

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM

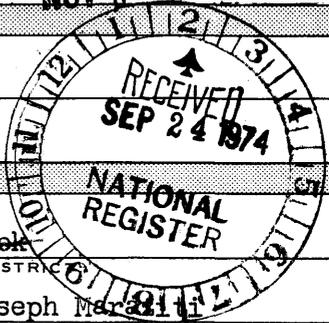
(Type all entries - complete applicable sections)

STATE:
New Jersey

COUNTY:
Morris

FOR NPS USE ONLY

ENTRY DATE
NOV 6 1974



1. NAME

COMMON:
Split Rock Furnace

AND/OR HISTORIC:

2. LOCATION

STREET AND NUMBER: **NW of Boonton**
~~At the base of Split Rock Reservoir, along Beaver Brook~~

CITY OR TOWN: ***Rockaway Township Boonton vicinity**

CONGRESSIONAL DISTRICT: **13th - Joseph Marshall**

STATE: **New Jersey** CODE: **34** COUNTY: **Morris** CODE: **027**

3. CLASSIFICATION

CATEGORY (Check One)	OWNERSHIP	STATUS	ACCESSIBLE TO THE PUBLIC
<input checked="" type="checkbox"/> District <input type="checkbox"/> Site <input type="checkbox"/> Object	<input checked="" type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Both	Public Acquisition: <input type="checkbox"/> In Process <input type="checkbox"/> Being Considered	Yes: <input type="checkbox"/> Restricted <input type="checkbox"/> Unrestricted <input checked="" type="checkbox"/> No
<input type="checkbox"/> Building <input type="checkbox"/> Structure		<input type="checkbox"/> Occupied <input checked="" type="checkbox"/> Unoccupied <input type="checkbox"/> Preservation work in progress	

PRESENT USE (Check One or More as Appropriate)

<input type="checkbox"/> Agricultural	<input type="checkbox"/> Government	<input type="checkbox"/> Park	<input type="checkbox"/> Transportation	<input type="checkbox"/> Comments
<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Private Residence	<input checked="" type="checkbox"/> Other (Specify)	
<input type="checkbox"/> Educational	<input type="checkbox"/> Military	<input type="checkbox"/> Religious	unused,	
<input type="checkbox"/> Entertainment	<input type="checkbox"/> Museum	<input type="checkbox"/> Scientific	currently remote location	

4. OWNER OF PROPERTY

OWNER'S NAME:
City Hall of Jersey City

STREET AND NUMBER:
280 Grove Street

CITY OR TOWN: **Jersey City** STATE: **New Jersey** CODE: **34**

5. LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.:
Hall of Records

STREET AND NUMBER:
Court Street

CITY OR TOWN: **Morristown** STATE: **New Jersey** CODE: **34**

6. REPRESENTATION IN EXISTING SURVEYS

TITLE OF SURVEY:
Historic American Buildings Survey (NJ-553) NJHSI-2893.1

DATE OF SURVEY: **1943; 1962** Federal State County Local

DEPOSITORY FOR SURVEY RECORDS:
Library of Congress ; Historic Sites Section, Dept. of Environmental Protection

STREET AND NUMBER:
Box 1420

CITY OR TOWN: **Washington ; Trenton, NJ** STATE: **D.C.** CODE: **11**

SEE INSTRUCTIONS

STATE: **New Jersey**

COUNTY: **Morris**

ENTRY NUMBER: **NON 1974**

FOR NPS USE ONLY

DATE

SEE INSTRUCTIONS

7. DESCRIPTION

CONDITION	(Check One)					
	<input type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Deteriorated	<input checked="" type="checkbox"/> Ruins	<input type="checkbox"/> Unexposed
	(Check One)			(Check One)		
	<input type="checkbox"/> Altered	<input checked="" type="checkbox"/> Unaltered		<input type="checkbox"/> Moved	<input checked="" type="checkbox"/> Original Site	

DESCRIBE THE PRESENT AND ORIGINAL (if known) PHYSICAL APPEARANCE

There are three distinct ruins left standing on the site: the blast, or smelting furnace; a smaller casting furnace for the molding of pig-iron into products desired for trade; and a crushing mill for the breaking-up of the charcoal and ore into manageable pieces.

As indicated by a map of Rockaway, dated 1868, there were at least fourteen structures in the iron manufacturing community at that time. Two are named specifically - a saw mill and a store. An earlier map also shows several buildings surrounding the 1838 furnace. Superficial work at the site does indicate several other foundations which might mean outbuildings, sheds, workers cottages, barns, or other commercial buildings. These foundations are further downstream of the forge and may be associated more with the mining operations than with the forge.

