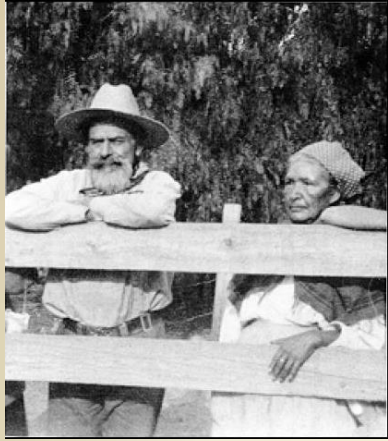


The West San Fernando Valley Lime Industry and Native American History



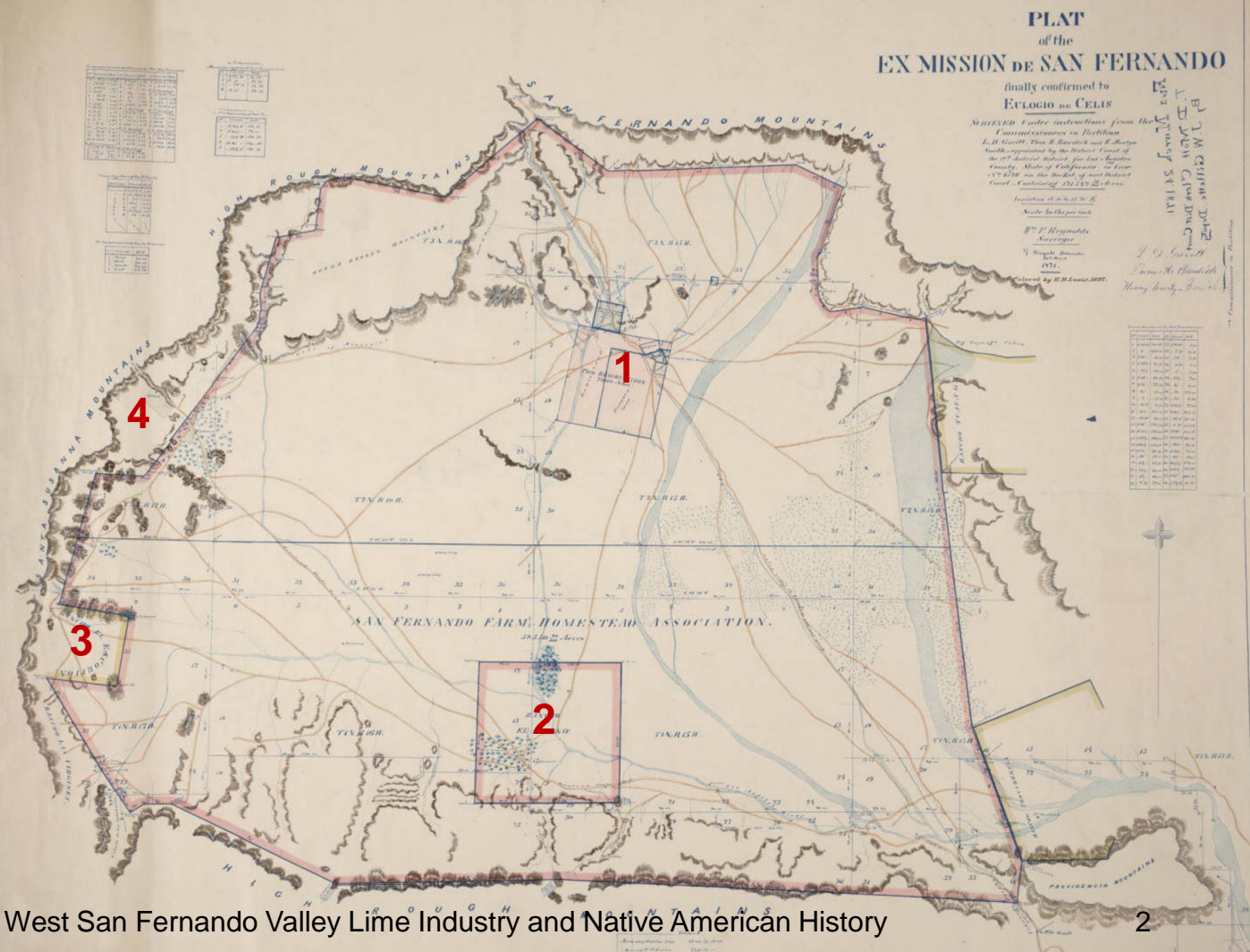
This presentation will cover the following topics:

- An overview of place names in the Eastern Simi Hills.
- The west-valley lime industry, recent archaeological findings at Dayton Canyon, and what we know about the 19th and 20th century west-valley Native American community.
- Anthropologist John P. Harrington's visit 100 years ago.

