



LIME KILN CHRONICLES

Newsletter of the Friends of the Cowell Lime Works Historic District
University of California, Santa Cruz

Dating District Structures

By Frank Perry

One of the challenges in piecing together the history of the Historic District has been to figure out when the various buildings, lime kilns, and other structures were built. For some structures, the year of construction is known with a fair degree of certainty. For others, the date remains elusive.

There are several ways to date a building. The best is to find a written account of it being constructed such as a building permit or an article in an old newspaper. Sometimes oral histories or old photographs provide clues. In other cases, one must look for evidence from the structure itself, examining the type of materials used and how the structure was designed and assembled. At some locations there is archaeological evidence in the ground under or around the building. All these techniques have been applied at the Cowell Lime Works Historic District.

The following is a list of significant District structures and the dates they were built. Readers who come across additional evidence are urged to email the Friends: limeworks@ucsc.edu.

Pot kilns. Pot kilns for converting lime rock to lime are known to have been in operation here since at least the early 1850s. Also known as batch kilns or intermittent kilns, there are three of this type in the District today.

Are these the originals? Probably not. Kilns dating from the 1850s (such as the upper Quarry Kiln and those at Pogonip) were lined with schist (a local rock)

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This 12-foot-long shovel was used to remove ashes from the kilns. It is one of several artifacts now on display in the Hay Barn.

Artifacts Go On Display In Hay Barn

If you have not seen the interior of the Hay Barn lately, it is worth a look. Over the past year and a half, the Center for Agroecology and Sustainable Food Systems (CASFS) has been busy installing interpretive signs and displays of historic artifacts.

"We've found that the displays are a great way to introduce visitors to both the campus's land use history, the various groups located on the South Campus, and the work taking place at the UCSC Farm and Alan Chadwick Garden," says Martha Brown, project manager. "For people not familiar with terms such as 'agroecology,' and 'food system,' they can get basic information on these topics and how the concepts and practices are relevant to their own lives."

There are six freestanding, double-sided display boards with text and photographs. There are also

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In the Newspapers, 100 Years Ago . . .

August 1, 1918. "Warning! Hunters are hereby notified that trespassing and hunting are strictly forbidden on any and all property of the undersigned. Mrs. May Baldwin McLellan, D. D. Wilder Creamery Co., J. A. Scaroni, Hercules Powder Co., Henry **Cowell** Lime & Cement Co."

August 12, 1918. "The construction of the quarters for the egg laying contest would not have been possible had it not been for the assistance given by a number of Santa Cruz merchants. . . . **Cowell** Lime & Cement Co. furnished the cement for the cement floors."

September 16, 1918. "Democrats Choose A. S. T. Johnson as County Leader. • At the regular meeting of the Democratic county central committee at the law library in the courthouse today, A. S. T. Johnson, local manager of the **Cowell** interests, was chosen county chairman."

October 7, 1918. "Harry **Cowell** Makes Substantial Buy of Bonds. • Replying to yours of September 27th, beg to advise that we have had this matter up with our Mr. S. H. **Cowell**, and have purchased for him . . . \$5,000.00 worth of Liberty Bonds, same to be credited to Santa Cruz. Yours very truly, W. H. George, Secretary [Henry **Cowell** Lime and Cement Co]."

November 2, 1918. "William H. Morgan, . . . shipping clerk for Henry **Cowell** Lime and Cement company in this city, passed away last evening, a victim of influenza." [aged 49]

November 4, 1918. "Artino Santi, a native of Italy and a resident of Felton, passed away . . . from the effects of influenza. He was in the employ of the **Cowell** Lime and Cement company at their kilns." [aged about 30]

December 27, 1918. "San Francisco — S. H. **Cowell**, president of a local cement corporation, yesterday paid the park commissioners \$825 for three bisons. **Cowell** desires the buffalos for his extensive ranch in [the] Santa Cruz mountains, where he plans to breed these animals."



Photo by Martha Brown

This ox yoke, once used on the Cowell Ranch, was loaned by the Santa Cruz Museum of Natural History.

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wall displays that describe the revitalization of the Hay Barn, highlights of the 50-year history of the UCSC Farm & Garden, and CASFS. Artifacts installed include an ox yoke once used on the ranch, a kiln shovel, and the historic weathervane from the Carriage House (see *Lime Kiln Chronicles*, Fall, 2016 on our website). A display of wooden lime barrels along with interpretive signs about the artifacts will be added soon.

"We now start all our public tours from the Hay Barn, so there is quite an uptick in the number of people getting familiar with the new facility and the history of the campus's land use," reports Martha.

The Hay Barn is open most weekdays from 8 am to 3 pm, but call ahead (831-459-3240) to make sure there is not an activity taking place. Free, docent-led tours of the adjacent 30-acre Farm meet at the Hay Barn the first Sunday of the month at 2 pm, from April through November.



