

**United States Department of the Interior  
 Heritage Conservation and Recreation Service**
**National Register of Historic Places  
 Inventory—Nomination Form**

 See instructions in *How to Complete National Register Forms*  
 Type all entries—complete applicable sections

**1. Name**

historic

and/or common Lime Kilns of Waukesha County Thematic Group

**2. Location**

street &amp; number Various - See Item 7

not for publication

city, town Various - See Item 7

vicinity of

congressional district 9

state Wisconsin

code 55

county Waukesha

code 133

**3. Classification**

Category	Ownership	Status	Present Use
<input type="checkbox"/> district	<input type="checkbox"/> public	<input type="checkbox"/> occupied	<input type="checkbox"/> agriculture
<input type="checkbox"/> building(s)	<input type="checkbox"/> private	<input checked="" type="checkbox"/> unoccupied	<input type="checkbox"/> commercial
<input checked="" type="checkbox"/> structure	<input checked="" type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational
<input type="checkbox"/> site	<b>Public Acquisition</b>	<b>Accessible</b>	<input type="checkbox"/> entertainment
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input type="checkbox"/> yes: restricted	<input type="checkbox"/> government
Thematic group	<input checked="" type="checkbox"/> being considered	<input type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial
	(Sussex kiln)	<input type="checkbox"/> no	<input type="checkbox"/> military
			<input checked="" type="checkbox"/> other: abandoned

**4. Owner of Property**

name Various - See Item 7

street &amp; number

city, town

vicinity of

state

**5. Location of Legal Description**

courthouse, registry of deeds, etc. Waukesha County Courthouse

street &amp; number 515 W. Moreland Blvd.

city, town Waukesha

state Wisconsin 53186

**6. Representation in Existing Surveys**

 title Wisconsin Inventory of Historic Places has this property been determined eligible? ☐ yes ☒ no

date 1979

☐ federal ☒ state ☐ county ☐ local

depository for survey records State Historical Society of Wisconsin

city, town 816 State Street, Madison

state Wisconsin 53706

## 7. Description

<b>Condition</b>		<b>Check one</b>	<b>Check one</b>
<input type="checkbox"/> excellent	<input checked="" type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site
<input type="checkbox"/> good	<input checked="" type="checkbox"/> ruins	<input type="checkbox"/> altered	<input type="checkbox"/> moved      date _____
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed		

### **Describe the present and original (if known) physical appearance**

#### Introduction

The lime kilns of Waukesha County thematic nomination includes largely extant examples of a once thriving industry in the southeastern part of Wisconsin. Kilns, the most interesting representations of the nineteenth century lime industry, are a diminishing cultural/industrial resource in Wisconsin. Although several limestone quarries still distinguish the landscape of Waukesha County, only a handful of the scores of nineteenth century lime kilns exist. The ten extant kilns in the county are: the William Johnston Lime Kiln between Saylesville and Genesee (1870); five Hadfield Co. Lime Kilns near the city of Waukesha (approximately 1873); three Garwin Mace Lime Kilns in the village of Menomonee Falls (1890); and the Sussex Lime Kiln (c. 1890). These ten lime kilns, although in varying states of deterioration, still illustrate the geographic extent of the lime industry in the county and their relationship with quarries, communities, and transportation systems.

#### Lime Production

Calcination, the process of burning limestone to form lime, was discovered by primitive people, ostensibly upon noting the effects of fire on limestone hearths. The Greeks covered their temples with a lime stucco as early as 500 B.C. The Romans used lime plaster and, during Classical Rome, developed an hydraulic mortar for use in the aqueducts.<sup>2</sup> The basic process of calcination is to heat limestone (calcium carbonate,  $\text{CaCO}_3$ ) to about 900 degrees F. to dissociate the calcium oxide ( $\text{CaO}$ ) from the carbon dioxide ( $\text{CO}_2$ ). The calcium oxide, or lime, could then be mixed with sand and water to make mortar. Some limestones, such as the Wisconsin varieties, contain varying degrees of magnesium carbonate ( $\text{MgCO}_3$ ) and the resulting lime is highly magnesian and softer in character than the calcium limes.

Calcination occurs in furnaces called lime kilns. The earliest lime kilns are thought to have been mere piles of limestone and wood, which were burned together. The kilns built by early settlers and individual homesteaders in eighteenth and nineteenth century America were similarly crude. Commercial lime burners in the last century employed a few basic kiln configurations, chief among them the chimney-like vertical shaft kiln. Farmers often used a kiln built into a hillside. Variations on the basic kiln form were determined by the types of limestone and fuel available; proximity to construction sites, quarries and transportation systems; and desired productivity of the operation and quality of the lime. Farmers, masons and commercial lime manufacturers alike designed and built their own kilns with these factors in mind.

