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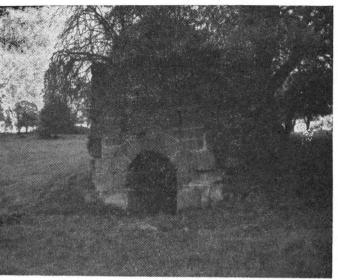
THE EXPLOITATION OF LIMESTONE IN CALAVERAS COUNTY

(Based on remarks by George B. Poore, Jr., and others at the February and March meetings of the Society.)

From the earliest advent of the white man, Calaveras County has depended heavily upon its natural resources. Gold, a magical word, brought him flocking from all over the world to the Mother Lode in the foothills of the Sierra Nevada. However, once here, man had to exploit other raw materials in order to survive. Cattle were brought up into the hills to graze the abundant grasslands and thus provide food. Timber was cut and sawn into lumber for the construction of dwellings. Stone was gathered or quarried for buildings, and the Mexicans taught the newcomers to make adobe block. The clayey soils were quite satisfactory for burning into common brick. Water was ditched around the hills for mining purposes, later to be used for irrigation and the generation of power. The ubiquitous oak supplied a cheap and easily obtained fuel, as well as the raw material for charcoal.

One very important commodity, lime, was needed for constructing buildings. So it was that limestone, one of the most abundant and versatile materials, was early sought out and put to use. Calaveras was particularly fortunate in having many small high-grade deposits of this rock, and nearly every sizable community found one close at hand. Just where in the county it was first quarried, though, is lost to history.

Probably the first and most important use of limestone was in making quicklime. Fortuitously, the oak provided an especially good fuel for the process, in that the ash content was low and the flame characteristics and burning temperature ideally suited to the calcining of the stone into lime. Many old field kilns are still in existence. In these, spalls of limestone and oakwood were charged into a circular pit lined with field stone. After burning, the chunks of quicklime were recovered. A few of the kilns were improved to a crude shaft kiln design, so that as the burning took place, more fuel and stone could be added at the top, and the quicklime and ashes raked out at the bottom. This quicklime, so easily manufactured, when mixed with sand and water provided the mortar to bond the brick and stone walls of the old buildings, and stucco plaster for waterproofing the adobe blocks and finishing the interiors. That such a simply made material was effective is demonstrated by the many



EAST YOUNG KILN



WEST YOUNG KILN

These two lime kilns, on the old Young place near Double Springs, are constructed of local rock, faced with cut Mehrten sandstone, also quarried close by, and are excellent examples of field kilns. They were built on the hillside, so that they could be charged with limestone and oak wood, hauled in by wagon from the vinicity, through the small opening at the top. The quicklime and ashes were removed through the archway and opening at the bottom. A number of well-built foundations and small buildings, probably constructed by the same stone mason, may be seen near these kilns.

masonry buildings still standing and in use, dating from this early period.

There are a number of field kilns scattered about the county. One of these sites is on the turkey ranch just south of the town of Mountain Ranch. Another is at the Oneto Ranch, on the Kentucky House-Poole Station road, south of the cement plant. There is also an arrastre at this site, once used for the milling of gold ore. Three kilns are located on the Young Ranch, north of Double Springs, and one was said to have been used on the Gale

Ranch nearby. On Haupt Creek, between Toyon and North Branch, above Hogan Reservoir, may be found the remains of an old kiln, not far from the site of Petersburg. Well-preserved kilns are still standing on the Bear Mountain Ranch, south of Poole's Station. These may be among the last commercially operated in the county, probably supplying lime to the smelter at Copperopolis. There is a kiln at Rocky Hill, near Murphys. Lime was burned on the old Bernasconi Ranch, south of Fourth Crossing, where there are the remains of a small kiln. On the Gianelli Ranch, a mile north of Vallecito, lime was commercially produced from field kilns. Frank Canepa burned lime at his marble quarry near Vallecito. And undoubtedly there are more sites that have long been forgotten or destroyed.

Another raw material discovered early in the county's history and which became extremely important a century ago was copper, in the form of sulphide ores, oxidized and enriched near the surface. Local smelters were constructed, and both raw and burned lime were used, at one time or another, in these plants. As noted above, the Bear Mountain Ranch kilns were believed to have supplied the Copperopolis smelter. The Penn smelter at Campo Seco drew lime from a number of small quarries located in the surrounding area. These were located on the Gale, Markwood and Young properties.

The amount of the limestone and lime production was not officially recorded until 1904, when 3500 barrels of lime were burned. As much as 14,000 tons of limestone was quarried in 1908, principally for smelter consumption.

