The topography of this country is characterized by round topped, rolling hills which have been dissected by broad, gently sloping canyons. The highest of these hills occur in the southeastern portion where one of them rises to approximately 800 feet above sea level. On the area mapped the highest point is at Station J. This is 684 feet above sea level. The average elevation of the hills in this section is slightly over 600 feet.

It is the writer's opinion that this ridge was at

one time an elevated plane surface, especially the northwestern part. Many of the hills here are of about the same height and there is one broad flat place on the area mapped which is evidently a remnant of that old surface. It is covered partially with fine sands which were deposited by one of the old streams.

Although the hills are generally well rounded and present an even surface this is not always the case. At the northernmost tip of the ridge and near the lake there is a number of steep, precipitous bluffs known as Sandstone Cliffs. These stand out in sharp contrast to the other topographic features, and are conspicuous for the large caves which the wind has carved out therein. There are also a few rugged outcrops of altered diabase, occurring near the creek and to the southwest of Portola Shaft.

As indicated above, this region is drained by the San Francisquito and Los Trancos Creeks and the Corte Madera. The only stream of any consequence, however, that cuts into this ridge is a branch of the Corte Madera. This is just below the area mapped. This creek drains about one square mile. None of these tributary streams have water running the year around, although there are several small springs which flow throughout the summer.

In view of the fact that the streams carry such small amounts of water and since most of the steeper slopes are covered with a heavy growth of underbrush it is natural

to expect only a moderate rate of erosion. This is especially true on top of the ridge where the canyons have a gentle slope. Near the edge where the ravines are steeper



*Looking North up Canyon East of Portola Shaft
Note Open Rolling Hills With Scattered Oaks*

the streams have a much greater transporting power and are cutting in quite rapidly.

Vegetation:

Vegetation occurring on the Searsville Ridge is very similar to that found on most of the lower hills lying on the east flank of the Santa Cruz Mts. As the temperature and soil conditions vary considerable it is only natural that there should be a corresponding change in the trees and shrubs. This is especially noticeable in comparing the vegetation of the ravines and north slopes with that of the

southern slopes where the climate is warmer and the soil contains more moisture. On top of the ridge there are broad open spaces that have no vegetation other than the wild grasses and small flowering plants. In the ravines and steeper slopes there is nearly always a growth of trees or underbrush. All the formations are favorable to plant life except serpentine, and as that has only a very thin covering of soil nothing is found there but the smaller flowers and a little grass.

In listing the plants and shrubs of this ridge only the most characteristic ones are given, and they are divided into the groups given below:

1. Ravines and north slopes:- A dense growth is usually present here, especially in the bottoms of the ravines where moisture is most abundant. Poison oak and shrubs are especially common in the ravines, while on the slopes trees are more abundant. Redwoods and douglas fir are found only on the northern slope near the San Francisco Creek. Following is a number of the most characteristic shrubs and trees:

<i>Pseudotsuga mucronat</i> . . .	Douglas Fir
<i>Sequoia sempervirens</i> . . .	Redwood
<i>Umbellaria californica</i> . . .	Bay Tree
<i>Ribes glutinosum</i>	Flowering Currant
<i>Aesculus californica</i>	Buckeye
<i>Rubus parviflorus</i>	Thimble Berry
<i>Dirca occidentalis</i>	Leatherwood
<i>Arbutus menziesii</i>	Madrone
<i>Heteromels arbutifolia</i> . . .	Christmas Berry
<i>Rhus diversiloba</i>	Poison Oak

II. Rolling hills and open oak groves:- These occur for the most part on the top of the ridge where there is plenty of soil and sunshine. Underbrush is not dense. (See picture on page 15). The trees and shrubs listed below are found on both the Chico and Franciscan formations, but principally on the former. The roble oak is probably the most common and conspicuous of this group.