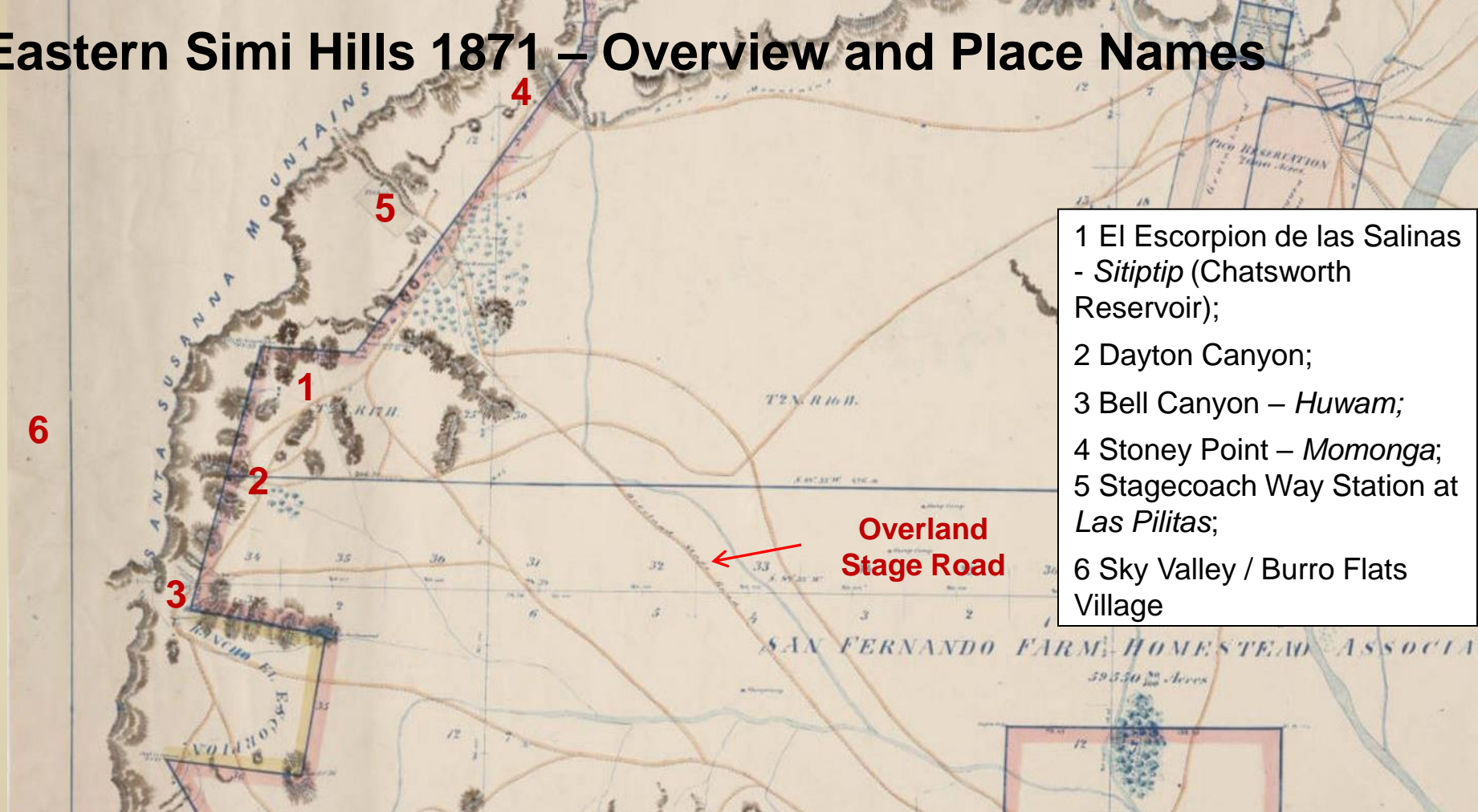


**Reference Points:
1871 Map of the Ex-
Mission de San
Fernando to Eulogio
de Celis (source
Huntington Digital Library)**

