

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

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1. Name of Property

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historic name: Greenwood Furnace

other name/site number: part of Greenwood Furnace State Park

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2. Location

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street & number: 5 miles east of McAlevys Fort on State Rte. 305

not for publication: N/A

city/town: Jackson Township

vicinity: N/A

state: PA county: Huntingdon code: 061

zip code: 16642

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3. Classification

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Ownership of Property: Private, Public - State

Category of Property: District

Number of Resources within Property:

Contributing	Noncontributing
3	4 buildings
1	_____ sites
1	_____ structures
_____	_____ objects
5	4 Total

Number of contributing resources previously listed in the National Register: 0

Name of related multiple property listing: Industrial Resources of
Huntingdon County

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property does not meet the National Register Criteria. See continuation sheet.

Signature of certifying official Date

State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of commenting or other official Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby certify that this property is:

- entered in the National Register See continuation sheet.
determined eligible for the National Register See continuation sheet.
determined not eligible for the National Register
removed from the National Register
other (explain):

Signature of Keeper Date of Action

6. Function or Use

Historic: Industry/Processing/Extract Sub: Manufacturing Facility Extractive Facility
Current : Recreation And Culture Sub: Outdoor Recreation Agriculture/Subsistence Landscape Agricultural Outbuildings Park

7. Description

Architectural Classification:

Other

Other Description: iron plantation

Materials: foundation stone walls stone roof metal other

Describe present and historic physical appearance. X See continuation sheet.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties: locally.

Applicable National Register Criteria: A D

Criteria Considerations (Exceptions) :

Areas of Significance: Industry Archaeological historic, non-aboriginal

Period(s) of Significance: 1834-1904 -

Significant Dates : 1834 1868

Years of Alterations:

Significant Person(s): N/A

Cultural Affiliation: NA

Architect/Builder: unknown

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above. X See continuation sheet.

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9. Major Bibliographical References

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See continuation sheet.

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested.
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # PA0411027

Primary Location of Additional Data:

- State historic preservation office
- Other state agency
- Federal agency
- Local government
- University
- Other -- Specify Repository: GREENWOOD FURNACE STATE PARK

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10. Geographical Data

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Acreage of Property: 135

UTM References: Zone Easting Northing Zone Easting Northing

	A	18	262720	4503525	B	18	263920	4501840
	C	18	267022	4503825	D	18	267495	4503930

See continuation sheet.

Verbal Boundary Description: See continuation sheet.

Boundary Justification: See continuation sheet.

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11. Form Prepared By

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Name/Title: Deborah L. Suci

Organization: PHMC-BHP

Date: July 1989

Street & Number: Box 1026 State Museum

Telephone: (717) 783-5796

City or Town: Harrisburg

State: PA ZIP: 17108-1026

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NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section number 7

Greenwood Furnace 2

DESCRIPTION OF APPEARANCE:

Located in part in Greenwood Furnace State Park, the buildings and structures in the historic district which survive from the period of iron production at Greenwood Furnace (1834-1904) include: one furnace stack, the ironmasters mansion, the meathouse and a church. The following associated components are also included in the district boundary: the foundations of workers housing and the remains of a second furnace stack, the tram right-of-way, the tavern and mill sites, and the numerous mine openings and tailings. Due to the presence of these several remains, the nominated area has been counted as one site. There are several noncontributing State Nursery structures and buildings scattered among those associated with historic iron production.

Greenwood Furnace State Park is located in the northeastern part of the county occupying 334 acres. In general, the westernmost part of the historic district lies within the jurisdiction of the Bureau of Forestry, the central and part of the eastern section is maintained by the State Park while the rest of the east and the northernmost sections are claimed by the Bureau of Forestry-Nursery. Each of these sections are managed by the Department of Environmental Resources. The westernmost part of the district, a great deal of the tram right-of-way, and the northern section of the eastern part of the district are forested. The lands, structures and buildings have been subject to continuing maintenance and use change throughout the twentieth century history of the site.

In 1885, the State Geological Survey carefully mapped the site but did not label each structure. In 1929 an old furnace employee mapped and labeled his recollection of the site. A composite of these maps and other historical documentation have been used to determine historic association of the standing structures, buildings and site with the operation of the iron plantation. They provide locations and names for the rows of worker houses and the location of iron mines. The boundaries for the proposed district do not include the entire extent of the iron plantation nor do they include all associated buildings or structures, but only those that retain their physical integrity.

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Section number 7

Greenwood Furnace 3

The ironmaster's mansion (1834) is a four-bay, two-story, gabled roof house of coursed stone rubble with a two-story rear ell with a half gable shingle roof. A wooden porch runs across the front of the house. Alterations to the original house took place at an unknown time and include removal of the plaster coating seen in early photos, the addition of two external brick chimneys and the stone chimney as well as the little south side bay which was constructed as a kitchen. The interior is said to be much altered but access was denied.

A one-story rubble stone church (1865) still stands, gable front facing Route 305, with a side entrance porch and cupola. It was cleaned and repointed in 1980. Located on the eastern side of the building, the door is four paneled with a fanlight above. The windows in front are six over six, those on the sides are nine over nine.

The meat house is a one-and-a-half-story log building measuring approximately 20 by 25 feet with a rubble stone foundation. The brick chimney is in the middle of the shingled gable roof but not centered, rather shifted slightly to the west. There are two doors on the west end and one on the south side with 2 small two over two windows on either side. It presently has German siding on the exterior like later nursery buildings. The interior ceiling retains meat hooks.

