

ABSTRACT

Bricks can be a valuable research tool in investigating change at historic industrial sites. An analysis of bricks was conducted as part of archaeological investigations at the Lawrence Cement Company's manufacturing plant in Rosendale, New York, which was operated between 1853 and 1906. A total of ten different marked bricks were encountered at various locations throughout the manufacturing complex. Research conducted on specific brick manufacturers suggests that much of the common brick was made nearby, most notably in Kingston and Haverstraw, while fire brick was imported from other states. Two of the brick marks identified as part of the study had not been previously recorded in published surveys of the literature, although differing lines of evidence suggest possible manufacturers for each of these examples. The study also provided important information about site chronology and plant management and broadened our understanding of the Hudson Valley brick industry.

INTRODUCTION

One of the primary focus areas of the brick study was the examination of bricks from within the kiln walls. These walls often show breaks in the stone masonry representing successive construction episodes, which are usually datable using fire insurance maps.

Ten different marked bricks were encountered (Table 1). Results indicated that bricks from different manufacturers were correlated with specific kiln wall segments and consequently with distinct construction episodes. However, most of the brick marks encountered were in use for several decades, suggesting that their variation reflects choices in cost and availability rather than as chronological indicators.



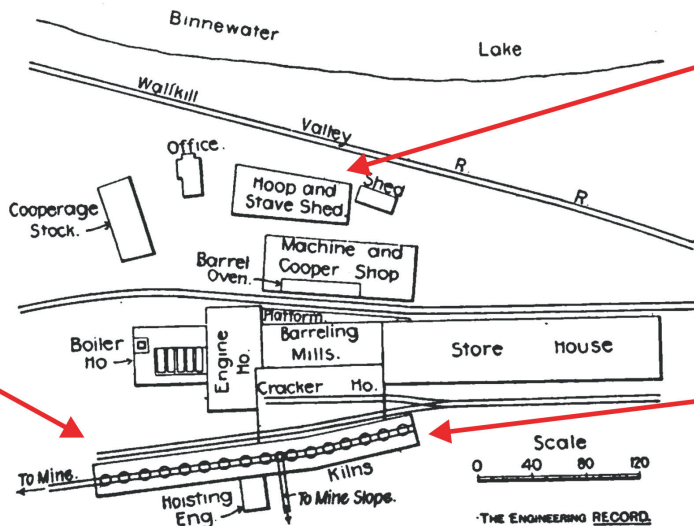
FIGURE 1. KILN WALL OPERATED BY THE LAWRENCE CEMENT COMPANY WORKS.

Table 1. Marked bricks identified at the Lawrence Cement Company kilns

Brand	Manufacturer	Occurrence at Site	Place Manufactured	Dates	Source
B. BROS.	Brigham Bros.	Kiln Wall 2/Kilns 2-6	Kingston, NY	no date	de Noyelles 1982 p. 223
BRIGHAM	Henry Brigham/Brigham Bros.	Kiln Wall 1/Kilns 1, 7 and 8	Kingston, NY	1899	de Noyelles 1982 p. 225
RIDGE	General Factories Co.	Kiln Wall 3/Kilns 1-3	Pennsylvania	1930-1942	Gurcke 1987 p. 288
MUNRO	Harbison-Walker Refractories Co.	Hoisting/Engine Shed	Pennsylvania	1921-1942	Gurcke 1987 p. 270
STAPLES	Alva S. Staples	Kiln Wall 1/Kiln 6	East Kingston, NY	1899	de Noyelles 1982 p. 262
HUTTON	Hutton Brick Co.	Hoop/Stave Shed	East Kingston, NY	1899	de Noyelles 1982 p. 242
PHOENIX # 1	Harbison-Walker Refractories Co.	Kiln Wall 1/Kilns 2 and 8	Pennsylvania or NJ	1921	Gurcke 1987 p. 280
TERRY BROS.	Terry Bros	Kiln Wall 1/Kiln 4	Steep Rock, NY	1910	de Noyelles 1982 p. 263
1976	Unknown/prob Hutton	Hoop/Stave Shed	unknown	no date	unknown
C - TYRONE	Harbison-Walker Refractories Co.	Kiln Wall 2/Kilns 1-6	Pennsylvania	1930-1931	Gurcke 1987 p. 222

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A STUDY OF BRICKS FROM THE LAWRENCE CEMENT COMPANY MANUFACTURING PLANT, ROSENDALE, NY



This map of the Lawrence Cement Company works was originally published in *The cement industry; descriptions of portland and natural cement plants in the United States and Europe* (1900) published by the Engineering Record, New York.

BICENTENNIAL BRICK?



FIGURE 6. BRICK MARKED "1976."

This waster brick marked "1976" was found in a pile of bricks in the hoop and stave shed, one of the few buildings from the cement works to survive. Waster bricks are malformed or misfired bricks that are not suitable for sale. This brick is likely not associated with the cement works but rather with the operation of a resort on the property that started in the 1950s (Werner 2006).

A survey of the pile indicated that while the vast majority bricks were marked 1976, two bricks were also marked Hutton, suggesting that the 1976 bricks were made at the Hutton brick works in Kingston. The Hutton brick company began in 1858 and continued the manufacture of bricks under various reorganizations until 1965, when the company was sold to the Jova Mfg. Co. The plant operated intermittently and was subsequently sold to Terry Staples in 1970 before closing their operations in 1980.