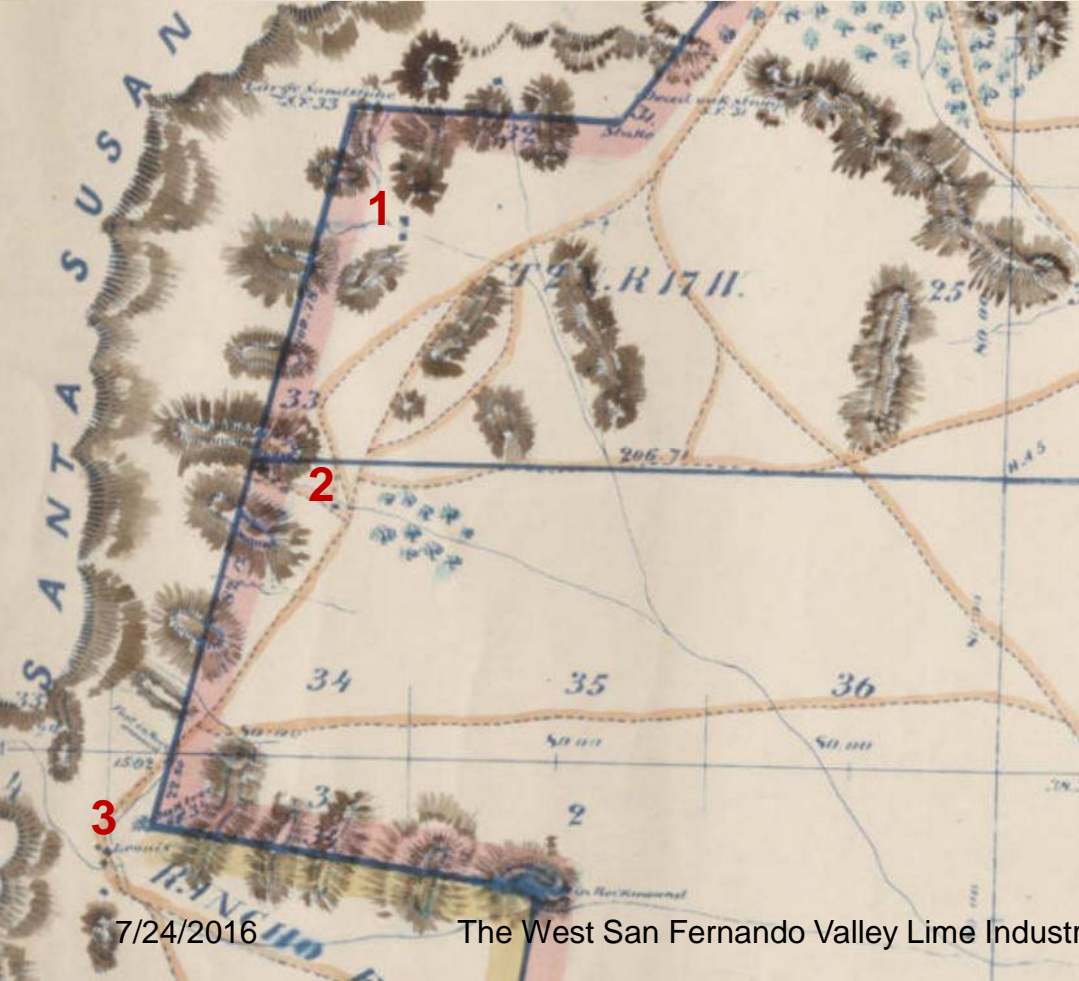
- 1 – San Fernando
Mission
- 2 – Rancho Los
Encinos
- 3 – Rancho El
Escorpion
- 4 – Eastern Simi Hills



Eastern Simi Hills 1871 – Overview and Place Names



Eastern Simi Hills 1871 – West Valley Limekiln Sites



The horizontal blue line is today's Roscoe Blvd. The southern half of ex-Mission lands were sold to Lankershim & Van Nuys in 1869; the northern half were sold to McClay & Porter in 1873.

1 **Woolsey Canyon**; El Escorpion de las Salinas, *La Calera*, Pierre Domec and Maria Odón; Bernabel and Marcelina Odón adobes

2 **Dayton Canyon**; house of Jose Mascarel

3 **Bell Canyon**; Rancho El Escorpion granted to Odón; Espiritu his daughter married Miguel Leonis. Odón Chihuya and his wife Eusabia were also at Bell Canyon

The Old West Valley Lime Industry – Summary

- Significant historic limestone processing operations existed at Woolsey, Dayton and Bell canyons.
- It is generally believed that the earliest operations may have been built to supply mortar, plaster, and other lime-based products for the Mission San Fernando complex (around 1806).
- There are several historic records concerning the lime kilns and lime works in both Bell Canyon and Woolsey Canyon, but the kilns at Dayton Canyon, in the center of the prime area for quality limestone bedrock, have never been described in detail.
- This presentation will describe and discuss all three of these operations, both in terms of the important lime industry itself, but also because of the importance of the historic west valley Native American community that operated them.