The first forge was built soon after the end of the Revolution, around 1793, by Ebenezer Ferrand. The forge, saw mill, and out-buildings noted at that time were evidently allowed to fall into ruins by the early 1800's, but the vein of iron was still worth exploiting.

In 1837 or 8 Andrew Bell Cobb (1804-1873), then owning the property, built the second forge.

Cobb rebuilt in 1862, creating the present Split Rock Furnace ruins. Andrew B. Lyon, millwright, of Lyonsville, a nearby village, supervised the actual buildings of the furnaces in 1862 for Andrew B. Cobb.

The Split Rock blast furnace can be described simply as a truncated pyramid of stone and brick, located at the foot of a hillside, alongside an outlet spilling out of the Split Rock Pond. This furnace was probably originally 32 feet high as indicated by Historic American Buildings Survey (NJ-553) in 1943.

The exterior wall is random stone and was originally held together at the top by two iron tie rods; one of which is presently gone, along with about three feet of the top stone. The base of the furnace is nearly 22 feet square. The furnace throat, now filled in by crumbling stone, was three feet in diameter, and the bosh about 4½ feet in diameter. The inwall has a brick lining.

There are remnants of a pier bridge foundation and retaining wall which provided support for the loading platform built across to the top of the furnace stack. Charcoal fuel, ore broken up into fist-sized chunks by the crushing mill, and limestone for flux were carried to the throat of the furnace by the bridge and emptied down the stack.

The second furnace was probably a casting furnace, in which pig-iron from the blasting furnace was melted down again and poured into molds for shot, shell, pans, tools, stoves, and whatever else was popular. This furnace was nearly a cube (16½ feet by 17 feet by 17½ feet high) in 1943 and this was probably its original form. The opening at the top is over ten feet in diameter and tapers to 8 feet at the bottom. This furnace also had a wooden charging bridge (loading bridge). At the other end of this bridge, placement, on the bank, is the foundation of another small stone building, possibly a crushing mill, but, more likely, a storage building for the charcoal and limestone.

There are a number of other foundations within the immediate area of the furnace. At the present time their functions are subject to interpretation.

South of the furnaces, near the brook, are the foundations of several
(cont.)

SIGNIFICANCE

PERIOD (Check One or More as Appropriate)

- | | | | |
|--|---------------------------------------|--|---------------------------------------|
| <input type="checkbox"/> Pre-Columbian | <input type="checkbox"/> 16th Century | <input type="checkbox"/> 18th Century | <input type="checkbox"/> 20th Century |
| <input type="checkbox"/> 15th Century | <input type="checkbox"/> 17th Century | <input checked="" type="checkbox"/> 19th Century | |

SPECIFIC DATE(S) (If Applicable and Known) 1793, 1837-8, 1862

AREAS OF SIGNIFICANCE (Check One or More as Appropriate)

- | | | | |
|---|---|--|--|
| <input type="checkbox"/> Aboriginal | <input type="checkbox"/> Education | <input type="checkbox"/> Political | <input type="checkbox"/> Urban Planning |
| <input type="checkbox"/> Prehistoric | <input type="checkbox"/> Engineering | <input type="checkbox"/> Religion/Philosophy | <input type="checkbox"/> Other (Specify) _____ |
| <input type="checkbox"/> Historic | <input checked="" type="checkbox"/> Industry | <input type="checkbox"/> Science | _____ |
| <input type="checkbox"/> Agriculture | <input type="checkbox"/> Invention | <input type="checkbox"/> Sculpture | _____ |
| <input type="checkbox"/> Architecture | <input type="checkbox"/> Landscape Architecture | <input type="checkbox"/> Social/Humanitarian | _____ |
| <input type="checkbox"/> Art | <input type="checkbox"/> Literature | <input type="checkbox"/> Theater | _____ |
| <input type="checkbox"/> Commerce | <input type="checkbox"/> Military | <input type="checkbox"/> Transportation | _____ |
| <input type="checkbox"/> Communications | <input type="checkbox"/> Music | | |
| <input type="checkbox"/> Conservation | | | |

STATEMENT OF SIGNIFICANCE

Until the outset of the 18th century, most of the iron the European settlers in America were using came from across the Atlantic, mainly from Britain. The cost of this imported iron was high, and constantly going higher.