Photo by Frank Perry

Friends board members Frank Zwart, Cynthia Mathews, and Don Lauritson admire the informative panel on the lime industry.

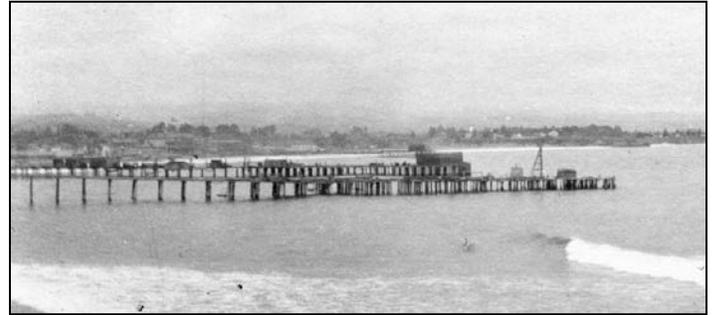
Alverda and Anne Depart

The Friends will miss Alverda Orlando and Anne Hayes at our regular board meetings.

Alverda served as secretary and decided to step down from the board to work on a book she is writing about the history of Davenport and the North Coast. Her previous works include the book *Lime Kiln Legacies*, which she co-authored in 2007 with five others. A longtime Santa Cruz area librarian, Alverda was recently interviewed by board President Frank Perry for part of the “In Search of Santa Cruz” series on YouTube. To watch, just go to YouTube.com and search for “Alverda Orlando” in quotation marks. She is the only person on YouTube with that name.

Anne Hayes began serving as our development liaison in 2013, replacing Lynne Stoops. Anne helped several South Campus groups with development, and we greatly benefited from her wise advice over the past five years. Anne decided to leave her position with University Relations, but promises to remain a loyal member of the Friends.

We thank both Alverda and Anne for all their help.



Capitola Historical Museum

The Cowell Wharf, seen here in the foreground in 1905, was a Santa Cruz landmark through the late 1800s and very early 1900s.

New and Renewing Members

Our sincere thanks to these new and renewing members. Their donations enable the Friends to continue its mission of education and historic preservation. We have several important projects in the works, which we will be sharing in future issues of the *Lime Kiln Chronicles*.

- Ruth I. Antolini
- Jim and Nancy Burns
- Joe & Marcella Hall
- Deborah & John Muth
- Glenn Oppenheim
- Frank & Jill Perry
- Ellie Reese
- Steve & Alice Schnaidt
- Daniel Snyder & Robert Hays

HENRY COWELL & CO.,
 MANUFACTURERS OF
SANTA CRUZ LIME.
 IMPORTERS OF
**English Portland and Rosendale Cement,
 Plaster, Hair, Marble Dust, Fire Tile,
 Fire Bricks, Fire Clay, Etc.**
211-213 DRUMM ST.
 Between Clay and Washington.

In 1889, after Isaac Davis died and Henry Cowell bought Davis’s share of the company, the name was changed from Davis & Cowell to Henry Cowell & Co. In 1898 the name changed to the Henry Cowell Lime and Cement Company. This ad is from an old San Francisco business directory.

The *Lime Kiln Chronicles* is published twice each year (Spring and Fall) by the Friends of the Cowell Lime Works Historic District



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The three pot kilns near the campus entrance as they looked in about 1950. (Courtesy Santa Cruz Public Library)

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rather than imported firebricks like those in the District kilns.

A newspaper account from May 20, 1893, says that "Preparations are being made for building new kilns at Cowell's lower lime works." Assuming that these new kilns were actually built, the surviving pot kilns probably date from this time. These were known in the old days as "Cowell's Lower Kilns."

Cowell also rebuilt kilns at Adams Creek and Fall Creek around this time, and these closely match the size and style of those in the historic District. Cowell seemed to prefer this design.

Use of the District kilns had ceased by 1920 or maybe a little earlier.

Continuous Kiln. The Continuous Kiln (the tall one closest to Coolidge Drive) was built in 1861. We know this because of an article in the newspaper listing its construction among the "Improvements in Santa Cruz" for the year 1861: "Davis & Jordan: warehouse and patent lime kiln." (*Sentinel*, Dec. 27, 1861.) This general type of kiln is also known as a patent kiln, even though this particular one was apparently not patented. This kiln is mentioned in newspapers several more times in the 1860s, and it appears in a photograph taken in 1866.

Cardiff House. As with the continuous kiln, we can thank old newspapers for pinning down the year of construction. "Mr. A. P. Jordan is building a new residence in that most delightful situation

overlooking the town and the Bay of Monterey, long since selected as a site for building, near the lime-works of Davis and Jordan." (*Sentinel*, May 14, 1864.) Jordan sold his half of the business to Henry Cowell the following year. George Cardiff (Cowell property manager) and his wife, Violet, were the last residents prior to acquisition by the University.