Buildings at the San Fernando Mission

- 1797 – First Church Building
- 1798 – Granary and weaving room
- 1799 – second Church Building and granary, and a dwelling for the padres
- 1801 – six houses for the guards, apartment for the single girls and women, more granaries and store rooms
- 1804 – 70 adobe houses for the neophytes
- 1806 – The new church is built
- 1808 – A dam built of masonry, and an aqueduct from the dam to the Mission
- 1810 – A new house for the fathers and a new village ranchería consisting of 40 houses.



Mission San Fernando Rey de España circa 1870

Buildings in early Los Angeles

- In 1781, at the site of today's LA Plaza, the Spanish civilian pueblo "El Pueblo de Nuestra Señora la Reina de los Ángeles" was founded.
- As the town grew, pueblos and brick buildings required a supply of lime for mortar and plaster.
- The photo to the right shows an 1870's view of early Los Angeles as seen from the Pico House. In the foreground is the courtyard of the 1781 Spanish Pueblo. To the left of this, a low white adobe, is the bakery of Pierre Domec and his Indian wife, who baked sourdough French bread. (source LAPL Photo Collection)



The Old West Valley Lime Industry – Limestone background

- Limestone is a sedimentary rock composed of the minerals calcite and aragonite (i.e. calcium carbonate), and is largely made of skeletal fragments of marine organisms including corals, diatoms, and shell materials from larger marine organisms.
- Limestones of various sorts make up about 10% of all of the sedimentary rocks on the earth, and they are found in almost all parts of the world.
- Geologically, Chatsworth, as a part of the Pacific plate, was once 5,000 feet below sea level. As the Pacific plate collided with the North American plate at what is today's San Andreas fault, the Pacific Plate rose to today's 1,000 feet above sea level.
- A seam of limestone runs from Bell Canyon to the Woolsey Canyon area. The richest limestone is in between the two sites in Dayton Canyon.

Limekilns (Caleras) in the San Fernando Valley

- In 1795, an exploration party searched for a place to establish a new mission, mid-way between Mission San Gabriel and Mission San Buenaventura. During the search, it was documented that limestone was already being stockpiled and a kiln was being built at the site selected for the future 1797 San Fernando mission.
- Other limekilns close to the mission (such as Limekiln canyon north of today's Tampa) would have also supplied lime.
- The west valley limekilns (Bell, Dayton and Woolsey Canyon) probably date from sometime during the mid-19th century, or perhaps even earlier; they may or may not have supplied processed lime for the Mission San Fernando building complex.

Chatsworth Limekiln

Pierre Domec and other Frenchmen operated limekilns at El Escorpion de las Salinas/La Calera in the 1850s-60s. Lime had a ready market in Los Angeles, for mortar in brick construction, for the process of tanning cowhides, and in sanitation.

The limekiln can be seen today looking east from the intersection of Woolsey Canyon Road and Valley Circle Blvd.



2014 photo of the limekiln, known as La Calera at El Escorpion de las Salinas, in Chatsworth Reservoir. Designated in 1975 as *L.A. Historic Cultural Monument 141*

