

# Lime Kiln Investigation

## Harrison-Crawford State Forest



### Site Information

The lime industry developed along the limestone cliffs of southern Indiana during the 19th century, although the process of transforming limestone to lime dates back more than 2,000 years. Limestone was burned in kilns, forcing the carbon dioxide from the rock and creating a powdered or lumpy substance called quicklime. The lime was spread on agricultural fields or mixed with other ingredients to form mortar, plaster, whitewash, or other commercial materials.

Several lime kilns have been identified within Harrison-Crawford State Forest in southern Indiana. These features represent pit kilns, into which alternating layers of wood and stone would be piled and burned. Pit kilns were typically used to create a lower quality lime to spread on agricultural fields.





## Archaeological Investigation

A survey was conducted in 2004 to record recently identified lime kilns within Harrison-Crawford. Interviews with local residents and field surveys were conducted in an attempt to locate these features. As a result of this investigation, three separate areas were documented containing approximately two dozen kilns.

Kilns were typically discovered grouped together along the side slope of a ridgeline below the limestone cliffs, where the quarries for the kilns were located. Groupings generally consisted of six or more kilns in a rough linear formation.

This study continues to grow as previously undocumented kilns are identified and added to the inventory. Future studies of the lime industry within the State Forest are planned in hopes of identifying the specific dates the kilns were in operation as well as an enhanced comprehensive understanding of the lime industry during the 1800s.





## Artifacts and Results

Several of the sites retained cut limestone blocks, some of which are still stacked where they were left 100 years ago, and hydrated quicklime within the kiln structure. Slag, a by-product from the burning process, was also identified during the survey of the lime kilns.

Studies of these items can help to identify the stage in the burning process each kiln was in at the time that the site(s) was abandoned. Further investigations may also help to reveal more detailed information about the lime industry.

Over three dozen lime kilns have been identified within Harrison-Crawford. Investigations of these sites and similar archaeological sites in the region indicate that the kilns were in operation during the mid-1800s to early 1900s. By the turn of the century, the lime industry had declined in part due to advances in artificial cement, such as Portland cement, which is stronger and harder than mortar created from quicklime.

### Case Study Credits

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