In the rough early days of the county's history, people often died young. Disease, accidents in the mines, and foul play all took their toll. Some of this early history is recorded for us, chiselled into the limestone and marble* headstones in the older portions of the cemeteries. Many of these old monuments were undoubtedly fashioned from Calaveras stone, by such craftsmen as Matthew Hertzig (Sr.).

Although the center of the sawn marble industry was in Tuolumne County, there was a quarry on the north slope of the Stanislaus River on the Calaveras side. This was the Eagle quarry. Frank Canepa, of Vallecito, also produced marble for sawing, in a small operation just south of the Camp Nine road. The white marble used for the facing of the Hall of Records in San Andreas came from the small deposit on the south side of Murray Creek near Sugarloaf Hill. Some marble was produced just north of the Gambetta Ranch, at the point where the North Fork of the Calaveras and Esperanza Creek junction, near Whiskey Slide. Uncut marble is a popular material still used for masonry in Murphys, and stone "fences" constructed of this rock may be seen in the vicinity.

Calaveras County is noted as being, next to Tulare, the "most speliologically endowed county" in the state. These caves have become another of the important limestone resources. Today, at Moaning Cave near Vallecito, and Mercer's Cave, north of Murphys, guided tours take the visitor deep below the surface to see the wonderful cave formations. Many years ago, one of the caverns at Cave City was open to the public. John Muir's description of touring this cave nearly a century ago was recently reprinted in these pages.

Archeologists find these caves very interesting, too, because of the Indian remains occurring in them. There has been a controversy for many years as to whether the caves were used for burial, or whether the Indians were interred either accidentally or by their enemies. Some of the human bones are believed to be as much as 12,000 years old, or even older. Paleontologists likewise have studied these caves, as for example, the one now mined out, at Quarry No. 4 of the Calaveras Cement Co. at Old Gulch, where bones of extinct birds and animals were found, as well as human bones. The most recent scientific researches into our limestone caverns have been studies of the effect of earth-moon tidal stresses in the marble walls of the Wool Hollow cave, also on one of the Cement company's properties.

By the end of the second decade of the century, the mining of limestone and marble had ceased in Calaveras and although the stone had been used for a variety of purposes, it still added up to only a minor mineral commodity. However, in late 1922, the situation suddenly changed, and limestone once again entered the picture, ultimately to become the county's most important mineral product, and in fact, greater in dollar volume than all other mineral production since the days of the gold rush.

This came to pass in the following manner. prominent mining engineers, Wm. Wallace Mein and George B. Poore, had, with some associates, a few years previously, formed the Bishop Oil Co. The main office was in San Francisco, in the Cluny Building. One day in 1922, December 15 to be exact, Bishop's telephone went "on the blink." "When George Poore went next door (to the office of a certain William Macnider) to make a telephone call, his attention was attracted to a collection of limestone samples on Mr. Macnider's desk . . . When his call was completed, he asked about the samples. Soon the two men were deep in conversation." It seemed that Mr. Macnider was, with some Stockton people, trying to promote the Kentucky House limestone deposit, in Calaveras County, as a raw material for cement manufacture. but apparently was not making much headway.

Mr. Poore then called Mr. Mein's attention to the matter, the deposit was visited, and things started to happen. Under Mr. Mein's leadership, the Crown Cement Syndicate was soon formed, and an extensive sampling program began. Additional limestone properties were optioned. A second organization, the Calaveras Syndicate, was set up to provide financing for a cement mill. Then, in January 1925, Calaveras Cement Company itself was incorporated, taking over the properties developed by Crown Cement. Plant construction was started in May of that year, and production began a year later, in May, 1926.

^{*}Marble is merely limestone that, due to high temperature and pressure resulting from metamorphism, is recrystallized to a coarser grain, with the development of a different texture. Fine-grained limestone makes much better lump quicklime than the coarser marble, but the marble generally has a more pleasing appearance when sawn and polished.

The details of the formation of the Calaveras Cement enterprise, the background of the principals, and the subsequent history of the company have been well recorded in a brochure entitled "Twenty-five Years of Building the West," by A. M. Ross, printed in 1950 by Calaveras Cement Company, and need not be repeated here. However, from the point of view of residents of the county and employees at the Kentucky House plant, some portions of this story stand out in sharper focus.

Calaveras County, in the early twenties, was facing an uncertain and rather gloomy future. The gold mines were steadily declining in importance, and new prospecting and exploration was singularly unproductive. The sudden and unexpected revitalizing of the county's economy by the creation of a totally new industry put Calaveras back on the map. And, as Judge J. A. Smith was wont to point out, the county will always owe William Macnider a debt of gratitude for his part in this development.