Limekilns and how they work



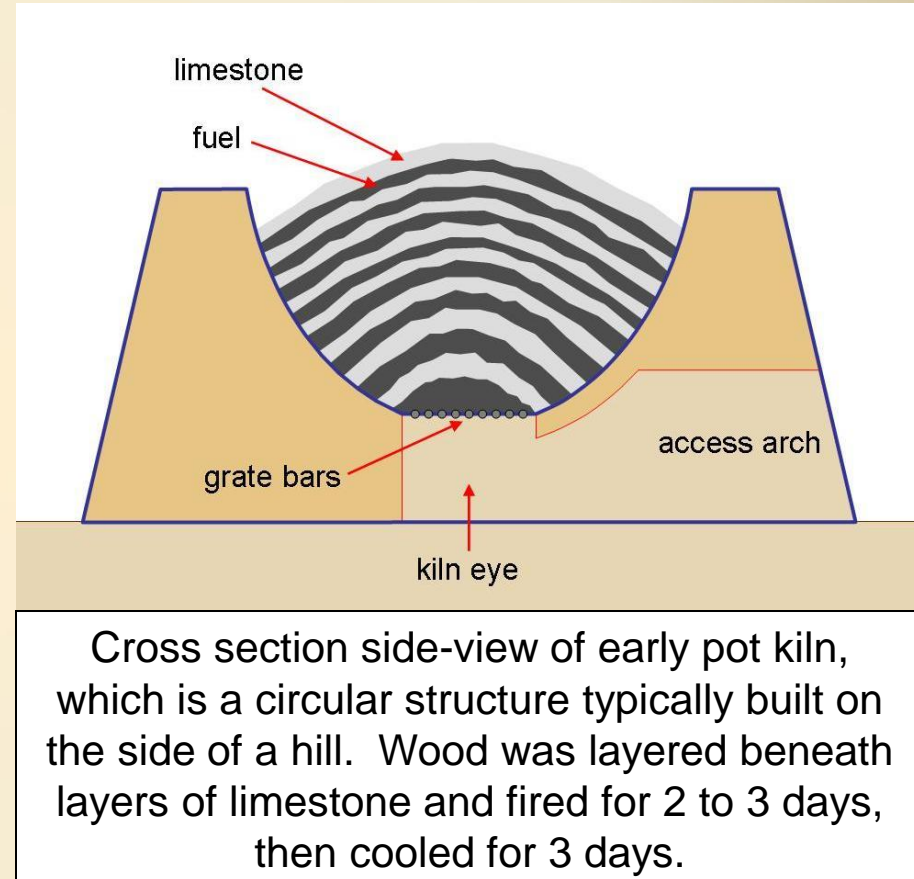
Chatsworth Reservoir limekiln (La Calera)
View of back wall, which is all that remains. This kiln is built with hand-hewn sandstone blocks and is over four feet thick; it is at least 18 feet deep



Access arch of the Bell Canyon limekiln
1987 photo courtesy Leonis Adobe
The bricks in the access arch are not adobe bricks, but fired bricks from the 1850s-60s American Period.

Limekilns and how they work

- Lime is generally made by heating limestone to over 1,640° F. This drives carbon dioxide from the rock, leaving behind processed lime, commonly known as quicklime or burnt lime.
- Pure lime is white, caustic, lighter in weight than the original rock, and reacts violently with water.
- It has many uses, but its principal historic use was for making mortar and plaster. When mixed with water and sand, it will adhere to stone and brick.
- The process of making lime has been known for thousands of years.



Limekilns and how they work

- Historically, quicklime was packed into barrels to protect it from water or exposure to the air until it was used.
- There was a cooperage at El Zapo (the Toad), which is in the foothills about one mile south of Bell Canyon.
- Quicklime was an important resource material used in the building of the Spanish Missions in California.



Access arch of the Bell Canyon limekiln
1987 photo courtesy Leonis Adobe, Bob Edberg in photo

Limekilns and how they work



Natural Limestone on the left; Burnt (processed) quicklime on the right.
Quicklime is ground up to a powder and mixed with water to make plaster or mortar.
Quicklime must be stored in barrels to protect it from moisture.

Examples above are from La Calera at El Escorpion de las Salinas in the Chatsworth Reservoir,
courtesy Chatsworth Historical Society

West Valley Lime Industry

- This 1865 parcel map identifies a house at Dayton Canyon as “House of Mascarel”. Jose Mascarel probably served as the seller/distributor of lime for Pierre Domec in Los Angeles. And Mascarel went to work for Louis Vignes in 1845 as a cooper.
- In the 1850 census, Pierre Domec is also identified as a cooper.
- The map also identifies a 160 acre parcel, just south of Dayton Canyon, to Charles Leboubon, who was Pierre Domec’s partner in the lime business.



Limekiln Findings at Dayton Canyon

- In 2015, grading for the extension of Roscoe Blvd west of Valley Circle Blvd. exposed two pot limekilns and an associated ashfield.
- Photo at right - the radiating pattern of reddish oxidation of the surrounding soil is evidence of extreme heat.



Limekiln Findings at Dayton Canyon

- Photo looking north
- Grading for the extension of Roscoe Blvd west of Valley Circle Blvd.
- Exposed two pot limekilns and a large associated ashfield to the west.



Limekiln Findings at Dayton Canyon

- Photo looking west
- Grading for the extension of Roscoe Blvd west of Valley Circle Blvd.
- Exposed two pot limekilns and a large associated ashfield to the west.
- Note the long ashfield in the distance to the west, identifying other limekilns in the area.



Limekiln Findings at Dayton Canyon



Ashfield to the west of kiln, 100 yards long by 25 yards wide.