Vertical shaft kilns commonly were used commercially and could be loaded, burned and drawn continuously. Generally, chunks of limestone were transported from the quarry to the top of the kiln by a narrow-gauge railroad track on inclined skids; where several lime kilns stood in a line, a length of track ran across the tops of the ensemble. Firewood was loaded into fireboxes in the walls of the kiln and the limestone dropped into the top of the kiln. The loaded kiln was then ignited and "burned." The duration of this burning depended on several factors (size of kiln and load, specific design of kiln, manpower) and could last from four to 24 hours. The finished lime was drawn from holes in the base of the kiln, stored dry or hydrated, and bagged and shipped. Lime kilns typically were lined with firebrick or other refractory material. Fire grates, fire doors and miscellaneous fittings were of cast iron; wooden shed structures sometimes connected the kilns or served to protect the workers from the weather.

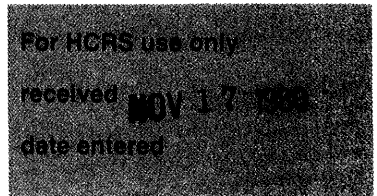
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Each of the ten extant lime kilns was preceded by other kilns on or near their sites and the origins of most of the companies by which the kilns were built date to the 1850s and 1860s. All are constructed of locally quarried limestone and all, with the exception of the Johnston kiln, are vertical shaft kilns. The Johnston kiln is a hillside kiln. The ten are adjacent to quarries and were served by commercial railroads and spur lines. The railroads linked the quarries and kilns with each other and with the larger urban markets in Milwaukee, Chicago and the Northeast. Among the railroad lines that traversed Waukesha County were the Prairie du Chien and La Crosse divisions of the Milwaukee and St. Paul; the Wisconsin Central Line; Milwaukee, Menomonee Falls and Western; Chicago and Northwestern; Chicago, Milwaukee and St. Paul and Pacific; and the Minneapolis, St. Paul and Sault Ste. Marie ("Soo Line").

Survey Methodology

The Waukesha County lime kilns were identified in two survey efforts. In the summer of 1979 the State Historical Society of Wisconsin conducted a portion of the Wisconsin Inventory of Historic Places in Waukesha County. Several kilns were identified in that effort and were brought to the attention of Sue Radmer, a graduate student employed by the State Historical Society for the summer. Sue selected the topic of Waukesha County lime kilns for her master's thesis for her degree in historic preservation at Columbia University.

In the course of her research, Radmer discovered that a historical survey of lime kilns had been conducted by Jean Penn Loerke, curator of the Waukesha County Historical Museum. Loerke's identification of kilns was largely based on a study of 19th century plat maps. Radmer was also aided in her study by Fred Keller, the Sussex Village Historian who has studied the lime kilns in the Menomonee Falls and Sussex area. This nomination is a product of the survey efforts and Radmer's thesis, "Lime Production in Nineteenth Century America: Waukesha County, Wisconsin."

Descriptions of Individual Lime KilnsHADFIELD CO. LIME KILNS (1873) *NH*  
*Waukesha Co. Wis.*

Location: Hwy. 164 and Blue Mound Road  
Waukesha, WI 53186

Owner: Waukesha Lime and Stone Company  
Hwy. 164  
Waukesha, WI 53186

Perhaps the most prominent limestone quarrying and lime producer in Waukesha County was the Hadfield Company. Joseph Hadfield began quarrying limestone in the city of Waukesha in 1868.<sup>1</sup> The Chicago Fire in 1871 and subsequent rebuilding of that city proved to be a boon for Waukesha County lime producers, and the early 1870s were the peak years for the Hadfield Co. By 1873, the Hadfield Co. had quarries and lime kilns near the cities of Waukesha and Pewaukee. (Pewaukee was an important center of lime production in the County, but none of the many Pewaukee kilns exist.) As of 1880, "all of the quarries at Waukesha,

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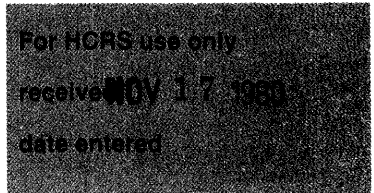
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now being worked, belong to Messrs. Hadfield."<sup>2</sup> The firm finally incorporated in 1886 and in that year established its own railroad, the Milwaukee, Menomonee Falls and Western, between Hadfield quarries in the Sussex and Menomonee Falls areas. The firm established the community of Hadfield in sections 17-20 of the town of Menomonee, formerly the village of Lannon, in 1890. The railroad, company town and some unsuccessful real estate investments brought about the demise of the Hadfield Co., which in 1891 fell into receivership.<sup>3</sup>

