

PH 367796

DATA SHEET

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FOR NPS USE ONLY
RECEIVED FEB 11 1976
DATE ENTERED JUN 18 1976

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 *Wm* Clinton Furnace Harris Old Forge

AND/OR COMMON

2 LOCATION

STREET & NUMBER *off N 8 23 st*
~~At the base of~~ Clinton Reservoir by
Clinton Brook

CITY, TOWN ~~West-Milford~~ *Newfoundland* VICINITY OF
CONGRESSIONAL DISTRICT 8th

STATE New Jersey CODE 34 COUNTY Passaic CODE 031

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE
<input checked="" type="checkbox"/> DISTRICT	<input checked="" type="checkbox"/> PUBLIC	<input type="checkbox"/> OCCUPIED	<input type="checkbox"/> AGRICULTURE <input type="checkbox"/> MUSEUM
<input type="checkbox"/> BUILDING(S)	<input type="checkbox"/> PRIVATE	<input checked="" type="checkbox"/> UNOCCUPIED	<input type="checkbox"/> COMMERCIAL <input type="checkbox"/> PARK
<input type="checkbox"/> STRUCTURE	<input type="checkbox"/> BOTH	<input type="checkbox"/> WORK IN PROGRESS	<input checked="" type="checkbox"/> EDUCATIONAL <input type="checkbox"/> PRIVATE RESIDENCE
<input type="checkbox"/> SITE	PUBLIC ACQUISITION	ACCESSIBLE	<input type="checkbox"/> ENTERTAINMENT <input type="checkbox"/> RELIGIOUS
<input type="checkbox"/> OBJECT	<input type="checkbox"/> IN PROCESS	<input checked="" type="checkbox"/> YES: RESTRICTED	<input type="checkbox"/> GOVERNMENT <input type="checkbox"/> SCIENTIFIC
	<input type="checkbox"/> BEING CONSIDERED	<input type="checkbox"/> YES: UNRESTRICTED	<input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> TRANSPORTATION
		<input type="checkbox"/> NO	<input type="checkbox"/> MILITARY <input type="checkbox"/> OTHER:

4 OWNER OF PROPERTY

NAME City of Newark

STREET & NUMBER
920 Broad Street

CITY, TOWN Newark VICINITY OF STATE New Jersey

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC. Hall of Records

STREET & NUMBER
Hamilton Street

CITY, TOWN Paterson STATE New Jersey

6 REPRESENTATION IN EXISTING SURVEYS

TITLE New Jersey Historic Sites Inventory (#3295.3)

DATE 1975
FEDERAL STATE COUNTY LOCAL

DEPOSITORY FOR SURVEY RECORDS Historic Sites Section, P.O. Box 1420, Dept. of Environmental Protection

CITY, TOWN Trenton STATE New Jersey

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
<input type="checkbox"/> EXCELLENT	<input type="checkbox"/> DETERIORATED	<input type="checkbox"/> UNALTERED	<input checked="" type="checkbox"/> ORIGINAL SITE
<input type="checkbox"/> GOOD	<input checked="" type="checkbox"/> RUINS	<input checked="" type="checkbox"/> ALTERED	<input type="checkbox"/> MOVED DATE _____
<input checked="" type="checkbox"/> FAIR	<input type="checkbox"/> UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Clinton Furnace is all that remains of a once flourishing iron community. The other structures which comprised the community, the sawmill, gristmill, forge, houses, etc. have all visually disappeared. Remaining foundations are the only clue to their original presence.

A map of West Milford Township dated 1861, shows that there were at least 11 structures present; three of which are specifically mentioned: the furnace, the sawmill, and the gristmill. Above the furnace and to the northwest are where the gristmill and most of the buildings shown on the map are located. The exact nature of the buildings shown on the map but not identified have yet to be determined. It is likely that the charcoal house, a general store and the superintendant's house were located here. A schoolhouse built to serve the children of the area was constructed somewhere in the vicinity of the furnace. The building also served as a church and meeting house. To the south of the furnace and along the brook was where the sawmill was located and where there is strong evidence that the forge existed. The sawmill was built over the stream and can be identified by the remaining foundation. The forge was located further south and in from the brook. The landscape, the remnants of the foundation and the color and texture of the soil nearby suggests the presence of a forge. There are also in this area and going still further south along the old road which parallels the stream numerous foundations which probably housed workers and or were sites of barns, sheds and other buildings typical of an iron community. On all of these sites more research and excavations need to be done to determine the exact use of these structures.