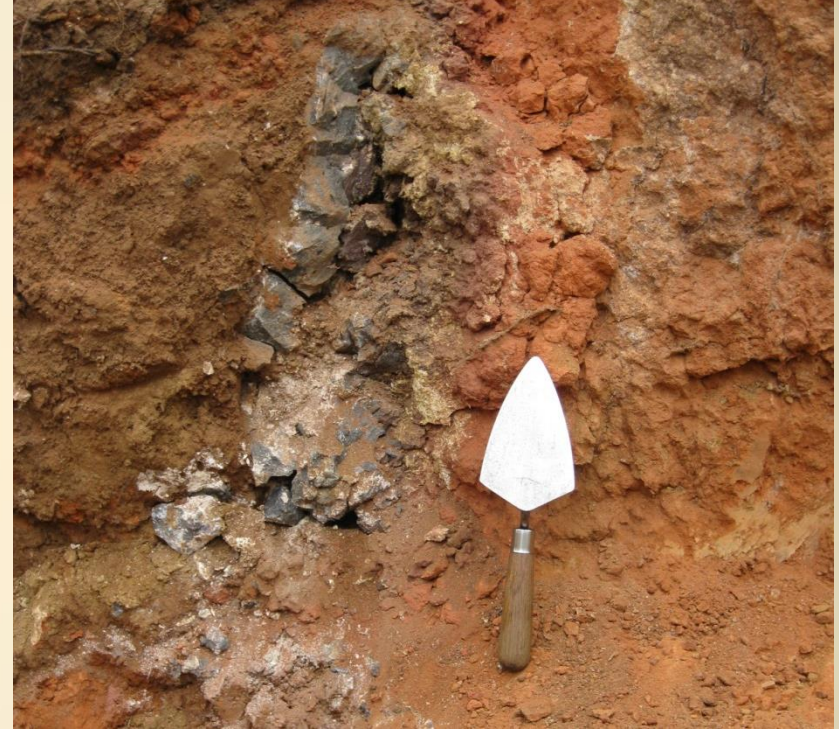


Width of kiln is identified in red circular pattern, 25 feet wide by 20 feet deep

Limekiln Findings at Dayton Canyon



Sideview of exposed Dayton Canyon Limekiln



Vitrified Rock at Dayton Canyon Limekiln

Examples of Vitrified Rock and Oxidation at Bell Canyon and Woolsey Canyon Limekilns

- Vitrified Rock: Heat over 1,800° F causes rocks to melt and fuse together
- Oxidation: Iron Oxides in sand and stone turn red as the result of extreme heat.



Bell Canyon



Woolsey Canyon

Limekilns (Caleras) in the San Fernando Valley

- We also need to consider the logistics of getting the quicklime to where it was needed: "Because lime is much lighter in weight than the rock it is made from, it was easier to haul lime than rock. Consequently, kilns were usually located close to the source of the calcium carbonate" (Perry, et al. 2007:16).
- In the early days of the west valley operations, simple carretas would have been used; at least several of these would have been needed to move any appreciable amount of product. In time, wagons, of increasing size, would have replaced the carretas.



Carreta at Mission La Purisima

Lime Kiln Plaque at Orcutt Park

Ancient Live Oaks And Old Mission Lime
Kilns 1797-1806

These venerable oak trees were topped by
the Franciscan Friars to furnish fuel for the
nearby lime kilns that provided mortar for the
building of the

Mission San Fernando Rey De Espana

These fused rocks were taken for their
preservation from the remains of the ancient
kilns in this vicinity

Dedicated in honor of
William W. Orcutt
October 2, 1948

Historical Society of Southern California and
California Centennials Commission



John Peabody Harrington

- John P. Harrington (1884-1961) was an American linguist and ethnologist and a specialist in the native peoples of California.
- Harrington's exhaustive work earned him a position as a permanent field ethnologist at the Smithsonian, a position he held for 40 years.
- His field collections include information on placenames and thousands of photographs, and he gathered more than 1 million pages of phonetic notations on languages spoken by tribes from Alaska to South America.
- Harrington devoted much of his life to an intense examination of the few surviving Chumash people.
- His parents lived in Santa Barbara, and his brother Robert lived on a small ranch in Simi Valley.