The Hutton Company was one of the few brickyards still in operation in the 1970s. If the "1976" brick was made during the Staples period of ownership (1970-1980), it would suggest that they still had a supply of "Hutton" bricks on hand. However, it also seems likely that Staples was continuing to manufacture bricks under the Hutton name. The creation of accidental waster bricks like these were to be avoided by manufacturers, and this brick might reflect retooling or other manufacturing issues.

FIRE BRICKS

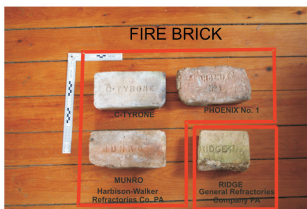


FIGURE 7. FIRE BRICKS FROM THE LAWRENCE CEMENT COMPANY WORKS.

Results further indicated what while marked common bricks show a strong correlation with regard to the individual kiln walls, fire brick was comparatively homogeneous. Also, little variation was noted within the kiln walls, specifically with respect to the breaks in the stonework that probably indicate later construction episodes. However, this lack of variation between kilns thought to have been constructed at different times is not too surprising, since the fire brick lining of the interior kiln walls had to be replaced every few years after near continuous use. Thus, while the kilns themselves might have been constructed at different times between the 1860s and when plants ceased operations in 1926, the fire bricks lining the kilns themselves all date to just before the closure, at the time when the kilns were operated by the Consolidated Rosendale Cement Company.

THE BRIGHAM BROTHERS BRICK COMPANY



FIGURE 2. BRICK MARKED "BRIGHAM."

Some of the local brick manufacturers represented in the study had more direct ties to the Rosendale cement industry. Bricks marked "Brigham" were made by Henry R. Brigham, who was an Agent for A.J. Snyder and Son's Crescent Brand Rosendale Cement. In 1858 his father (Henry Sr.) founded the Rosendale and Kingston Cement Company, which was later known as the Hudson River Cement Company. Henry worked for his father's cement company and later formed the Brigham Brothers Brick Company with his brother William (Moyer 2010).

Table 2. Brick Production Figures for 1893		
Yard	Manufactured	On Hand
Wm. Hutton	13,750,000	6,000,000
Terry Brothers	13,000,000	3,540,000
T. Fredericks	3,000,000	2,000,000
R. Mains	6,000,000	2,225,000
A. Staples	14,800,000	6,000,000
C.A. Schultz	9,000,000	1,500,000
Brigham Brothers	5,000,000	1,000,000
David Manchester	5,000,000	2,000,000
Streeter & Hendricks	6,250,000	2,150,000
R. & C. M. Streeter	2,350,000	500,000
George Washburn, Jr.	5,500,000	3,000,000
Alonzo Rose	3,000,000	1,000,000
Jacob Kline	4,200,000	1,700,000
S.D. Coykendall	7,000,000	2,000,000
Published in the <i>Kingston Argus</i> Jan. 3rd, 1894		

Together, they manufactured bricks from works next to the Hudson River Cement Company in East Kingston. Later, around 1891, H.R. Brigham became general agent for A.J. Snyder and Sons. After the death of A.J. Snyder in 1902 he also became the superintendent of the Snyder Cement Works in Lawrenceville.

It is interesting that bricks from a competitor's company would be found at the factory remains along Williams Lake. We know that competition between cement companies was sometimes fierce as they would often vie for the same large construction contracts. The reason for the use of these bricks is likely economic, as they were probably cheaper than bricks that would have to be transported from Kingston. An examination of brick production figures for 1893 show that the Brigham Brothers' brickmaking operation was considerably smaller than most of the brick companies represented at the kiln sites (Table 2). The Brigham Brothers manufactured approximately 5 million bricks that year, compared with 14.8 million produced by Staples, 13.75 million by Hutton, and 13 million by Terry Brothers. It seems likely that Brigham kept a quantity of brick on hand in Rosendale, and that it was more cost effective to buy locally from a competitor.

THE MYSTERY OF THE "B. BROS" BRICKS

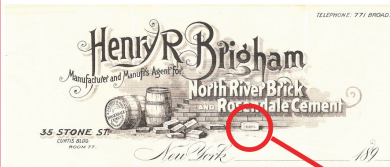


FIGURE 3. TRADE CARD OF HENRY BRIGHAM.

Some of the bricks we encountered were marked "B Bros" (Figure 3). The only manufacturer in our directories using this mark was the Bennett Brothers of Haverstraw. This seemed unlikely since few bricks from Haverstraw are found in the area. The examination of a trade card of Henry Brigham solved the mystery, as it appears that the Brigham brothers manufactured bricks using both the "Brigham" and "B.Bros" brands (Figures 4 and 5; trade card image courtesy Century House Historical Society).



FIGURE 4. BRICK MARKED "B BROS."



FIGURE 5. DETAIL OF TRADE CARD SHOWING "B BROS" BRICKS.

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REFERENCES

De Noyelles, Daniel, 1982 *Within These Gates*. Privately Published, Theills, NY.

Gurke, Karl, 1987 *Bricks and Brickmaking: A Guide for Historical Archaeology*. University of Idaho Press, Moscow.

Moyer, David, 2010 Bricks from the Lawrence Cement Company and the F.O. Norton Cement Works. *Natural News* 12(1): 4-5.

Werner, Dietrich, 2006 *Fourth and Fifth Binnewater Lakes*. Century House Historical Society, Rosendale, NY.



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