

LIME KILNS – RINCON DISTRICT

Lime kilns have been used for centuries to convert limestone (Calcium Carbonate) into lime, or as it was often called, quicklime (Calcium Oxide). Lime was used for many purposes. Some of these purposes were as a mortar in building, for lime-washing walls to make them waterproof, for use on agricultural land to break up clay soils and for removing the hair from hides in leather-making. The process for converting limestone into quicklime is very simple. Kilns were constructed in the area where limestone was readily available. The circular kilns were 6 to 10 feet in diameter, about 7 feet high and were constructed of adobe or hard rocks that would not burn. The limestone was gathered and brought to the kiln and wood was also cut from the surrounding area. The limestone and wood were placed in the kiln and the fuel ignited. It took two days and two nights (or four days and four nights depending on the information source) to make the lime. The kilns had to be heated to a temperature of around 1800 degrees F to convert the limestone into quicklime. The kilns required constant attention as ashes had to be raked out and wood added every two to three hours during the conversion period. The preferred fuel was either green Palo Verde or green mesquite wood. Dry wood was considered to be a poor fuel.

Although the remains of only two kilns are visible today, as many as eight kilns were said to have existed in the Rincon District of Saguaro National Park. According to a 1969 interview with Joe Moreno, Joe said he remembers that there were seven or eight kilns located along the wash. Joe had helped his father, Carmen Moreno, who had operated one of the kilns in the 1914 to 1917 time frame. Carmen sold lime to Tucson building contractors for \$10.00 a ton. Lime from his kiln was also used in the construction of the rock wall around the University of Arizona.



Remains of Saguaro East Lime Kiln
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Some sources indicate that the Rincon Kilns were first operated in the 1870s. It is thought that Manuel Escalante and Angel Denites operated the kilns in 1873 to supply lime during the construction of Fort Lowell. However, a superintendent of Fort Lowell State Park has stated that his search of Fort Lowell's records indicate that lime was not used at the post until 1882. Frank Escalante and his brother used one of the kilns in the Rincon District to make lime in the 1906 to 1908 time period.

The first written statements concerning lime kilns appears in 1896 when the Tucson Citizen reported that a Juan Romero had died while working at his kiln. In September

1897, Philip Contzen found an “old lime kiln” while surveying subdivision lines near the area where the remnants of the two kilns in Saguaro East National Park are located today.

Since the early history of the kilns has not been documented, one can only guess as to when they were constructed. Their closure though is a matter of public record. The last two men to use the kilns were Ygnacio Ramirez and Ramon Maldonado. They were forced to close the kilns by court order in 1920 because local ranchers had complained that the lime kiln operation was using so many trees that their cattle were being deprived of the bean pods they depended upon for feed.

Summary prepared in 2006 by T. Johnson from various sources. Lime Kiln photo by T. Johnson

Additional Material: GVHC Library File 52