Evidence of the once-thriving Hadfield lime business exists in five lime kilns north of the city of Waukesha, in Section 26 of the town of Pewaukee. These tall rectangular shaft kilns now are the property of the Waukesha Lime and Stone Co. Hadfield began quarrying in this area just prior to 1859 and the five extant kilns are first indicated on an 1873 plat map. The Hadfield lime kilns are built of flat slabs of limestone taken from the adjacent Hadfield quarries. The five kilns are of uniform size, each about 35-40 feet tall, and about 15-20 feet per side. The two easternmost kilns are connected by a wooden structure, perhaps a cooling shed. The number and shape of the burning shaft(s) in each kiln is not visible but it is assumed that each of the five kilns are of the same configuration and date, and that each kiln contains the typical single rectangular shaft, which tapers in the direction of the firing eyes and drawholes. Today the kilns are patched in places with cement and the center kiln features a large crack in the southern elevation. Remnants of two tracks from the Chicago, Milwaukee and St. Paul railroad flank the line of five kilns. The Hadfield lime kilns and quarries in the area were served by the Milwaukee and St. Paul (later the Chicago, Milwaukee and St. Paul and today the Chicago, Milwaukee, St. Paul and Pacific), Chicago and Northwestern, the Wisconsin Central (today the Soo Line) railroads, and by Highway 164 and Blue Mound Road.

The Hadfield lime kilns today are particularly significant as a surviving ensemble of lime kilns. Commercial lime producers typically operated kilns in groups of three or more, to facilitate the loading and unloading of the kilns and to take maximum advantage of any railroad tracks run into the quarry. No better example of an ensemble of nineteenth century lime kilns exists in Wisconsin, and such a grouping is rare elsewhere in the country.

<sup>1</sup>Loerke, pp. 25-32, Ms. Loerke's book describes the history of the Hadfield company in great detail.

<sup>2</sup>History of Waukesha County, p. 317.

<sup>3</sup>Loerke, pp. 25-32.

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WILLIAM JOHNSTON LIME KILN (1870) *E of Genesee DEPOT vic.*

Location: Hwy. 59  
Waukesha, WI 53186

Owner: R & T Quality Stone Co.  
19567 W. Good Hope Road  
Lannon, WI 53046

The town of Genesee was an early locus of the Waukesha County lime industry. A Mr. Johnston bought out the Remington quarry, established prior to 1842 in Section 24, after 1850.<sup>1</sup> Census records from 1850 and 1860 indicate lime kilns and quarries in that section, although an 1859 plat map does not show a kiln at the quarry. The extant lime kiln at the site of the old Johnston quarry is a limestone hillside kiln. The initials "W.J." and the date "1870" are carved into the breast wall to the left of the single drawhole. This lime kiln is unique among the extant Waukesha County kilns because it is built into a hill, with only a breast wall exposed. Hillside kilns were popular with farmers and small-time lime producers, as indicated by nineteenth century agricultural journals.<sup>2</sup> Access to such a kiln was provided by a road leading around the hill to the top of the kiln.

The Johnston kiln is further distinguished from the other shaft kilns in Waukesha County by its handsome construction. The breast wall is built of great long, broad hewn limestone blocks, fitted together with a minimum of mortar. A single burning shaft is indicated by the single small drawhole. Debris today obscures the shaft, which may be either rectangular or cylindrical in plan and lined with limestone and firebrick. The breast wall is approximately 30 feet wide and today is about 15 feet tall, and originally was a few feet taller. The depth to which the kiln was built into the hill cannot be determined without digging into the hill. Ruins of a second kiln, presumably of the same date and configuration, are to the left of the extant kiln. An iron rock crusher, date unknown, is to the top right of the extant kiln. This machine crushed large pieces of limestone into a size suitable for loading and burning in a lime kiln, approximately four inches in diameter.

There is no physical evidence that a railroad ever ran directly to the Johnston lime kiln, but maps from 1873, 1891 and the present show that the Milwaukee and St. Paul (later the Chicago, Milwaukee and St. Paul) and the Chicago and Northwestern ran within two miles northwest of the quarry.

The Johnston lime kiln today is a good--and rare example in Wisconsin--of the popular hillside lime kiln typology. The interior, or working portion, of the kiln is in poor repair but the exterior breast wall indicates the typical shape and size of such a kiln, good masonry craftsmanship, and shows off the locally quarried limestone of which it is constructed to good advantage.

<sup>1</sup>Loerke, pp. 8-13.

<sup>2</sup>"Stone Lime: The use of, as a manure--and the construction of kilns for burning it, American Farmer 7, 1 April 1825, p.9.

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**GARWIN MACE LIME KILNS (1890)**

Location: Limekiln Park  
Menomonee Falls, WI 53051

Owner: Village of Menomonee Falls  
Mr. Robert J. Steliga, Village President  
P. O. Box 100  
Menomonee Falls, WI 53051

Lime production in the vicinity of Menomonee Falls began in the 1840s. The town of Menomonee long has been a center of the County's limestone production. The production of lime in Menomonee Falls, at least in comparison with the industry in other county communities, was less pursued even though limestone suitable for the making of lime appeared to be abundant:

Of the limestone deposit in this place and vicinity, there is practically no end. The supply is greater than at Pewaukee, and easier to get at. If enterprise and capital were applied, this place would become the chief lime-center of the Northwest, partly on account of the excellence of the lime...There are several kilns in operation, but the quantity shipped abroad is very small.<sup>1</sup>