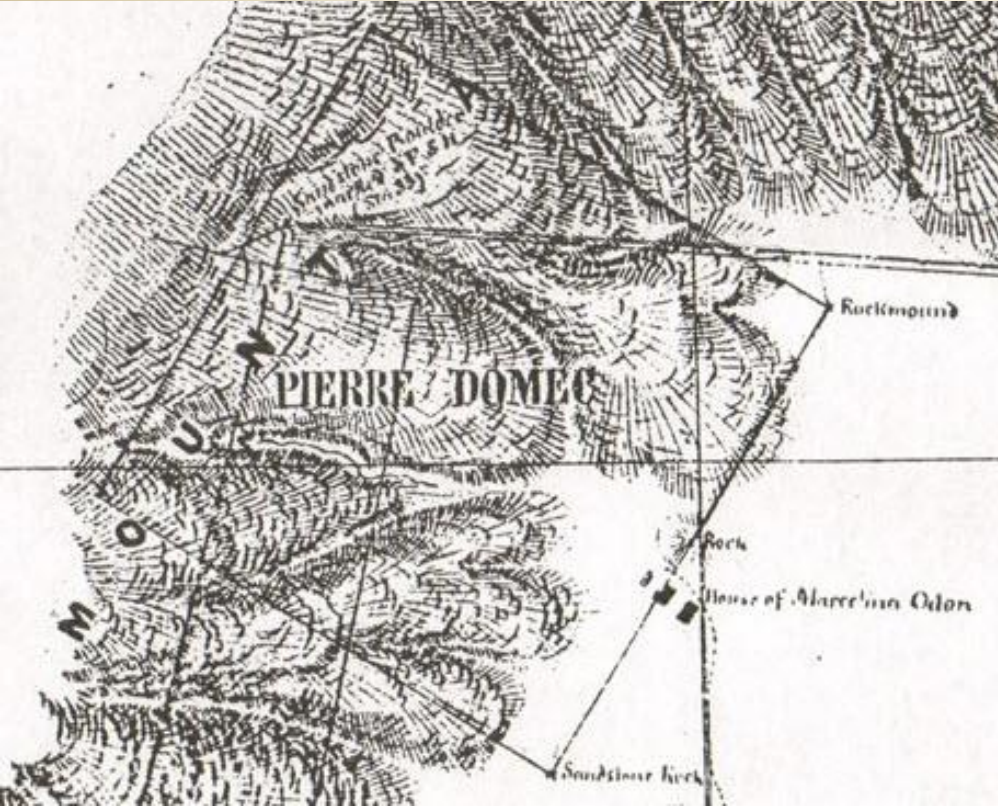
West Valley Lime Industry

In the 1850's and 60's, Frenchmen and Basques were operating the west valley limekilns.

- Pierre Domec was identified as a limeburner in the 1860 census, and his 1861 and 1865 parcel maps included the Limekiln 'La Calera'. By 1871 Pierre Domec had moved his adobe (or had built a new one) slightly north at El Escorpion de las Salinas, today's Chatsworth Lake Manor.
- Domec established his relationship in this community by marrying Maria Dolores, one of the three daughters of Odón Chihuya, who was one of the three Chumash who were the grantees of the Mexican Period El Escorpion land-grant, today's Bell Canyon. Their first daughter, Francesca, was born in 1854.
- Maria Dolores and Pierre lived adjacent to La Calera in four adobes with her brother Bernabel and older sister Marcelina.



Pierre Domec and wife Maria Dolores, from the Leonis Adobe archives



The 1865 formal survey of the 1861 sketch by the Deputy County Surveyor of Los Angeles County, was for 160 acres.

The 1865 survey boundaries overlaid on Google Earth in green. The white outline is La Calera, Domec's limekiln.

Miguel Leonis and Espiritu

- Miguel Leonis, a 35-year old French Basque, became a resident of Rancho El Escorpion (Bell Canyon) in 1859. Leonis raised sheep, and he was one of many French and French Basques who came to California in the 1850s to work in that occupation. The three owners of Rancho El Escorpion allowed Leonis to use their land for his stock.
- In 1859 he married Espiritu, Odón Chihuya's third daughter, and in 1860 their daughter Marcelina was born.
- Leonis built several adobe houses on the north side of Bell Canyon Creek. His countrymen from France occupied those houses when they worked the limestone quarries.
- In the 1870's their home was the Leonis Adobe in Calabasas.



