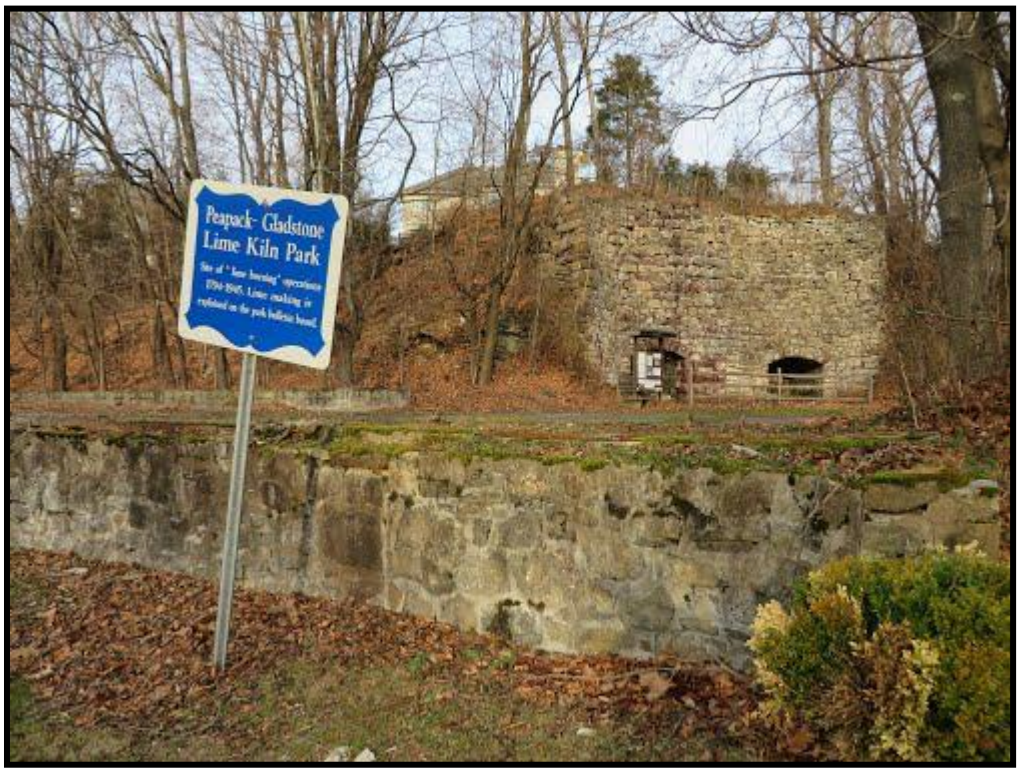
PEAPACK LIME KILN
Archaeological Testing



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Introduction:

Limited archaeological testing consisting of seven shovel test pits was carried out at the Peapack Lime Kiln, a 19th century double kiln, located at 122 Main Street in Peapack, Somerset, County, New Jersey (Plate 1, 2). The goal of this testing was to determine the historic ground surface in the area immediately in front of the kiln. Testing revealed that between .4 and .7 feet below the current ground surface a pavement, likely stone, covered by a thin layer of lime is present. In two tests, STP #1 and STP #3 the stratigraphy was different: STP #1 had a layer of cut stone overlaid by a thick layer of lime, while STP #3 revealed what appears to be a natural subsoil beneath a layer of lime. No artifacts were noted in any of the tests.

Methodology:

The façade of the kilns was sketched then three lines of shovel test pits on a ten-foot grid were laid out in front of the kilns and mapped on graph paper. (Figure 1) Testing was performed with shovel and sharpshooter. All soils were screened through ¼" wire mesh. Stratigraphic profiles were recorded on shovel test forms and Munsell Soil colors and soil textures were recorded. Photographs were taken of each of the shovel test pits.