An Isaac Howard opened the first limestone quarry in the vicinity in 1838. Frederick Nehs built three hillside lime kilns near the lower falls of the Menomonee River in 1845. The Nehs family owned the kilns and property in Section 10 through 1891. Only the ruins of the trio of 1845 kilns exist, and very little documentation exists to indicate the extent or longevity of the Nehs lime business. Garwin Mace built three vertical shaft lime kilns in 1890, above and behind the older Nehs set.<sup>2</sup> The limestone used to build the kilns, and presumably the stone burned in the kilns, was quarried across the Menomonee River. Mace operated the kilns for only three years, as by 1893 the market for lime had been saturated by the national overproduction of previous years.<sup>3</sup>

The Garwin Mace lime kilns are distinguished from the other kilns in this nomination by their cylindrical burning shafts. Iron rings lined the upper portion of the shafts; the remainder of the shafts were lined in firebrick. Like the Hadfield kilns, the three Mace lime kilns stand in line, although they are a less impressive ensemble. Each kiln has two burning shafts. The middle kiln is nearly a ruin but the two flanking kilns have been stabilized. The Mace kilns are rectangular in plan. Two drawholes occupy the longer sides of each kiln, and single drawholes are in the shorter sides. The kilns are constructed of rough slabs and blocks of limestone; the drawholes have been reconstructed in brick as a stabilization measure. Each kiln is approximately 25 feet tall. The Mace kilns were served by the Milwaukee and St. Paul (later the Chicago, Milwaukee and St. Paul), the Chicago and Northwestern, and the Hadfield company's Milwaukee, Menomonee Falls and Western railroad. Highway 74 also connected the Mace kilns and area quarries with kilns and quarries in the Sussex area. Since the 1960s, the Garwin Mace lime kilns have been the focal point of Menomonee Falls's Limekiln Park.

(see next page for footnotes)

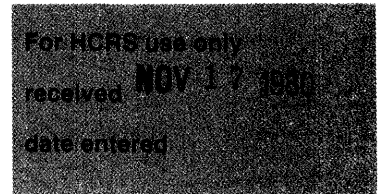
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<sup>1</sup>"Wisconsin News," Milwaukee Daily Sentinel, 27 October 1876.

<sup>2</sup>Loerke, p. 9.

<sup>3</sup>Mineral Resources 1889-1890, pp. 6-9.

SUSSEX LIME KILN (c. 1890) *Sussex vic E of*

Location: Hwy. 164  
Sussex, WI 53089

Owner: R. H. Nagy and E. M. Kraut  
18145 Coleen Vue Blvd.  
Brookfield, WI 53005

Limestone quarries opened early in the town of Lisbon. The Davidson Quarry opened in 1840 in Section 23, and Messrs. Smith and Elliott burned lime in Section 26 by 1849. Later incorporated in the Templeton Lime and Stone Co., six kilns in the vicinity of the old Elliot kilns burned lime until 1916, when the 35-foot tall kilns and a dynamite shack burned. Portions of Sections 34 and 35 included extensive quarry land and were owned for many years by the Weaver family. This founding family of Sussex owned early quarries and kilns. A pile of limestone chunks is all that remains of the Thomas Weaver (later F.G. Hinds's) lime kiln in Section 34, south of County Trunk K. Weaver bought the kiln, which had been built in 1848 or 1849, in 1853; rebuilt the kiln in 1854; and burned lime there until 1866.<sup>1</sup> Much of the old Weaver property now is worked by the Halquist Quarry.

The last lime kiln in the area of Sussex stands in Section 23 near the old Davidson quarry. An 1871 plat map shows a kiln in this location, although the date of the extant kiln is prior to 1891. The extant kiln was built by the Wisconsin Lime and Stone Co. and abandoned in 1910, when the Chicago and Northwestern Railroad was built on reclaimed quarry land to the north of the kiln.

Perhaps originally 35 feet tall, this rectangular shaft kiln contains two rectangular burning shafts within its thick, battered walls. The kiln is built of heavily mortared slabs of limestone. The shafts themselves are rounded-corner, rectangular in plan. The rounded corners facilitated the uninterrupted movement of the heated, sticky pieces of limestone through the kiln. The shafts were lined with a sequence of refractory linings, portions of which are still intact: firebrick, granite and, at the topmost part of the shaft, local limestone. Four firing eyes, two each in the western and eastern elevations, were covered with cast iron doors. The fire grates inserted into the walls of the kiln and other miscellaneous fittings were of cast iron. None of this equipment exists. Two arched drawholes, one at the bottom of each shaft, are in the western elevation. A wooden catwalk circled the kiln at the level of the firing eyes and a wooden shed covered the catwalk and unloading areas, protecting the kiln attendants from inclement weather. The Sussex kiln, a typical vertical shaft kiln, operated continuously in all seasons. An

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inclined wooden skid ran from the ground to the top of the kiln; quarry stone was brought to the top of the kiln in carts. The kiln was fired with green oak and tamarack. A limestone cistern to the north of the kiln indicate that the Sussex kiln at one time may have been oil-fired.

