

El Dorado County Stone Resources circa 1867-1868

Excerpts from

Mineral Resources of the States and Territories West of the Rocky Mountains

By J. Ross Browne

Report to the Committee on Mines and Mining, House of Representatives
During the Second Session of the Fortieth Congress, 1867-1868

This transcription, which begins on the next page, is presented on the
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<http://quarriesandbeyond.org/states/ca/california.html>

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Section VII. El Dorado County (circa 1867)

“El Dorado county lies between the Cosumnes and the Middle fork of the American river, and extends from the eastern boundary of the State to near the Sacramento plain. It was in this county that Marshall made his discovery of the gold on the 19th January, 1848; and El Dorado was previous to 1853 called the Empire county, because it was for a time the most populous in the State, but it is now surpassed by many others.

“In this county we observe various features not found in Mariposa, Tuolumne, Calaveras, or Amador.

“Granite appears as the bedrock on the western border of the mining region. No rich quartz veins are found in the granite at an elevation of 2,500 feet or more above the sea.

“The lime belt, which is distinctly traceable across Tuolumne, Calaveras, and Amador, appears at Indian Diggings in El Dorado, and then seems to be lost.

“A new lime belt appears very distinctly twelve miles west of the main belt. In this new belt is the beautiful Alabaster cave, near Centreville.

“El Dorado has 25 ditches, with a total length of 821 miles, constructed at a cost of \$1,500,000. Of these the principal are the South Fork, the Pilot Hill, and the Michigan Flat ditches....”

Miscellaneous Resources of California (circa 1867)

“A considerable part of the marble used for tombstones in California is obtained from a marble quarry at Indian Diggings. Steatite, or soapstone, of very good quality is obtained from a quarry near Placerville, and numerous places in the county supply a chalk-like silicate of lime that is used in San Francisco for polishing metals, especially silver-ware. The county has 85,000 acres of enclosed land, 22,000 acres under cultivation, 1,164,000 grape-vines, 91,000 apple trees, 52,000 peach trees, saws 10,000,000 feet of lumber annually, has taxable property assessed at \$3,500,000, and casts 5,000 votes....The Alabaster cave in the northwestern corner, and Lake Tahoe at the northeastern, are both places of fashionable resort.”

Indian Diggings Marble Quarry, El Dorado County, California (circa 1867)

“Indian Diggings, 25 miles southeastward from Placerville, is on the limestone belt, and is the furthest north of all the large mining camps on that belt. No solid bed rock is found here. It is supposed that pay gravel is found 200 feet from the surface, and to drain the diggings to that depth would require a tunnel a mile long. At Slug gulch a shaft was sunk down through what appeared to be solid limestone bed rock into a stratum of limestone boulders. A ditch of water was accidentally turned into this shaft, and the water ran there for several days without any accumulation of water in the shaft. No outlet was ever discovered. Brownsville, at the side of the Indian Diggings, may be considered part of the same place, and the two together have about 20 acres of deep diggings, which will not be exhausted for many years. Indian Diggings and Brownsville, unlike Columbia and Volcano, do not wash with a pipe in a dump box....”

Marble, Limestone, &c. in California (circa 1867)

(pp. 241-246)

“The use of marble for domestic, artistic, and funeral purposes is very general in California, especially in San Francisco. Marble mantels, tables, and slabs are to be found in almost every residence, workshop, and store. The graves of all, save the utterly friendless dead, are adorned with marble tablet or monument of some kind. This taste has created an important branch of productive industry.

“There are fourteen factories engaged in the manufactures of marble in San Francisco, some of which employ 30 or 40 men. One has steam machinery for cutting and polishing the marble, and turns out 3,000 feet of slabs per month, in addition to tombstones, mantels, and other ornamental work. There are marble factories at Sacramento and Marysville, and one at each of the following towns in the interior: Stockton, Sonora, Petaluma, Santa Cruz, San José, Downieville, Folsom, and other places. Probably 1,000 persons are employed in California quarrying, transporting, and working marble.

“The consumption in San Francisco averages 500 cubic feet per month; the factories in the interior use about one-fourth as much; total consumption in the State, say 600 feet per month, or 7,200 feet per annum. The average price of marble at present is \$5 per foot. It thus appears that

the value of the raw material used in this business amounts to \$36,000 annually. The value of manufactured marble in the State is estimated at \$2,500,000.

“The most singular suggestive feature in this business is presented in the fact that, although California contains an abundance of marble of great beauty and variety, most of that used in San Francisco is imported from Italy or New York. This fact may be attributed to the want of good roads and cheap transportation. It is found more economical to bring the raw material from Genoa, Italy, including transshipment at Bordeaux or Marseilles, than from the foot hills in the State, less than 100 miles from Stockton or Sacramento.