Cook House. An important clue to the age of the Cook House comes from comments by Frank Lazarotti in a 1965 story by *Sentinel* writer Margaret Koch. "Much of the handsome stone work throughout the cook house was the work of Antone Lazarotti, who came to Santa Cruz from Switzerland in the early 1880s. His son, Frank, at the gathering, speculated that the cook house must have been built about 1888, and that's as close as anyone could estimate." (*Sentinel*, Feb. 21, 1965.)

It is always best to have more than one line of evidence for an important date. But for the cook house, this is still all we have.



Cook House

Photo by Frank Perry

Hay Barn. This barn was most likely first used to house oxen for pulling wagons and hay to feed the animals. During planning for the renovation and during disassembly, several barn experts found evidence for its age based on style of construction. They placed it before 1880, and perhaps as early as the 1860s. The barn was rebuilt in 2015 using large timbers with mortise and tenon joints and some of the original wood. It is used by the Center for Agroecology and Sustainable Food Systems (CASFS).



F. Zwart

The Hay Barn as it looked during reconstruction.

Cabin B. This is one of two cabins still standing and is where some of the lime workers resided. Photographic evidence dates it and the adjacent Cabin A back to at least around 1910. The use of “square” nails would tend to indicate construction prior to 1900. Archaeological artifacts excavated by UCSC students push the date back even further. Study of these by archaeologist Patricia L. Paramoure for her Masters thesis points to occupation “from around 1870 to around 1940, with datable artifacts clustered between 1870 and 1911.”

Barn G. According to Joe Conde, who grew up on the Cowell Ranch in the 1950s, Barn G was originally identical to the Hay Barn. Its date of construction is unknown, but it might be similar to its twin. It shows up in the circa 1910 panoramic view of the area. The University extensively modified the building for offices and shops. Because it has been extremely altered, it is not a contributing element to the Historic District.

Barn H. This barn dates from sometime between 1866 and 1910 based on historical photos. The University uses it for shipping and receiving.

Cooperage. The Cooperage is where the wooden barrels were assembled for shipping the lime. Although a written account of its construction has yet to be found, circumstantial evidence strongly points to 1869. In February of that year, a fire consumed the previous cooperage. Being essential to the lime business, a new cooperage would have been built as soon as possible. It was not particularly well built,

also suggesting hasty construction. The earliest known photo of it is the panoramic view from around 1910. It certainly looks as though it could have been 40 years old at that time.

Barn Theater. The University converted this barn to a theater in 1968, but the date of its original construction was unknown until recently. In April of this year, a newspaper article was discovered that described its construction: “Messrs. Davis & Cowell have just completed at their kilns, a model horse-barn, 74x40 feet, with basement for stable and hay above; a regular old-fashion heavy timbered frame, such as they build back in America, costing about \$1,300. C. D. Holbrook was the architect and builder.” (*Sentinel*, October 8, 1870.) Charles D. Holbrook was around age 45 at the time and was a well-known builder in Santa Cruz during the late 1860s and 1870s.

The above description is a near perfect match for the Barn Theater:

1. Oral histories state that it was used as a horse barn.
2. It is of timber frame construction.
3. It is the only barn we know of, existing or previously standing, with a basement.
4. It is near the kilns (in the context of the Cowell Ranch as a whole).
5. Its present dimensions of 76x40 feet for the original portion of the building closely match those in the 1870 article.

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Photo by Frank Perry

The Barn Theater is a converted horse barn built in 1870.



Panoramic view of the Cowell Lime Works, circa 1910. Although reproduced many times, this remarkable photo is worth examining closely. It remains a rich source of information on the nature of the operations at that time and shows several buildings still standing today. (Photo courtesy of Special Collections, McHenry Library, UCSC)

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Stone House and Granary. It is not known when these were built, but they probably date from the late 1800s.

Blacksmith Shop and Carriage House. These date back to at least around 1910 (based on panoramic photo) and could well date back to the 1800s.

Back in the early 1960s, when UCSC was established, most of the historic structures on campus had not yet reached the century mark. Over fifty years later, all are well past 100 years old, and their historical value has risen immensely. Through a quirk of history, the most intact late nineteenth century lime manufacturing complex in California is on the campus of a modern university. Its placement on the National Register of Historic Places is well deserved.



Cooperage in about 2006.

Photo by Frank Perry

When Did the Cowells Live in Santa Cruz?