Background:

Extensive historical research by Dennis Bertland and Associates revealed that the kilns were constructed c. 1860 and remained in operation until c. 1934. The kilns were initially owned by Moses Craig and later by his descendants. Burnt lime revolutionized and revived northern New Jersey's agriculture in the 19th century. However, by the late 19th century pulverized lime had come to replace burnt lime for agricultural uses. Indeed, by the 1920s, the Peapack Lime Company was one of only firms still commercially producing lime fertilizer in New Jersey, and in 1929 the state's "entire reported output of lime … came from the plant of the Peapack Limestone Products Company at Peapack [which operated] two stone kilns of the discontinuous or 'field' type'.[1] The kilns remained in use at least until 1934, but were discontinued sometime thereafter, as the firm switched to pulverized lime and other products. Local residents still remember buying lime from the storehouse by the kilns in the 1950s, but the operation ceased in the 1960s and the quarry was abandoned. A historic aerial photograph dated 1953 appears to show the storage buildings of the firm on Main Street as well as a building surrounding the lime kilns.

[1] Meredith E. Johnson, comp., *The Mineral Industry of New Jersey for 1929*. Trenton: Division of Geology and Topography, 1931, p. 23.

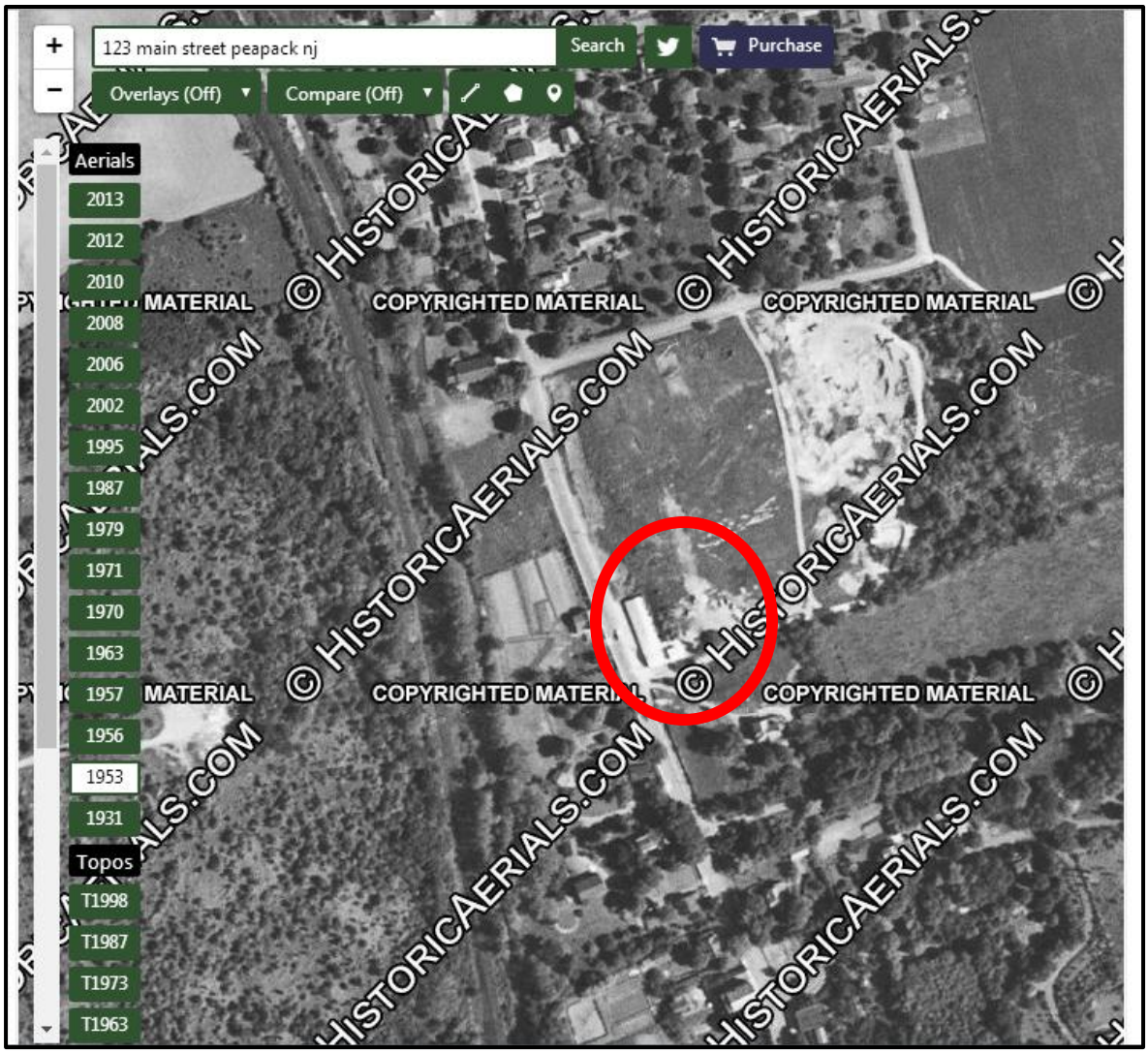

Plate 1: Historic aerial showing the site of the Peapack Lime Company, c. 1953. Although a 1931 aerial also survives the site is obscured in that image. The red circle indicates the site location.