Wood was loaded into the firing eyes and rested on grates. The hottest part of the kiln, the vicinity of the firing eyes and the drawholes, were lined with firebrick. The shafts taper down toward the drawholes. The kiln sits on a limestone platform which, as a foundation, spreads the load of the kiln and its contents over a large area.

The Sussex kiln is easily accessible and its interior and exterior are intact enough to illustrate the construction and workings of a typical vertical shaft lime kiln. Local parties hope to stabilize the kiln and preserve it in a park development similar to that in Menomonee Falls.<sup>2</sup>

The Sussex kiln was served by the Wisconsin Central Line (today the Soo Line, or Minneapolis, St. Paul and Sault Ste. Marie), and the Hadfield Company's Milwaukee, Menomonee Falls and Western line (today the Chicago, Milwaukee, St. Paul and Pacific). After 1910, the area was served also by the Chicago and Northwestern railroad. Highway 164 connected the Sussex area with Pewaukee and Waukesha, and Highway 74 connected Sussex with Menomonee Falls.

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<sup>1</sup>History of Waukesha County, p. 747.

<sup>2</sup>"Move on to preserve the old lime kiln," Sussex (Wis.) Sun, 14 August 1979.  
also "The last Lime Kiln in Sussex," Sussex (Wis.) Sun, 20 July 1976.



## 8. Significance

Period	Areas of Significance—Check and justify below			
___ prehistoric	___ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion
___ 1400–1499	___ archeology-historic	___ conservation	___ law	___ science
___ 1500–1599	___ agriculture	___ economics	___ literature	___ sculpture
___ 1600–1699	___ architecture	___ education	___ military	___ social/
___ 1700–1799	___ art	___ engineering	___ music	___ humanitarian
___ x 1800–1899	___ commerce	___ exploration/settlement	___ philosophy	___ theater
___ 1900–	___ communications	___ x industry	___ politics/government	___ transportation
		___ invention		___ other (specify)

**Specific dates** 1840–1890

**Builder/Architect** Various

### Statement of Significance (in one paragraph)

The Waukesha County lime kilns are significant as industrial artifacts and as remnants of the once-dominant lime industry in the southeastern Wisconsin county. The ten Waukesha County kilns remain fine examples of an obsolete industrial technology, despite abandonment and deterioration. They represent an important nineteenth century regional economic and developmental force and are reminders that Waukesha County was once the center of the lime industry in Wisconsin.

### Historical Background

The manufacture of lime was a widespread industry in nineteenth century America. Construction lime was a pioneer necessity and kilns operated wherever there was building, be it out in the back forty or in growing cities. The burning of limestone to obtain lime for construction and agricultural uses is one of the oldest manufacturing industries in Wisconsin. The state's commercial lime industry was concentrated in its southeastern counties; of these counties, Waukesha County became the center of quarrying and lime manufacturing activities.

Southeastern Wisconsin is underlaid with abundant limestone deposits from the Niagara Formation and is also the location of terminal moraines of the Wisconsin Glacier of 15,000 years ago. The area is covered by gravel and outwash; in addition, the glacier carved out 63 lakes in Waukesha County alone. Nineteenth century industry in the county included, besides quarrying and lime, agriculture and mineral water and spas.

The earliest recorded lime kilns in Waukesha County operated prior to 1841; doubtless, lime kilns were used earlier in the Wisconsin Territory. Two Waukesha County communities claim to have had lime kilns before that year.<sup>3</sup> Waukesha County was settled quickly, immediately before and during the decade after Wisconsin's statehood (1848), and fast became the center of limestone quarrying and commercial lime production. Located immediately west of Milwaukee County, Waukesha industries benefitted greatly from Great Lakes shipping and Milwaukee railroads.

Settlers in the 1840s and 1850s speculated on the extent and value of the limestone deposits and glacial moraines. They found limestone in abundance and the lime industry began in the late 1840s, peaked in the 1870s, and reached a plateau in the 1890s. An 1880 history of Waukesha County attests to the Niagara Formation as being "the great lime furnisher of the Northwest."<sup>4</sup> Wisconsin ranked ninth nationally in lime production in 1892, seventh in 1901, and third in 1907.<sup>5</sup> Since the twentieth century, Wisconsin's predominantly magnesium lime industry has subsided in the face of demand for high calcium limes. As of the 1970s, Wisconsin's lime industry is established in the eastern counties north of Waukesha County.

(see next page for footnotes)

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- <sup>1</sup> Kenneth Bertrand, "A Survey of the Wisconsin Lime Industry," Wisconsin Academy of Sciences, Arts and Letters Transactions 36, 1944, p. 400.
- <sup>2</sup> Charles Spackman, Some Writers on Lime and Cement from Cato to Present Time, (Cambridge: W. Heffer & Sons, Ltd., 1929), pp. 2-3.
- <sup>3</sup> Laretta Larson Wieland, "Pewaukee's Quarry Era: A 'Mini Tale,'" (Pewaukee, Wis.: Pewaukee Area Historical Society, n.d.), p. 1. Ms. Wieland claims that Pewaukee had a lime kiln in 1838.  
  