<i>Quercus lobata</i>	Roble Oak
<i>Quercus douglasii</i>	Blue Oak
<i>Grossularia californica</i>	California Gooseberry
<i>Rhamnus californica</i>	Coffee Berry
<i>Baccharis pilularis</i>	Baccharis

III. Chaparral:- This is a term used to designate the dense thickets of thorny underbrush so common in the southwestern United States. In some places on Searsville Ridge this brush is almost impassible, and is a great hindrance to detailed topographic and geologic work. It occurs on the warm southern slopes and on top of the ridge, and is almost entirely confined to the Franciscan formation. (See picture on page 13). Following is a list of the trees and shrubs which are most common in this group:

<i>Quercus dumosa</i>	Scrub Oak
<i>Quercus durata</i>	Leather Oak
<i>Quercus wislizenii</i>	Sierra Live Oak
<i>Adenostoma fasciculatum</i>	Chamise
<i>Cercocarpus betulaeifolius</i>	Mountain Mahogany
<i>Xylothornia montana</i>	Chaparral Pea
<i>Ceanothus cuneatus</i>	White Lilac
<i>Garrya elliptica</i>	Silk-tassel Tree
<i>Arctostaphylos tomentosa</i>	Manzanita

Stratigraphy:

Jurassic Rocks (?):- Most of the rocks within this area are of the Franciscan Formation, which has long been supposed by geologists to be of Jurassic age. The rocks as a whole have been strongly folded and metamorphosed, and almost no fossils that could be identified have been found in it. This scarcity of fossils presents considerable uncertainty itself, but still other factors enter into the determination which are quite contradictory.

The Knoxville formation, which carries lower Cretaceous fossils, lies unconformably upon the Franciscan thereby indicating that the latter is Jurassic or older. Mr. A. C. Lawson points out, however, that the Franciscan is nowhere intruded in the Coast Ranges by the granite rocks, which many believe to be of the same age as those in the Sierra Nevadas. It is generally accepted that the Sierra Nevada batholiths were intruded at the end of the Jurassic, and if we are to believe that the granitic intrusions of the Coast Range are of the same age, then we must place the Franciscan in the post-Jurassic. That would make the post-Jurassic period much longer than has been supposed. The age of these intrusions in the Coast Range has not been definitely proved and if we are to assume them as being older than those of the Sierra Nevadas, then the Franciscan is Jurassic or older.

opaque substance that is believed to be highly altered

biotite. It is this material that gives the rock its dark color. In one small outcrop the rock exhibits a semi-schistose structure. It has been subjected to dynamic forces, thereby giving the rock this appearance.

Franciscan Cherts: Cherts occur throughout the Franciscan formation



Massive Chert Outcrop in North Part of Area

and are well represented here. They are found along the south side of the area in connection with the sandstone, where they form small lenses or patches, and especially in the northern part where they occupy a strip between the serpentine and the intruded diabase. For the most part they are massive, but in the western part of the area

there are outcrops that show distinct bedding planes. Where the cherts occur in layers, which are often less than one inch in thickness, they are separated by a thin sheet of shale. This shale varies in thickness from about one fourth inch to a mere film. The banded cherts have been badly contorted and twisted so that no clue can be obtained as to the structure of these rocks as a whole, and during this deformation they were fractured and broken into small pieces. Fracturing has permitted the development of innumerable tiny veinlets which are filled with fine crystalline quartz. These veinlets are perpendicular to the banding of the chert and do not pass from one layer to the other on account of the soft, friable shale between.

The cherts here are chiefly of a dull reddish color, but in the strip next to the serpentine dike and in the southwest corner of the area there is some which varies from white to gray. When viewed under the microscope the reddish variety shows innumerable circular and conical shaped spots which are the remains of minute organisms. None of these particular fossils have been identified by the writer, but many authorities on California geology have recognized them as being the remains of Radiolarians. Examination with the polarizing microscope shows that they have been completely replaced by quartz. The ground mass is dense, iron stained, amorphous silica, but in places