The Ramapos were part of the answer to the cost of overseas iron. This New World iron deposit consisted largely of magnetite, a form of iron oxide with the highest known iron content. In addition to the iron ore the Ramapos provided several other natural advantages: several small rivers large enough to run the bellows, easy access to the beds of ore, hills thick with trees to convert into charcoal, and easy gradients for early roads - an important factor in the pre-canal and railroad eras. Another favorable factor was the nearness of all parts of New Jersey to deep-water ports suitable for heavy shipping.

Although Americans were producing iron products nearly a century prior to the Revolution it was the outbreak of hostilities against the British which forced them to rely nearly exclusively on domestic iron products. New Jersey was one of the most important iron manufacturers of the Revolution, and, although there were several furnaces in South Jersey which also supplied the Continental Army, the forges and furnaces of the Ramapos supplied a higher quality product.

After the Revolution iron products were needed just as badly as before, and a conversion to a peacetime economy became nessecary. One of the furnaces in the Ramapos which first began after the Revolution was Split Rock.

Split Rock was first tapped as a source of iron-ore around 1793 when Ebenezer Ferrand constructed the first crude furnace. This furnace and several other buildings were ruins when the property conveyed to Lemuel Cobb in 1803.

In 1816 Colonel Lemuel Cobb (1762-1831) was recorded as operating a forge of two fires at Split Rock. A tax list for Pequannock Township in 1822 assessed John Dixon for two fires at Split Rock, at which time it was known as Dixon's Forge. Evidently, as no deeds of land transferral can be located and the Cobb Family owned the forge and property for nealy 100 years (1803-1896), Dixon never owned the land, but merely leased the operations.

By his will of 1827 (proven 1831) Lemuel Cobb devised his holdings to the family. The son of Lemuel, Andrew Bell Cobb (1804-1873) secured the entire estate in 1838 and consequently constructed the second iron-works.

In 1862 Cobb again rebuilt the furnace hoping to cash in on the

(cont.)

SEE INSTRUCTIONS

9. MAJOR BIBLIOGRAPHICAL REFERENCES

Bishop, J.L. History of American Manufactures from 1608-1860. Philadelphia, 1868. (p. 543, Vol. I).
 Boyer, Charles. Early Forges and Furnaces in New Jersey. Philadelphia, 1931. (pp. 5-9, 211).
 Munsell, W.W. & Company. History of Morris County, New Jersey to 1882. New York, 1882. (p. 66).
 New Jersey Geologic Survey. George H. Cook. 1868.
 Honeyman, A. Van Doren, ed. History of Northwestern New Jersey. New York, 1927. (Vol. 4, p. 350).
 Ransom, James M. Vanishing Ironworks of the Ramapos. New Brunswick, 1966. (pp. 8-11).

NW 1/4 51 15 40
 NE 1/4 51 15 40
 SE 1/4 51 15 40
 SW 1/4 51 15 40
 SEE INSTRUCTIONS

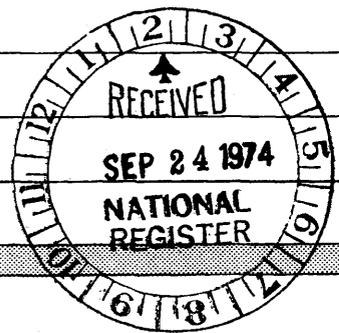
10. GEOGRAPHICAL DATA (Cont.)

LATITUDE AND LONGITUDE COORDINATES DEFINING A RECTANGLE LOCATING THE PROPERTY				OR	LATITUDE AND LONGITUDE COORDINATES DEFINING THE CENTER POINT OF A PROPERTY OF LESS THAN TEN ACRES				
CORNER	LATITUDE				LONGITUDE				
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
NW	40°	57'	51"	74°	28'	15"			
NE	40°	57'	51"	74°	27'	11"			
SE	40°	57'	16"	74°	27'	11"			
SW	40°	57'	16"	74°	28'	15"			

APPROXIMATE ACREAGE OF NOMINATED PROPERTY: **431 acres**

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE:	CODE	COUNTY	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE



11. FORM PREPARED BY

NAME AND TITLE: **Terry Karschner, Historian-Curator**

ORGANIZATION: **Historic Sites Section, Dept. of Environmental Protection** DATE: **03/11/1974**

STREET AND NUMBER: **Box 1420**

CITY OR TOWN: **Trenton** STATE: **New Jersey** CODE: **34**

12. STATE LIAISON OFFICER CERTIFICATION NATIONAL REGISTER VERIFICATION

As the designated State Liaison 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 National Park Service. The recommended level of significance of this nomination is:

National State Local

Name David J. Bardin
 Title Commissioner, Dept. of Environmental Protection
 Date July 1, 1974

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

A. K. Mortensen
 Director, Office of Archeology and Historic Preservation

Date 11/6/74

ATTEST:
Wm. Mumford
 Keeper of The National Register

Date 11.5.74

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM**

(Continuation Sheet) 1.