The History of Waukesha County, Wisconsin, (Chicago: Western Historical Company, 1880), p. 318.
- <sup>4</sup> The History of Waukesha County, Wisconsin, (Chicago: Western Historical Company, 1880), p. 171.
- <sup>5</sup> U.S. Geological Survey, Mineral Resources of the United States, (Washington: U.S. Bureau of Mines). See volumes for 1892, 1901 and 1907.

Industrial Significance

The significance of the 19th century lime industry in Waukesha County is demonstrated by the development it spurred in the county, the wide distribution of the product, and the distinction it brought to local construction.

By the 1850s the quarries and adjacent kilns in Waukesha County were an apparent influence on the growth of the county. The underlying limestone formations were in the process of being actively exploited and it took a tremendous amount of labor to accomplish this. Kilns required firemen and loaders around the clock. Stone had to be cut, hauled, loaded, and sorted. In addition, wood had to be cut to fuel the fires needed for the burning of the stone. In some localities, "quarry crews were organized by nationality—one crew pitted against the other to see how much stone each could turn out."<sup>1</sup> In the Sussex area of Waukesha County, Italians and Poles comprised a significant portion of quarry workers. Most likely, seasonal workers were hired from Milwaukee and Chicago and from the ranks of transients passing through the county in search of temporary work.

The transportation system in the county was much influenced by the existence and location of the quarries and kilns. Railroads from Milwaukee reached out to accommodate the transportation needs of Waukesha County's quarries. A comparison of 1873 and 1891 maps shows a remarkable growth in rail development.

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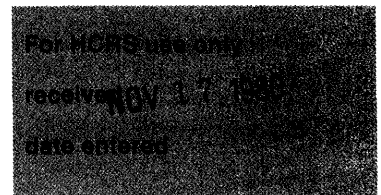
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The first lime kilns in the county established for the commercial production of lime were built in the late 1830s or early 1840s. While the distribution of this lime was probably not much further than Milwaukee, by 30 years later the distribution encompassed a much wider area. The Chicago fire of 1871 increased the demand for construction lime dramatically. By 1878 21 kilns were producing lime for commercial trade. The History of Waukesha County published in 1880 stated that:

. . . now Waukesha County lime is sold extensively in Chicago and in States west of Wisconsin, notwithstanding the cost of transportation, on account of the marked excellence of the article. There are kilns at almost every important stone quarry, and an analysis of their product shows that when properly burned, Waukesha lime is almost pure oxide of calcium. It is the whitest and strongest lime on the market.<sup>2</sup>

Waukesha County has a greater number of limestone public buildings and residences than most Wisconsin Counties. Although the stone industry in the county partially accounts for this phenomenon, the ethnic composition of the county is also an important factor. Welsh, German, and Yankee settlers from New York state were among the most adept users of the limestone and its by-products. Thus, today Waukesha County is still graced by fieldstone, cut stone, cobblestone, half-timbered, and brick buildings that bear the mark of the successful nineteenth century stone industry.

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<sup>1</sup> Interview with Fred Keller by Sue Radmer, 10 January 1980.

<sup>2</sup> History of Waukesha County, (Western Historical Co., 1880), p. 318.

#### Survey Comprehensiveness and Results

The surveys upon which this nomination is based encompass all known lime kilns in Waukesha County. Both Sue Radmer and Jean Penn Loerke, the primary investigators of Waukesha County lime kilns, feel that they have identified all kilns in the county through historical research and field investigations. With the demise of the industry as an important economic and construction force, several kilns were dismantled and their stone was used for other construction. There are no apparent remains at these sites. Disuse and abandonment have reduced another kiln to a pile of rubble. The Weaver kiln, located south of Sussex, shows some archeological potential, but at this time it remains unstudied.

**United States Department of the Interior  
Heritage Conservation and Recreation Service**

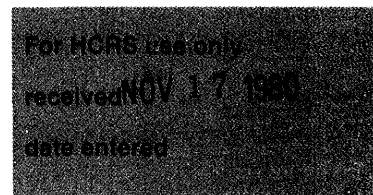
**National Register of Historic Places  
Inventory—Nomination Form**

Lime Kilns of Waukesha Thematic

Continuation sheet

Item number 8

Page 3



The archeological potential of the Nehs kiln, ruins that are situated near the Mace kilns, also remains unevaluated. Future investigations may prove the eligibility of these sites.

The identified kilns have been recorded in the Wisconsin Inventory of Historic Sites. In addition, the surveys that identified these kilns received wide publicity, as has the resultant National Register nomination. Public officials have been notified of the potential nomination of these sites to the National Register and state representative Ronald Lingren has actively promoted and encouraged this nomination. Officials will be notified of the location and significance of the sites, whether listed or not.

## 9. Major Bibliographical References

(See continuation page)

ACREAGE NO. VERIFIED

## 10. Geographical Data

UTM NOT VERIFIED

Acreage of nominated property see continuation page.