Fieldwork:

Seven shovel tests were excavated until they reached impassable stone/pavement or were clearly in subsoil. Tests measured roughly 18 inches in diameter. Shovel Test Pit #1 showed three distinct strata: a modern O or overburden horizon consisting of organic rich soil underlain by a layer or burnt lime, overlaying a layer of cut stone. Excavation stopped at this layer. Shovel Test Pit #2. Shovel Test Pit #3, showed the typical O horizon, underlain by a layer of lime, followed by a deposit of broken granite rock and clayey soil. This is believed to be the natural substratum.

Shovel Test Pits 4-7 showed a very similar stratigraphic profile consisting of an O horizon, of varying thickness, overlying a thin layer of lime on topic of a very compact floor that may be either stone or concrete. This surface, was almost certainly the 20th work surface in front of the kilns and could have supported large quantities of lime, which given the omnipresent lime deposits were almost certainly there, and also wheelbarrows, wagons, and trucks used to move the lime.

Plate 2: Façade of the Peapack Lime Kilns with pin flags in foreground marking shovel test locations.

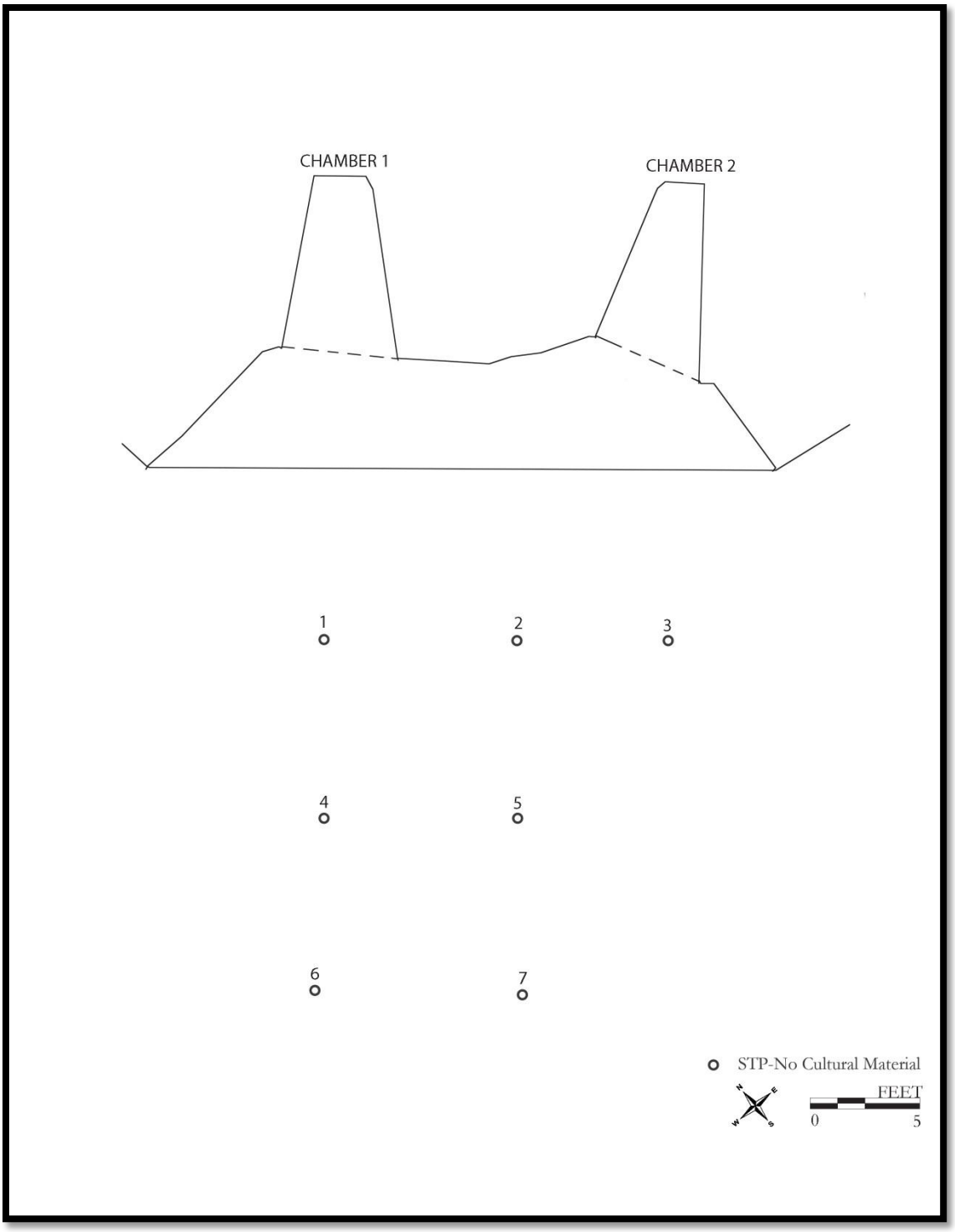

Figure 1: Plan view showing Shovel Test Pit locations.

Plate 3: Shovel Test #1 showing cut stone blocks, perhaps the edge of a building that enclosed the kiln, or a floor.

Plate 4: Shovel Test #3 showing topsoil, underlain by a thin layer of lime-rich soil, and what may be the natural subsoil.

Plate 5: Shovel Test 3 revealed a similar profile to Shovel Test 2.

Plate 6: Shovel test #4 showing lime covered floor below topsoil.

Plate 7: Shovel test #5 showing lime covered floor beneath topsoil.

Plate 8: Shovel test #6 showing lime covered floor beneath topsoil.

