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The History of Quarrying in California
Presentation for the International Stonework Symposium 2011
January 13, 2011

During the late 1800s and early 1900s building stone was a very popular construction material. With the entry of the United States in to World War I in April 1917, stone was no longer needed on as large a scale as in the years before; and the focus became supplying men and materials for the war effort.

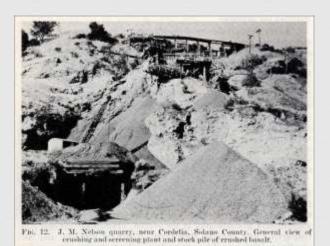
In earlier years, large blocks of stone were used for both foundations and the walls of buildings, but building methods had changed for large buildings. The demand for stone declined with the increased use of concrete and structural steel in which building used stone in panels on the exterior, although there was continued use of decorative stones on the interiors of large buildings.

By the late 1920 and early 1930s after the stock market crash in 1929 and the following recession, the stone companies experienced tough years due to the decreased demand for stone and the enormous cost to automate and update their equipment.

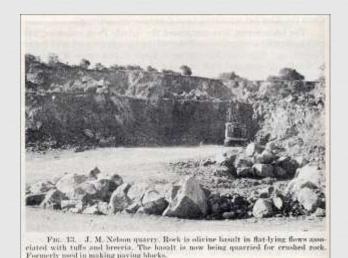
Another cause for the decline in the demand for stone during the recession was the lack of government and private contracts that had dried up. When the United States entered World War II in December 1941, the focus again was on the need for men and materials to be focused on the war, except in those fields that were needed to supply the war, and the salvaging of metal from the mines and quarries to be used in the building of needed arms, ships, and other military needs.

During the early 1900s, many stone companies went bankrupt. Some were able to reorganize, but many went out of business permanently. Even the Raymond/Knowles quarries in Madera County which sold their popular "Sierra White" granite ceased production during the 1940s and 1950s due to lack of demand for their product.

In later years, some of the California quarries became prosperous. Many crushed rock quarries opened or the old dimension stone quarries were transformed into crushed rock quarries to provide for the increased demand for the product.



**J.M. Nelson quarry, near Cordelia, Solano County**. General view of crushing and screening plant and stock pile of crushed basalt.<sup>4</sup>



**J.M. Nelson quarry**. Rock is olivine basalt in flat-lying flows associated with tuffs and breccia. The basalt is now being quarried for crushed rock. Formerly used in making paving blocks<sup>4</sup>



Pacific Coast Aggregates Company operation near Livermore, Alameda County. Rock, sand, and gravel are scraped from surface deposits by heavy earth-moving equipment, each unit carrying 20 tons...In the background is the gravel pit and plant of Henry J. Kaiser Company.<sup>4</sup>



Fig. 2. An old photograph of the Flesh-Tiblestis seek quarry crushing plant and londing drive assess Windows, west of Richmond, Control 2-6ast Country, Crushen reds one was abgreed by large in large spin boxes as shown in the left middle ground, Querry was in mandature of the Franciscan formation. Size in was occupied by isoscilations concerted with the Standard Oil Compony refinery at Richmond. Poi isoscilations concerted with the Standard Oil Compony refinery at Richmond.

An old photograph of the Healy-Tibbets rock quarry crushing plant and loading dock near Winehaven, West of Richmond, Contra Costa County. Crushed rock once was shipped by barge in large open boxes as shown in the left middle ground. Quarry was in sandstone of the Franciscan formation. Site is now occupied by installations connected with the Standard Oil company refinery at Richmond (ca. 1950).<sup>4</sup>

The granite quarries at Raymond and Knowles are again quarrying and shipping slabs and monuments made from their granite. Other quarries such as the Inyo Marble Company dolomite quarries switched over to producing aggregate. Dimension stone is no longer available at either the Inyo County quarry or the Columbia marble quarries.

The McGilvray and Colusa sandstone quarries (originally opened in 1897 and located in Colusa County) is another example of a company and quarry that did very well from the 1890s until the early 1900s. Sandstone from the 2 Colusa County quarries was used throughout the Pacific region, including the Hawaiian Islands. When the Great Recession hit (a worldwide economic recession) started in about 1929 (and lasted until the late 1930s or early 1940s), their business decreased because new development ceased.



Pm. 3. Colum sandstone quarry near Sites, Colum County, from which building stone-for such San Francisco structures as the Perry Bindding, St. Francis Horst, and Flood Building was taken. Sandstone beds of Upper Createssus age range from 18 inches to 35 feet in thickness. Photo couring Pacific Gas and Electric

Colusa sandstone quarry near Sites, Colusa County, from which building stone for such San Francisco structures as the Ferry Building, St. Francis Hotel, and Flood Building was taken. Sandstone beds of Upper Cretaceous age range from 18 inches to 35 feet in thickness.<sup>4</sup>



Photo Ho. St. Sandroom body in McGilvery quarry, Colona Courty, California, books

Sandstone beds in McGilvray quarry, Colusa County, California, looking north. Bed in center 15 feet thick. Colusa sandstone quarry in middle distance.<sup>5</sup> (The McGilvray Stone Co. sandstone quarry was located across and down the road from the other Colusa Sandstone Co./Knowles quarry.)