“There are two firms in San Francisco engaged in the importation of marble. Brigadelli & Co. are in the Italian branch of the business. They own a vessel of 300 tons register, sailing between San Francisco and Genoa. Large quantities are brought by French vessels from French ports. From June, 1866, to June, 1867, this firm imported 545 tons of Italian marble and had 600 tons more on the way, the whole of which was sold, leaving orders still unfilled. The present price of Italian marble is 50 cents per superficial foot, in slabs of seven-eighths of an inch thick; in blocks of ordinary dimensions, \$5 per cubic foot; blocks weighing several tons, at \$6 per cubic foot. California marble cannot be laid down in San Francisco at these rates. Myers & Co. import Italian marble from New York, where it is brought in vessels from Genoa. This firm also imports white marble from Vermont, which sells at \$15 per cubic foot, being used in the finer kinds of work. Some of the ornamental mantels in the homes of the wealthy cost \$750 to \$1,000 each.

“The marble dust used in the preparation of effervescing beverages is imported from New York. Five hundred tons annually are consumed, at a cost of about \$30 per ton.

“The cost of transportation, which gives the imported marble a monopoly of the markets along the coast, prohibits its introduction in the interior. All the factories in towns above Sacramento, Marysville, and Stockton use the native marble, because it is cheapest at these places. With reference to the quality of the Pacific coast marble, as compared with the imported article, the fact should be taken into consideration that it is excavated from near the surface. None of the quarries have been opened to any considerable depth; consequently the marble is scarcely as fine in color or texture as it will be found at a greater depth. Much of it, nevertheless, when compared with Italian, loses nothing in the contrast. Many samples of the California marble are superior. The block of white marble, from the quarry at Columbia, Tuolumne county, from which the sculptor Devine* formed the bust of the late Senator Broderick, compares favorably with the Carrara in color, texture, and purity.

(* *Patrick J. Devine, sculptor, located in Sacramento. Peggy B. Perazzo*)

“There are many localities in California where quarries of marble are known to exist, but, with few exceptions, they remain undeveloped. A belt of limestone traverses the State from north to south, between the foot hills and the Sierras, said to be 20 miles wide, forming a prominent feature of the topography of the counties famous for placer gold, particularly in Tuolumne, Calaveras, Amador, Nevada, El Dorado, and Placer counties. This belt abounds in white or grayish marble; and it is not improbable marble of variegated colors will be found on more

thorough examination, as local causes are known to control the color. In illustration, it may be stated that in the gulch on the south side of the road between Columbia and Gold Springs, Tuolumne county, there are bodies of marble of a jetty blackness, colored by manganese; on Matelôt gulch, about a mile to the east, there is a deposit of marble which, through the action of salts of iron, has been mottled with red, brown, yellow, blue, and green spots; on Mormon gulch, about three miles to the west, are masses of marble of very fine texture veined with pale green by the action of chlorine. This variety of color is not peculiar to that locality, but may be observed throughout the State. The Suisun marble, of Solano county, and the black and white marbles recently found near Colfax, Placer county, are cases in point.

“Little attention has thus far been paid to the marble quarries of the State, because the working of them has not been profitable, except in a few localities. As soon as railroads and cheaper labor shall remove existing impediments, they will probably become a source of profit, both to individuals and to the State.

“The most important quarries at present worked are the following:

Indian Diggings Marble Quarry, El Dorado County, California (circa 1867)
(pp. 243)

“Indian Diggings. – This quarry is located on the limestone belt, above referred to, in El Dorado county. It was opened in 1857. A considerable quantity of marble has been taken from it, darkly and coarsely marked with gray and black. It is very beautiful in large masses, but has a smeary appearance in small pieces; it is susceptible of a high polish, but it retains well. Monuments, after exposure for 10 years to the heat and cold peculiar to the foot hills of California, are as bright and glossy on the surface and edges as when erected.*

(Many of the old cemetery stones in California cemeteries constructed from the Indian Diggings marble show considerable disintegration along the gray veins in the stone today. Peggy B. Perazzo.)

Building Materials in California (circa 1867)
(pp. 247-250)

“Building Materials. – The mountainous nature of the Pacific coast, and the geological formations to which the rocks composing the mountains belong, suggest the existence of a great variety of building materials. Few countries possess greater abundance or variety of these materials than California, and there are few cities in the United States where equal opportunities are afforded for comparing the merits of the materials used in other countries with those obtained at home, than are presented at San Francisco. In the early days of this city everything was imported, from bread to clothing for its inhabitants to lumber, brick and stone for their houses. The city hall is built of Australian freestone, several of the banks and other large edifices are built of China granite, and there are hundreds of steps, pillars, lintels, and other portions of buildings, of sandstone and granite imported from the Atlantic States and Europe. The

foundations of many of the old buildings in the city are laid on imported bricks. None of these materials are found to be as durable or as handsome as those since obtained in California. In this, as in other mineral resources, the cost of labor and transportation has impeded development. It is only under favorable conditions that stone for building will pay to ship to San Francisco from the interior of the State; while the cheapness, excellence, and abundance of the lumber, and the general adaptability of the soil for the manufacture of bricks, cause these materials to be used for building almost everywhere throughout the State. The introduction of iron mouldings for the decorative portions of large structures prevents a demand for stone for such purposes. The Bank of California building, at San Francisco, is the only structure of cut stone of any magnitude, outside of the government fortifications, on the Pacific coast. Under such circumstances little attention is paid to opening quarries to test the quality of the stone. The consumption of stone is confined to granite for curbing and paving the streets, and the basements and steps for a few of the more costly buildings at San Francisco.”