Plate 9: Shovel test #7 showing lime covered floor beneath topsoil.

Conclusions:

Archaeological fieldwork revealed a paved surface covering much of the area in front of the kilns. What may be a fragmentary stone foundation was also noted in the first shovel test pit. The paved surface may be from a storage building located on the site. The paved surface was present at roughly .6 feet below the current ground surface. No artifacts were noted during testing; however, Shovel Test Pit #3 did contain a fragment of coal, possibly employed in firing the lime, while fragments of cinder block were noted in Shovel Test Pits 2 and 3, possibly from the now demolished building. Testing did not penetrate the paved floor and other than the 20th-century cinder block no temporally diagnostic artifacts were noted.

Shovel Test Profiles:

Test#	Depth	Stratum	Munsell	Artifacts
STP 1				
	0-.4’	O	10 YR 2/2 v. dk. Brown silty loam	NCM
	.4-.6’	Fill 1	10 YR 2/2 v. dk. Brown silty loam w. mortar	NCM
	Stopped by rock—possible foundation.			
STP 2	0-.6’	O	10 YR 2.2 v. dk. Brown silty loam	NCM
	.6-.8’	Fill 1	10 YR 8/1 white, lime	NCM
	.8-1.3’	B	7.5 YR 5/6 strong brown sandy loam w. rock	NCM
	Stopped by rock			
STP 3	0-.4’	O	10 YR 2/2 v. dk. brown silty loam	NCM
	.4-.6’	Fill	10 YR 8/1 white, lime	NCM
	Stopped by rock			
STP 4	0-.6’	O	10 YR 2/2 v. dk. brown silty loam	NCM
	Stopped by lime covered floor			
STP 5	0-.7’	O	10 YR 2/2 v. dk. brown silty loam	NCM
	Stopped by lime covered floor			
STP 6	0-.5’	O	10 YR 2/2 v. dk. brown silty loam	NCM
	Stopped by lime covered floor			
STP 7	0-.2’	O	10 YR 2/2 v. dk. brown silty loam	NCM
	.2-.5’	Fill 1	10 YR 2/2 v. dk. brown silty loam with rock	NCM
	.5-.8’	Fill 2	10 YR 2/2 v. dk. brown silty loam with lime	NCM
	Stopped by floor			