Construction on the Clinton Furnace began in 1826 by William Jackson of Roackaway and was completed sometime prior to September 17, 1833 when the furnace was fired for the first time. The site was an ideal location for a furnace since the source of power needed to operate a furnace was provided by Clinton Brook which ran nearby. There is also a natural rock ledge at the base of which the furnace was located.

The furnace itself is 29 feet by 29 feet at the base tapering to 18' by 18 feet at the top. The height of the furnace is approximately 40 feet. It is constructed of random, interwoven stone with a dirt lining. There are three openings at the base of the furnace; on the east, west and south sides; the eastern opening has been sealed off. Two of the openings were where the liquid iron flowed out

(Cont.)

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION
<input type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input checked="" type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)
		<input type="checkbox"/> INVENTION		

SPECIFIC DATES

1826, 1833-37

BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

As a result of the American Revolution and the War of 1812 America was forced into creating an economic independence to complement its political freedom. Clinton Furnace, then, represents what was not uncommon of this early floundering republic (at least in New Jersey) - an iron industry created for a regional market, but relatively short-lived and unsuccessful. This early 19th century village and industry site, nearly untouched by subsequent development, forms an industrial complex, which, if properly studied and analyzed could provide further insights into New Jersey's earlier industrial pursuits.

Up until the 18th century, most of the iron used in America came from overseas, mainly Britain. With the advent of the Revolution, and other factors which made it feasible for America to produce its own iron, less iron was imported from abroad. The cost of imported iron was constantly going up. This was due to the costs of Trans-Atlantic shipping and the higher costs of working old mines. Another factor was that fuel sources were being depleted rapidly in Europe. America, on the other hand, had several advantages: 1) a supply of iron that had been initially untapped, 2) the form of iron was magnetite which had the highest known content of iron, 3) the iron was easy to smelt, 4) a vast and accessible fuel supply, 5) numerous streams that could supply power, 6) there was no need for deep and costly digging, and 7) the streams made easy gradients for work and for roads.

The area in North Jersey where the Clinton Furnace is located had all these factors present. In the same general area and in short distance from the Clinton Furnace is located the Charlotteburg Furnace, the Split Rock Furnace and the Wawayanda Furnace. The area also had several forges where pig iron was sent and made into workable products.

Clinton Furnace was the idea of William Jackson, the son of Stephen Jackson of Rockaway. Before William decided to construct the furnace, he had been partners with his brother Joseph in a rolling mill in Rockaway where the 1st

(Cont.)

9 MAJOR BIBLIOGRAPHICAL REFERENCES

1. Crayon, J.P. "Clinton Falls and Furnace", The Highlander, October 1957, pp. 3-5. Reprinted from Evergreen News, 1902.
2. Crayon, J.P. "Clinton Falls", Warwick Advertiser, Warwick, New York, June 28, 1888, p. 142.

(cont.)

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 37

UTM REFERENCES

A	1,8	54,65,8,0	4,54,70,6,0	B	1,8	54,62,5,0	4,54,64,5,0
	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING
C	1,8	54,59,4,0	4,54,68,0,0	D	1,8	54,59,3,0	4,54,64,4,0
	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING

VERBAL BOUNDARY DESCRIPTION

Beginning at the Eastern base of the Clinton Reservoir dam proceed due East to Clinton Road. Thence, proceed ~~SW~~ along the road to a point 550 feet East of the fork in the road. Thence, proceed due South to the tension lines. Thence, proceed due West along the tension lines to the 1000 Foot contour. Thence, proceed along the bank of the Reservoir to the point of beginning.

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

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

Peter Ylvisaker, Assistant to the Director

ORGANIZATION

Newark Watershed Conservation and Develop. Corp.

DATE

STREET & NUMBER

605 Broad Street, 15th Floor

TELEPHONE

CITY OR TOWN

Newark

STATE

New Jersey

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 National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

David J. Bond

TITLE Commissioner, Department of Environmental Protection DATE

January 19, 1976

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

6/18/76

Acting DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST:

DATE

6.18.76

Acting KEEPER OF THE NATIONAL REGISTER

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and into veins where the iron cooled off and hardened; the third or eastern opening was where the water wheel was located which operated the bellows which kept the fire hot. Tie irons, which were used to hold the furnace together, are still present and in fair condition.

On the north side of the furnace on top of the rock ledge there still remains remnants of the bridge foundation over which the charcoal and the iron was carted across the "charging bridge" and dumped down the throat of the furnace. The flume, now gone, was also constructed over the rock ledge through which the water used to turn the water wheel which operated the bellows flowed. Minor excavations at the eastern base of the furnace - approximately 15 feet away - have revealed a brick channel which was used to funnel the water back into Clinton Brook after it ran off the wheel.