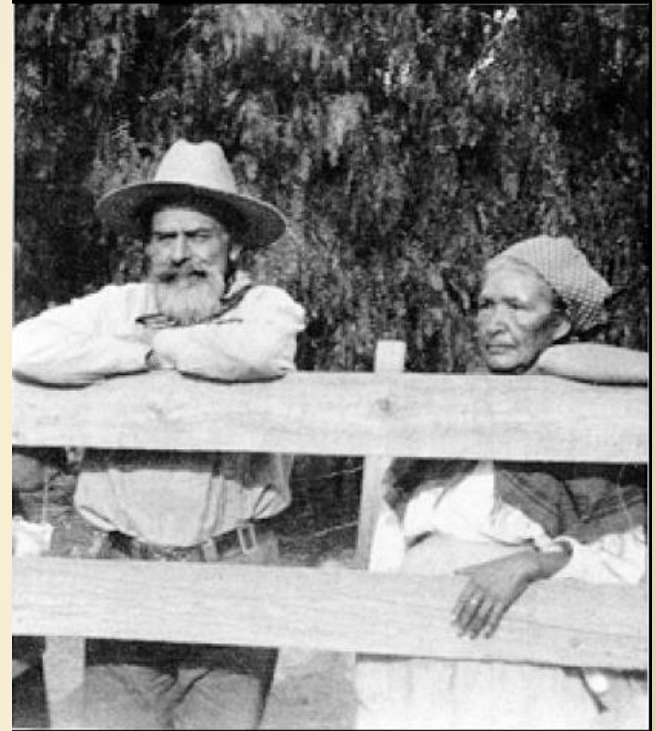
Espiritu Chihuya



Miguel Leonis

John P. Harrington's visit 100 years ago

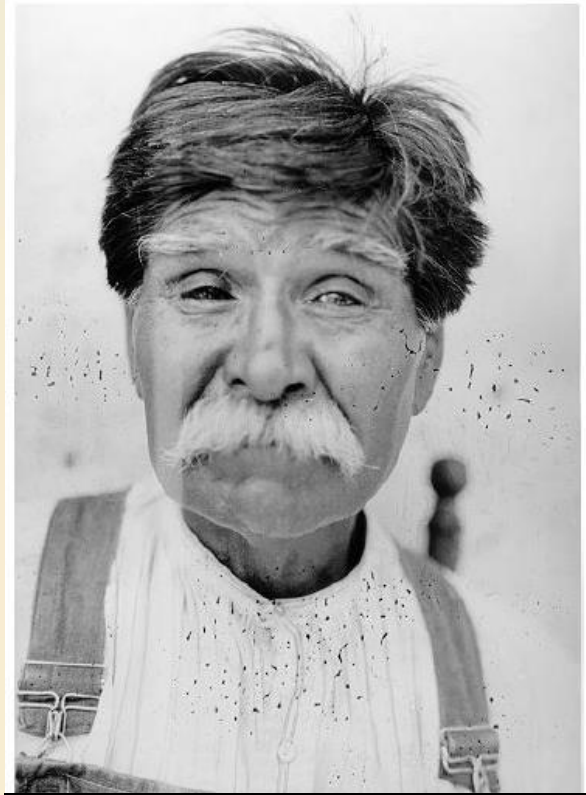
- In 1917 John P. Harrington visited the area and interviewed Espiritu's son Juan Menéndez (1857-1923), and his wife Juana, and they visited El Escorpion de las Salinas.
- Notes from Harrington, related to La Calera, include -
 - "Lime pits of the Mission were there" (106-117:9:3)
 - "Lime from La Calera was used in Los Angeles even after the Santa Cruz lime began to be brought in" (106-117:9:5)
 - "Finally the Tehachapi lime was granted such low rates by the railroads that all competition was precluded" (106-117:9:6)



Juan and Juana Menéndez, Calabasas, 1917
*JP Harrington Collection, Santa Barbara
Museum of Natural History*

John P. Harrington's visit 100 years ago

- Harrington also interviewed Fernando Sétimo Moraga (aka Sétimo Moraga López) (1844-1930), and they also visited El Escorpion de las Salinas.
- Sétimo was a key consultant, providing placenames for west valley rancherías and many other places.



Sétimo Moraga López in 1916
*Harrington Papers, National
Anthropological Archives, Smithsonian
Institution, 91-31239.*

José Juan Olivas in 1916 at the ruins of the old adobe where his “aunts”, the daughters of Odón Chihuya, lived, at El Escorpion de las Salinas.

Harrington Papers, National Anthropological Archives, Smithsonian Institution, 91-31231.



“The Final Chapter” on West Valley Quarrying Activities- Bell Canyon Limestone Quarry

In 1939 to 1941, the limestone hilltop at the mouth of Bell Canyon was used to face the Sepulveda Dam Basin.



Sources/Acknowledgements

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