STATE New Jersey	
COUNTY Morris	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE
	NOV 6 1974

(Number all entries)

Split Rock Furnace
Rockaway Township
Morris County 027
New Jersey 34

7. Description (cont.)

structures, possibly the residences of the iron-workers.

Split Rock Furnace, remote in the 19th century, remains so even today. It is perhaps even more isolated now than it was in the third quarter of the 19th century. With the exception of a high voltage line and a new viaduct over the Split Rock Reservoir outlet to the immediate north there has been no 20th century intrusions. And the ownership by Jersey City for over fifty years as a water resource for the city indicates that it will remain unaffected by progress.

Note on the present condition of the furnace:

Not only are the rocks crumbling and falling from the upper levels of the two furnaces, but the northern wall of the larger furnace is bulging out menacingly at the top. What is happening is that between the core of the furnace, lined with clay, and the exterior wall laid up without mortar the builders filled in with dirt to provide more efficient insulation. Over a century water has entered and sometimes froze heaving the furnace walls outward. Another deteriorating factor is the growth of underbrush at the base of the furnaces which also is causing some heaving.

The threat of destruction to Split Rock Furnace comes from Nature, not man.



NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM

(Continuation Sheet) 2.

STATE New Jersey	
COUNTY Morris	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE
	NOV 6 1974

(Number all entries)

Split Rock Furnace
Rockaway Township
Morris County 027
New Jersey 34

8. Significance (cont.)

immediate demand for iron-products during the Civil War. The forge and furnace was a major operation for only two years and produced little iron.

Split Rock Furnace signaled the end of charcoal furnaces in the United States. Built during the Civil War, hoping to take advantage of the enormous need for ammunition and shot, the furnaces were an anachronism as they were being built. The time of the charcoal furnace had already ended. (It was the last one built in New Jersey) The anthracite forges were well into their second decade. Charcoal was not as efficient as coal, but possibly more important in the extinction of charcoal furnaces was the fact that with coal it was financially reasonable to transport the fuel to the resource. Previously, forges had to be located near forests of fuel, sometimes in the remotest of areas.

Once Cobb realized his costly financial error he no longer continued to operate on a major scale. He continued, however, to have visions of someday benefiting from the minerals in the land. His will, dated 1869 and proved 1873, devised the "Split Rock Tract upon which is the water power, blast furnace, forge, saw mill, storehouse, and dwelling house and other buildings..." to his son Andrew L. Cobb (1867-1922) "being convinced that the minerals ... are of great value and will produce a large income."

This never came to pass on a large scale and in 1896 Cobb sold the property to the Montclair Water Company, after having leased to them for several years.

The last period of operation may have been in 1873 when the forge was under lease to William D. Marvel of New York. There is no record of the furnace operating any time subsequent to 1873.



NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM

(Continuation Sheet) 3.

STATE	New Jersey	
COUNTY	Morris	
FOR NPS USE ONLY		
ENTRY NUMBER		DATE
	NOV 6	1974

(Number all entries)

Split Rock Furnace
Rockaway Township
Morris County 027
New Jersey 34

9. Bibliography (cont.)

- Historic American Buildings Survey. New Jersey-553. 1943.
- Platt, Charles. Dover History. New Jersey, 1914.
- Bayley, William. Iron Mines and Mining in New Jersey, 1861-1910. New Jersey, Volume 7. (Chapter IX, pp. 195-9).
- Shields Map of Morris County. 1853.
- Beer's Atlas of Morris County. 1868.
- Kury, Theodore W. "Early Settlement in the Highlands; An Iron-maker - Farmer Sequence?" Pioneer America. January, 1970 (II, pp. 7-14).

verbal information supplied by:

Grace Lyon (Mrs. Joseph) Concialdi, native of Lyonsville, now living at West Main Street, Rockaway. Born within two miles of the furnace. Her grandfather supervised the construction of the 1862 furnace. Ms. Lyon is presently over 80 years old.

information compiled by:

- Mrs. Eleanor Mason, Librarian, Rockaway Township Free Public Library.
- Mrs. Alyce Bowers, Director, Rockaway Township Free Public Library.
- Mrs. T. Harry (Hazel) Howell, 466 Mount Hope Avenue, Dover, NJ