The land on which the Clinton Furnace is situated is now owned by the City of Newark and used by the City as a water resource. A reservoir was constructed 1/4 mile north of the furnace in 1892 to meet the City's increasing demand for water. The construction of the reservoir has not changed the immediate area around the furnace or to the south, but above the furnace changes have occurred. A new road has been constructed which is south of the old road, now covered by Clinton Reservoir, and passed directly above the furnace which is partly hidden by underbrush and trees in the spring and summer. Also, the original stream course above the furnace was changed by the construction of the dam and the small pond which was the source of the Clinton Brook is no longer. Fortunately, with the aid of old maps, and the knowledge of some of the local historians the area before the dam was constructed can still be determined. (pictured)

Note: Clinton Furnace is visited frequently by Newark school children and others who happen to glimpse the furnace from the road. Some vandalism has occurred in recent years, but most of the damage done has come from nature. Over the years, the Department of Public Works has made minor repairs such as cementing the top so water does not loosen the rocks, and replacing tie rods and stone, but these repairs are temporary and only delay its collapse. More extensive work needs to be done in order to ensure the Furnace's future.

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round iron was rolled and used extensively by the United States Navy. After selling out in 1826, William bought a 1,000 acre site and began the construction of Clinton Furnace. (Construction may possibly have begun as early as 1822 while William was still a partner in the rolling mill at Rockaway.) The Furnace, houses, roads, a schoolhouse, a gristmill, a sawmill, and every industry needed to make a community was built, but as no money was generated William was forced to sell the land to James Wheeler who in 1833 sold the land to John F. Winston and Freeman Wood who were sons-in-law of William Jackson. (Mr. Winston later went to Troy, New York where he became a partner with Erastus Corning in Albany Iron Works. The "Moniteer" which met the Merimac in 1861[?] was built and owned by them at the time of this encounter.) Under Mr. Winston and Mr. Freeman the furnace was completed and was fired for the first time September 17, 1833 with the first casting of pig iron on October 3, 1833.

The Clinton Furnace was fired three more times, April 1834, July 1835 and February 1836, before operations at the Furnace were completely abandoned in 1837. During the 4th and final blast the ownership changed hands to the Clinton Manufacturing Corporation managed by a man by the name of Pratt. The reason for the failure has been attributed to 1) economic conditions and 2) lack of available fuel. It is interesting to note that at the time the furnace was abandoned iron prices were the highest they had been since 1825 and prices did not decline until the early 1840's. It is more likely then that the four years of operation had exhausted the available supply of wood. Another reason may have been the furnace itself. There were several occasions where the furnace had to be shut down during a blast for repairs and in an article witten by J.P. Crayon he states "the furnace after many experiments was abandoned in 1837."

The iron ore used for the operation was carted in from 5 local mines: Ringwood, Hibernia, Mt. Pleasant, Ogdenburg and Hamburg. Although iron ore deposits were present within 2 miles of the furnace the content of the ore was too sulphurous for use at this time. The pig iron produced at the furnace was carted mostly to Rockaway and Dover where the bars were turned into workable products. Some of the iron found its way to Newark and New York. On the return trip ore, machinery, and provisions were carted back. The trip usually lasted three days.

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After the abandonment of the furnace in 1837, by the Clinton Manufacturing Company (CMC) a forge was erected and used until 1852 when the property, then under the ownership of the Maryland Company, completely abandoned the operation. The area was never used again. It seems that the forge was never in operation before 1837 because the CMC had to rebuild the forge. The forge had a total of 3 fires and is reputed to have made ship anchors.

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3. Harper's New Monthly Magazine, "Artist Life in the Highlands", New York, April 1860, pp. 579-581.
4. Ranson, James M., Vanishing Ironworks of the Ramapos, New Brunswick, 1966, pp. 99-104, 3-13.
5. Boyer, Charles. Early Forges and Furnaces in New Jersey, Philadelphia, 1931.
6. Munsel, W.W. and Company. History of Morris County, New Jersey, 1882, New York, 1882, p. 48.
7. Map of the Counties of Bergen and Passaic, New Jersey, WPA Project No. 16-2143 extracted from a map published, G.M. Hopkins and G.H. Corey, Philadelphia, 1861.
8. Map of the Township of West Milford, New Jersey, WPA Project Number 16-2143, extracted from a map published by E.P. Hyde and Company, New York, 1880.