By Frank Perry

Back in the middle 1970s, while a student at UCSC, I was delighted to find a little book in the campus bookstore titled *The Campus Guide: A Tour of the Natural Environment and Points of Historical Interest*. It was written in 1973 by Elizabeth Spedding Calciano and Ray Collett and cost just 75 cents. What a bargain! Calciano wrote about the pre-campus history of the land, including historic buildings and lime kilns, while Collett wrote about some of the trees, birds, and mammals on campus. This slim volume helped pave the way for the much more comprehensive *Natural History of the UCSC Campus*, published in 1982 and revised in 2008. It, in turn, inspired, *An Unnatural History of UCSC*, or at least inspired the title. For me, *The Campus Guide* helped kindle my interest in lime and lime kilns—an interest that continues to this day.

Most everyone who has written about the Cowell family agrees that they moved to Santa Cruz in 1865. But when did they move away? In *The Campus Guide*, Calciano wrote, "The family moved to San Francisco in either 1879 or 1897 (authorities disagree)." This was reiterated in the 1982 *Natural History* book.

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In a typed manuscript titled *Random Notes on the Cowell Family and Ranch* (dated January 19, 1971), she elaborated: "The yellow house near the entrance to the campus was originally built by [A. P.] Jordan. When Henry Cowell moved his family in, he built a sizable addition in the front. It remained the Cowell family home until 1897 when the family moved to San Francisco. (Some newspaper accounts put the date at 1879, but George Cardiff, for many years the local business manager for the Cowell Company, was certain it was 1897.)"

So it looks like George Cardiff, with whom Calciano conducted an oral history in the early 1960s, was the source of the 1897 date.

Among the newspaper accounts Calciano was probably referring to was one from 1953, when Henry Cowell Redwoods State Park was created from land donated by S. H. or "Harry" Cowell. Its "Story of the Cowells" used the 1879 date (*Sentinel*, November 8, 1953, p. 10). Harry was still alive then, but the source of the information in the article is not given.

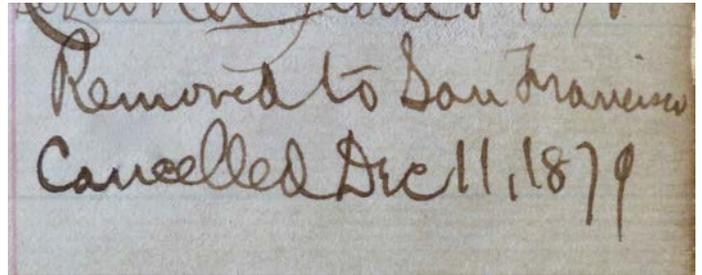
A 1968 newspaper article by *Sentinel* writer Margaret Koch, however, says the old Cowell house "was the family's main home until they moved to San Francisco in 1897" (*Sentinel*, August 11, 1968).

Four years later, however, in her book *Santa Cruz County Parade of the Past*, the same author used 1879.

In helping research the *Lime Kiln Legacies* book (published in 2007), I was determined to resolve these conflicting dates. This was something that should be knowable with access to the proper resources (some not readily available in the 1970s).

An examination of San Francisco City Directories soon revealed strong evidence favoring 1879. For the directory dated April 1, 1879, Henry Cowell's home address was listed as Santa Cruz, with the business headquarters in San Francisco. A year later his home address was listed as 1014 Bush Street, San Francisco.

What clinched it was an old *Great Register of Voters for Santa Cruz County*, preserved at the Santa Cruz Museum of Art & History. A note in the right margin says "Removed to San Francisco, Cancelled Dec. 11, 1879."



Voters for Santa Cruz County confirms that Cowell changed his permanent residence to San Francisco in 1879. Cowell first registered to vote in Santa Cruz July 26, 1867. (Courtesy of the Santa Cruz Museum of Art & History)

Solving even small mysteries like this is what makes historical research exciting. I learned how gold prospectors feel when they find a large nugget—or in my case, a nugget of information.

Cardiff can hardly be faulted. While Santa Cruz was technically no longer Henry Cowell's legal place of permanent residence, he continued to be a familiar figure around Santa Cruz. Son Harry, in particular, spent extended periods of time in Santa Cruz. His brother, Ernest, also kept close ties to the town. This was, after all, the ranch where the Cowell children grew up. Henry's three daughters, Sarah, Isabella, and Helen, also visited frequently until 1903 when Sarah was killed here in a buggy accident. The tragedy must have been terribly painful for her sisters, for they never again set foot on the Santa Cruz ranch.



This is one of the few photographs that purportedly shows two of the Cowell sisters. (Special Collections, McHenry Library, UCSC)



Photo courtesy of Frank Perry

Cowell Portland Cement Company (C.P.C.CO.) Locomotive. In 1908 the Cowell company constructed a large plant in Contra Costa County for manufacturing portland cement. The plant had its own railroad for helping haul the cement to market. The facility closed in 1946. In Santa Cruz, Cowell only had tramways—no railroads.

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