In the years prior to World War II, "...less-expensive building materials, such as concrete, stucco and brick replaced dimension stone in many instances." During those years many of the active California quarries ceased to operate. (The Colusa sandstone quarry today (2010) is actively being quarried under the name of the Brownstone Quarry, and today is the only dimensional sandstone "block" quarry in California.)<sup>2</sup>

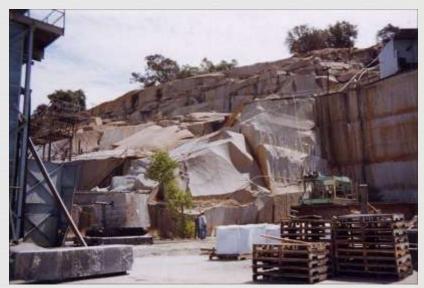
In the 1990s, there was a large increase in the use of dimension stone "...for residential construction in stone fireplaces, renovations, tile for bathrooms and entryway, and especially granite kitchen countertops."

In a 2004 interview, Sean Weaver, the president of California Quarries in Maxwell, Calif. felt that the 2004 market was strong and that there would be an increased need for stone. He stated that many of the old quarries have been reopened again. This interview was done four years before our current recession in which many companies and workers in the building industry are suffering from decreased construction, loss of contracts, and jobs.<sup>1</sup>

The Raymond Granite quarries in Madera County are in operation today, now owned by Cold Spring Granite of Minnesota. The Raymond quarry works produces dimension stone in the form of polished slabs, cemetery monuments and vaults, and paving blocks. Both "Sierra White" granite from the Raymond quarries and "Academy Black" granite from Fresno County are processed at the Raymond works and shipped out by truck.



Raymond Granite – Upper Quarry – "Sierra White" Granite



Raymond Granite – Lower Quarry – "Sierra White" Granite

As I mentioned earlier, the Colusa sandstone quarry today (2010) is actively being quarried under the name of the Brownstone Quarry, and today it is the only dimensional sandstone "block" quarry in California.<sup>2</sup> (The active Brownstone Quarry was once known as the Colusa Sandstone Co. and the Knowles quarry.)



The Colusa Sandstone Co./Knowles/Brownstone Quarry (active today) (2006)



Photo of the McGilvray sandstone quarry located across the road from the Brownstone/Knowles/Colusa Quarry (inactive)



Overview of Sierra Placerite (Rhyolite Tuff) Quarry, El Dorado County



Nun's Canyon Quarry, Glen Ellen, Sonoma County Located in the vicinity of the Valley of the Moon flagstone quarry. (Photo by Hal Weise of Nun's Canyon Quarry)

Many aggregate and industrial mineral quarries are active today that were opened during the last century and continue to be actively quarried today. Some of today's aggregate quarries were once dimension stone quarries that have been turned into aggregate or industrial mineral quarries. The Inyo Marble Co. quarry in Inyo County is one example where they once quarried dimension stone. Today F. W. Aggregates quarries dolomite for use as aggregate. Another example are the Columbia marble quarries that once dimension stone quarries. Today Blue Mountain Minerals quarries industrial minerals in the old quarries, which are now too fractured from blasting to be used as dimension stone ever again.



F. W. Aggregates Quarries at a Distance



One of the White F. W. Aggregates Quarries

(Contd.)

In many states like Vermont, Georgia, Indiana, Massachusetts, and many others, stone quarries are historically and economically valued. Here in California, many people are not even aware that we have stone quarries. If they are aware of them, they only see them as "eyesores" on the landscape.

Through our web site, Pat and I are hoping to make more people aware of our historical stone quarries so that their significance can be valued as they are in other states and countries.

#### Sources:

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- 2. *Stone Business Online*, "California Quarries: Cutting New History," by James Abner, October 5, 2003. http://www.stonebusiness.us/index.php?option=com\_content&view=article&id=726&Itemid=99
- 3. "Welcome to the 21st Century of Stone in North America," by: Jeffrey Matthews, Trade International, Inc. <a href="http://jbmatthews.home.mindspring.com/articles\_21century.html">http://jbmatthews.home.mindspring.com/articles\_21century.html</a>
- 4. Geologic Guidebook of the San Francisco Bay Counties. Bulletin 154, Olaf P. Jenkins, Chief, California Division of Mines, San Francisco, California, December, 1951.
- 5. Report XIV of the State Mineralogist Mines and Mineral Resources of Portions of California, Chapters of State Mineralogist's Report Biennial Period 1913-1914, Part IV. "The Counties of Fresno, Kern, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus," by Walter W. Bradley, Field Assistant (field work in August and September, 1914), California State Mining Bureau, San Francisco, California, 1916.

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