Quadrangle name see continuation page.

Quadrangle scale 1:24000

UMT References

A 

1	6
Zone	

3	9	2	2	4	0
Easting					

4	7	5	7	6	7	0
Northing						

C 

1	6
Zone	

4	0	9	5	4	0
Easting					

4	7	8	0	8	9	0
Northing						

E 




G 




B 

1	6
Zone	

4	0	1	0	6	0
Easting					

4	7	6	5	6	1	0
Northing						

D 

1	6
Zone	

4	0	1	8	5	0
Easting					

4	7	7	6	4	8	0
Northing						

F 




H 




Verbal boundary description and justification

(See continuation page)

List all states and counties for properties overlapping state or county boundaries

state	code	county	code
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state	code	county	code
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## 11. Form Prepared By

name/title Sue Radmer

organization

date August 1980

street & number 539 West 112th Street

telephone 212/866-9855

city or town New York

state New York 10025

## 12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

☐ national ☒ state ☐ local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the Heritage Conservation and Recreation Service.

State Historic Preservation Officer signature

*Richard Murray*

title Director, State Historical Society of Wisconsin

date

10/29/80

For HCRRS use only

I hereby certify that this property is included in the National Register

Keeper of the National Register

Attest:

Chief of Registration

**United States Department of the Interior  
Heritage Conservation and Recreation Service**

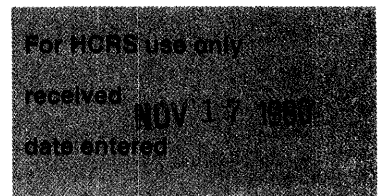
**National Register of Historic Places  
Inventory—Nomination Form**

Lime Kilns of Waukesha County Thematic

Continuation sheet

Item number 9

Page 1



Major Bibliographical References

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**United States Department of the Interior**  
**Heritage Conservation and Recreation Service**

**National Register of Historic Places**  
**Inventory—Nomination Form**

Lime Kilns of Waukesha County Thematic

For HCPS use only

received Nov 17 1980

date entered

Continuation sheet

Item number 9 , 10

Page 2

Major Bibliographical References

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Geographical Data

A. Johnson Kiln

Acreage: 7 acres

Quadrangle name: Genesee, Wisconsin

Verbal boundary description: part of the sw 1/4 of Section 24, Town 6 North, Range 18 East; commencing 21 feet east of the 1/8 corner post, west 996.5 feet, southwest 193.4 feet, south 75.75 feet, east 884.4 feet, north 6.75 feet, east 230.3 feet, south 23.75 feet, east 245.2 feet to the center of the highway, north 64 feet, east 50 feet, north 28.10 feet, west 361.5 feet, north 156 feet to the beginning (vol 1255.233 deeds). The property is located on Highway 59, one mile east of Genesee Depot between Genesee and Waukesha.

B. Hadfield Kilns

Acreage: 3.123 acres

Quadrangle name: Waukesha, Wisconsin

Verbal boundary description: part of the se 1/4 of Section 26, Town 7 North, Range 19 East, Town of Pewaukee; commencing at the nw corner of the se corner of Section 26, thence due south along the west line of said se 1/4 175.00 feet; thence due east 33.00 feet to the place of beginning of the land herein to be described; thence due south 183.77 feet; thence easterly 586.02 feet along the arc of a curve of radius 2308.77 feet, center lies to the North, chord bears south 82°24'30" east 584.45 feet; thence due north 260.98 feet; thence due west 579.33 feet to the place of beginning; containing 3.124 acres of land.

C. Mace Kilns

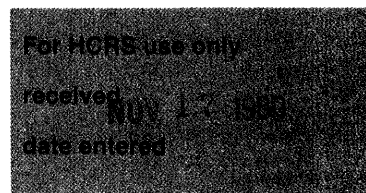
Acreage: less than one acre

Quadrangle name: Sussex, Wisconsin

Verbal boundary description: The kilns are situated in Limekiln Park in the Village of Menomonee Falls. The nominated property includes the kilns and 10 feet of land to the northwest, southeast, and southwest of the kilns, and extending to the Menomonee River to the northeast of the kilns.

**United States Department of the Interior  
Heritage Conservation and Recreation Service**

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Continuation sheet

Item number 10,11

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Geographical Data

## D. Sussex Kiln

Acreage: 5.74 acres

Verbal boundary description: The property is located in the se 1/4 of the se 1/4 of Section 23, T 8 North, Range 19 East, Town of Lisbon. The kilns are situated immediately east of the main line of the Soo Line Railroad Company and immediately south of the main line of the Chicago, Northwestern Railroad Company. The nominated property is a square with the two railroads forming the north and west sides; the east side is formed by a line extending 500 feet south of the northwestern railroad and the south side is formed by a line extending east from the Soo Line railroad for 500 feet.