Once the operation was begun, perhaps the most significant fact has been, not just the plant's existence, but its steady increase in size, and thus, in its importance to the county. Commencing with about 90 employees in 1926, increasing to 150 by '39, and today to some 435, it has become the largest single employer (and taxpayer) in the county. The original two small kilns, with a capacity of barely a million barrels of cement a year, were joined by a third, fourth, and then a fifth kiln, all of a larger and improved design, in '46, '51, and '56. This brought the capacity of the plant to over four million barrels. And this, in turn, has been significantly increased by continuing improvements in technology and equipment.

Calaveras Cement was obliged to go into the railroad business, in order to start the operation. The company built the last five miles of railroad from Macnider switch to the plant, including trackage into the quarries. After a couple of years, the Southern Pacific Company bought most of this portion of the road, and extended their service from Macnider to the plant. The company, however, continued to operate the quarry line until it was replaced by trucks in 1936. The 20-ton rail cars were loaded by power shovel and then hauled to the plant by "dinky" engines. One of the dinky operators — and a good one was "Heavy" Royston. He would take time off now and then with his brakeman friend Bill Abshire for some reason or another. Shortly after these two returned from a trip, the community was shocked by the sudden appearance of some "G-men" who with Sheriff Joe Zwinge, took the two men into custody. They had been identified as members of the Jake Fleagle gang, specialists in bank robbery in the Rockies. They were sent back to Colorado for trial, and on July 18, 1932, were hanged for murders involved in the pursuit of their calling.

In the late 'twenties, the company purchased the Gambetta and adjoining properties above Jesus Maria for the extensive limestone deposits. These were sampled and then diamond drilled, and since have been held in reserve as a potential future source of cement rock.

Calaveras, in 1933, became one of only four U.S. concerns manufacturing white cement, and continued so for some 20 years. This brought national recognition to the little company. In order to obtain the very high-grade

limestone needed, Quarry No. 4, near Calaveritas, was opened up that year by a truck road built across the Drury Ranch, and the white rock was trucked to the plant by way of Calaveritas and San Andreas. In 1935, the road was extended to Willow Creek, and limestone brought in via Highway 49. The following year the road was completed into the plant area, and shortly thereafter Quarry No. 4 became an integrated part of the operation.

Another progressive undertaking carried out by the company was the construction of a high pressure pipeline, in 1940, to bring gas from Rio Vista to the plant. This line was later (1957) purchased by P. G. & E. and its capacity enlarged, to serve the expanded cement plant and other customers.

In the fall of '59 the company was merged with The Flintkote Company, after nearly 35 years of successful independent operation. Although this has proven to be a progressive step in the development of the company, its news was received by most employees and county residents with regret, as they held the original ownership and management in high regard. A new one-kiln cement plant was then built at Redding, going on stream in January 1962. Many of the key employees of this new mill were drawn from the Calaveras County operation.

Because of the impending exhaustion of the Kentucky House and Old Gulch deposits, and because of the insufficient reserves at Gambetta, the company has recently acquired and is now developing a new deposit of limestone near Vallecito. This is rated as one of the largest such occurrences along the east side of the Great Valley, and will provide Calaveras Cement with raw material at present production rates plus all foreseeable future expansion for a century or more.

Today's large modern cement plant has developed tremendously from the little two-kiln mill, when Tommy Deakins took care of yard clean-up with his little horse-cart. Looking ahead, future expansion and improvements in technology will in all probability prove to be just as spectacular.

New Members

We welcome the following new members who have recently joined the Society:

Mrs. Laura I. Theiler, Stockton.
Mr. Wm. Wallace Mein, Jr., Woodside.
Calaveras Cement Company, San Francisco.
Mr. and Mrs. Myrel Des Jardin, San Andreas.
Mrs. Mary K. Ryan, Arnold.
Mr. Charles Loomis, San Andreas.
Mr. David E. Cosgrave, Altaville.
Mrs. Dorothy Sloan, San Andreas.
Mr. and Mrs. Frank H. Ford, San Andreas.
Mr. L. H. Getchell, Oakland.

Erratum

Listing of an important bound file of the "Prospect" at the County Recorder's Office was inadvertently omitted in the INVENTORY OF CALAVERAS COUNTY NEWS-PAPERS in our January issue. To correct your copy, please add to the "Prospect's" inventory the following reference:

CalCoCH — Sept. 1947 to date (Bound).