Form Prepared By

Barbara Wyatt, Survey and Planning Coordinator  
State Historical Society of Wisconsin  
816 State Street  
Madison, Wisconsin 53706  
(608)262-8904  
September, 1980



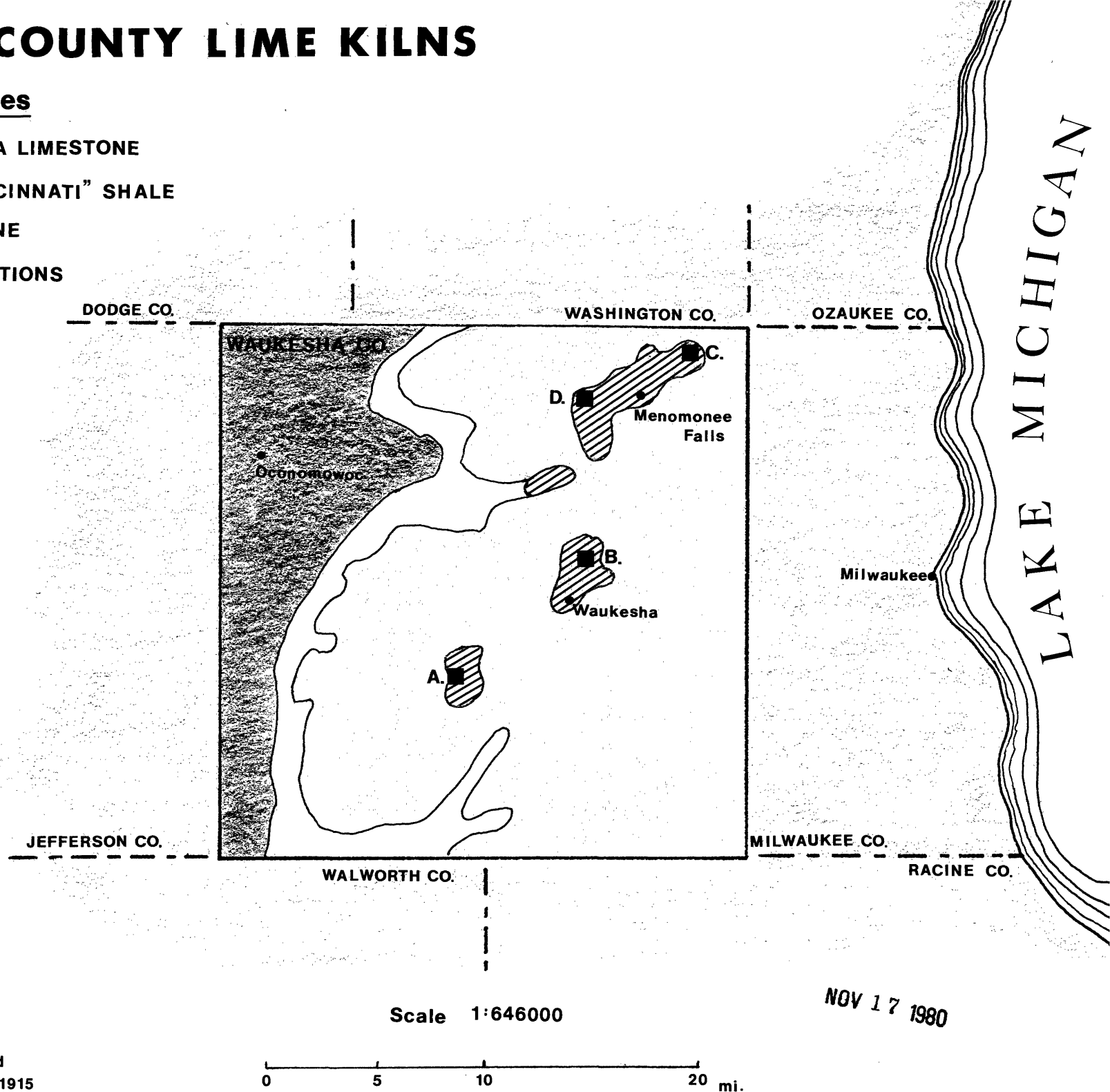
# WAUKESHA COUNTY LIME KILNS

## Underlying Rock Types

-  – TRENTON or GALENA LIMESTONE
-  – RICHMOND or "CINCINNATI" SHALE
-  – NIAGARA LIMESTONE
-  – MAJOR LIME FORMATIONS

## Lime Kilns – ■

- A. Johnston Kiln
- B. Hadfield Kilns
- C. Mace Kilns
- D. Sussex Kiln



Multiple Resource Area  
Thematic Group

dnr-11

Name Lime Kilns of Waukesha County Thematic Resources  
State Wisconsin

Nomination

Type of Review

Decision

1. Hadfield County Lime Kilns

Substantive Review

Am. by Dwyer 3/12/82

2. Mace, Garwin, Lime Kilns

Substantive Review

Am. by Dwyer 3/12/82

3. Johnston, William, Lime Kiln

Substantive Review

Am. by Dwyer 3/12/82

4. Sussex Lime Kilns

**DOE/OWNER OBJECTION**

Am. by Dwyer 3/12/82

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