OFFICERS OF CALAVERAS COUNTY HISTORICAL SOCIETY

San Andreas, California

President	Paul E. Lewis, San Andreas
1st Vice President	R. Coke Wood, Murphys
2nd Vice President	Mrs. Alice Eldridge, San Andreas
Secretary	Mrs. Sadie Hunt, Valley Springs
Treasurer	Mrs. Marian Brandt, San Andreas
Directors	
	Albert E. Gross, Murphys
	Mrs. Ella M. Hiatt, Copperopolis
	George B. Poore, Jr., San Andreas
	Claude Smith, West Point

Las Calaveras is published quarterly by the Calaveras County Historical Society. Membership in the Society is \$4.00 a year, including subscription to Las Calaveras. Non-members may obtain copies of Las Calaveras from the Secretary. The original historical material in this bulletin is not copyrighted and anyone is invited to use it. Mention of the source will be appreciated.

The Calaveras County Historical Society, a non-profit corporation, meets on the fourth Thursday of each month at the Grange Hall in San Andreas—except for dinner meetings which are held each quarter at different places in the county.

EDITORIAL

Each day brings our new county government center closer to reality, as the huge earthmoving equipment grades the site and as the foundations are begun. This raises the question of the disposition of the old buildings on Main Street, and in particular, the Hall of Records. The latter, with only minor modifications, could be converted to a fine county museum. There is room for attractive and educational history displays, as well as safe storage of items not on exhibit. This is not so at the present extremely crowded and inadequate museum four doors down the street. There also could be space for an historical archive section, for documents, letters, and other manuscript material, original or microfilm copies. as well as for a reading and study room. Jointly administered by the County and the Historical Society, such a use for this building would go far to help preserve our gold rush heritage and the historical atmosphere of the area.

On March 1st, Mr. George Poore presented a letter to the Board of Supervisors on behalf of the Historical Society, suggesting that the Hall of Records be used in this manner, and that this section of San Andreas be designated as "Old Main Street" and preserved as an historical site, while still being actively used for modern-day business and county functions.

Book Department

Harry Bush, mining engineer, 84, a former resident of Angels Camp, and one of our newer members, is the author of "Smile, Please," a volume of light verse in a humorous and philosophic vein, recently published by the Exposition Press, N.Y.

SOCIETY NEWS AND NOTES

Calaveras is populated by the descendants of peoples from a number of foreign nations as well as nearly all regions of the U.S. The Society takes advantage of this rich background of culinary skills each quarter at its dinner meetings. One of its favorite haunts is Valley Springs, where the Methodist ladies can always be relied upon to provide a most excellent meal. Here was held the January meeting, where we had hoped to hear Member Don Biggs, who is Director of the California Historical Society. An accident unfortunately prevented Mr. Biggs from joining us. His absence was ably covered at the last minute by State Beaches and Parks Historian Allen Wells who gave a rundown on the state's current historical programs. After his fine talk I think we all felt that this important activity is in very good hands.

The Editor's Mail

Our last issue, on NEWSPAPERS IN CALAVERAS COUNTY, evoked a most interesting letter from Mr. L. Harold Getchell, nephew of Editor Getchell. Unfortunately space permits us to print only part of his remarks.

"Competition with the 'Calaveras Citizen' was exceptionally keen, especially in bidding for the county printing, an item of great importance to both papers. The bids were lowered each year until finally Clarence Getchell actually paid the county \$13.00 for the privilege of handling the printing (in the 'Prospect'), and this, according to my father, broke the 'Citizen's' back. During the following years the 'Prospect' enjoyed the county business, under more favorable conditions, I am sure.

"Clarence Getchell, who was born in 1855, represents the third generation of Getchells who made California their home. His grandfather, Washington Getchell, came to California in the early 'fifties. In turn he sent for his son, George Washington Getchell, who arrived with his family, including Clarence, in 1859.

"During his years with the 'Prospect,' Clarence was continually on the go. As late as 1923 I met him at a Calaveras Picnic in Oakland. You can believe his subscription book was much in evidence.

"While the 'Calaveras Prospect' was his first and greatest love, it is apparent that the financial return left something to be desired. To supplement his income, Clarence supplied a good number of the downtown merchants with their water supply. The water came from a deep well on one of his properties and was stored in a tank above the printing office. The water was usually in short supply and the complaints numerous." (This was the "Tank House," off Main Street opposite the new movie theatre, and which was later rebuilt into an apartment house, now owned by Mrs. Lillian Swanson. — Ed.).

"Not to be overlooked was the town's milk supply. Clarence maintained a herd of some three to six milk cows, the upkeep of which was minimal. These were permitted to graze on the open range which at the time just happened to be the county road between San Andreas and Valley Springs. For the sum of five cents per day a nephew could usually be engaged to bring in the cows at dusk.

"All of this may seem far removed from running a newspaper but in the life of Clarence Getchell it played a very important part."