Foundation remains from three rows of workers housing have been included in the district: Colliers, Creek and Griffith Row. The houses were moved or removed immediately following the sale of the land to the state. Archaeological testing has been conducted at several locations in the vicinity of the housing at various times throughout the past fifteen years by Paul Heberling. Interviews with the investigator indicate that there was little disturbance in the vicinity of these rows. On walks through the area using historic maps as references, one can identify stone rubble arranged in square configurations along a row. The area is now swampy and wooded due to a history of nursery plantings. The remains of a dam lie on the creek that flows through the district near the foundation remains.

The ruins of the furnace stack #1 date from approximately 1834 and were excavated about 1976 by Paul Heberling. They are the remains of a structure approximately 15 feet high. The

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Section number 7

Greenwood Furnace 4

recent stone infill of the north arch is poorly executed. Furnace stack #2 (1868) is a 30 x 30x 30-foot stack of coursed sandstone blocks that was reconstructed in 1936 by the CCC who mortared the stones for greater stability, leaving its four arches open to walk through, the crucible remains exposed, and the stack open to the top. It is capped with concrete except for a round center hole. Historic documentation suggests that stack #1 was cold blast while stack #2 used hot blast.

Some testing was also conducted about 10 years ago immediately south of the furnace stacks where the remains of the charcoal house have tentatively been identified. Walkovers can provide visible identification of the perimeter of the site by the nature of the soil composition and the placement of fieldstone rubble.

Interviews with the archaeologist and use of historic maps help identify the site of the tavern. Testing was conducted by the same archaeologist. The site is now overgrown and the southernmost wall may have been disturbed by road work. Southwest of the tavern site is the historic location of the gristmill. Its stone foundations and wheel pit are still visible. The site is undisturbed and minimal archaeological testing did take place there.

A cemetery (1850s-1920s) lies 4/10 of a mile west of the church also on the south side of Route 305. Two Revolutionary War and several Civil War veterans are known to have been buried there. The limestone markers do not lie in a regular arrangement.

The historic right-of-way of a tramway began just south of the furnace stacks and headed west, following what is presently State Route 305. The right-of-way was approximately three feet wide. It crosses the park road then is disturbed by the location of Route 305 near the site of the mill. On the south side of Route 305 the tramway right-of-way is visible. One half mile west of the mill site the tramway crosses Route 305 and heads west on the north side of the road. The right-of-way is a clearly visible, level path through a densely wooded area. In general, the immediate right-of-way has been kept clear of growth although a few young trees have sprouted. It may be followed for approximately two and a half miles from the point at which it

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Section number 7

Greenwood Furnace 5

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crosses the road north. Along the last 3/4 of a mile, mines and spoil piles are visible to either side of the right-of-way.

In the westernmost part of the district, extending from the tram right-of-way are the iron mines and their tailings. These are cuts into the hillside with rubble stone extending from the end. The whole western area is heavily wooded.

Non-contributing buildings and structures located within the boundaries consist of a twentieth century nursery office and three nursery buildings. The office and two of the nursery buildings are one story frame structures with German siding over plank and are used for storage. The building behind the meat house is a one story garage built of vertical planks and has a gable shingle roof.

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Section number 8

Greenwood Furnace 2

SIGNIFICANCE:

Greenwood Furnace Historic District is being nominated under criterion A because of its importance in the area of industry in Huntingdon County. Some components contribute to the district under criterion D for the information they may yield. The furnace was established in 1834 and operated until 1904 as the last charcoal iron furnace in the county. Soon thereafter it was purchased by the Commonwealth for a tree nursery. The remaining contributing buildings, structures and site are good representatives of the iron plantation subtype of resources associated with iron production in Huntingdon County.

Greenwood Furnace was established in 1834 by Norris, Rawle & Co., entrepreneurs from southeastern Pennsylvania who had recently acquired the Freedom Iron Works near Lewistown, Mifflin County. Their intention was to produce pig iron at Greenwood for refining at Freedom Forge. The availability of large tracts of virgin timber to supply charcoal to the furnace apparently dictated Greenwood's remote location. Originally, iron ore and some of the limestone needed was hauled to the furnace from the Mifflin County side of Stone Mountain, and the iron hauled some thirteen miles back over the mountain to the forge. Later, discovery of ore deposits closer to the furnace eliminated some of this difficult labor.

The stone blast furnace stack was first assessed in 1835, at \$10,000, and by 1850 the operation employed 73 men and 34 horses and mules in annual production of 1600 tons of pig iron, worth \$35,000. Total capital investment had risen to \$40,000 in 1850. Ownership of the enterprise passed in 1849 to John A. Wright & Co., whose principal owner was the same John Wright then engaged in laying out and promoting the new railroad center of Altoona.

In 1857, a reorganized Freedom Iron Co. (in which John A. Wright remained an important figure) resumed ownership, and the operation expanded to a total capital investment of \$100,000, 140 employees, and production of 1800 tons of iron in 1860. A second furnace was erected in 1868, resulting in an 1870 report of \$400,000 capital invested, 230 men employed, and production of 3096 tons of iron, worth \$154,000, making it the county's largest iron operation.

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Section number 8

Greenwood Furnace 3

Freedom Iron Co. became Logan Iron and Steel Co. in 1872, and continued to operate Greenwood Furnace until 1904. It was the last Huntingdon County charcoal furnace to go out of blast. Its longevity can certainly be credited in part to the parent company's utilization of Greenwood iron in the production of rolled and bar iron at its extensive Mifflin County works. The operation there gave rise to (and operated concurrently with) Standard Steel Co., manufacturers of steel railroad wheels, which survives today at Freedom Iron Company's original location near Lewistown.

The Pennsylvania Department of Forest and Waters acquired the Greenwood Furnace lands for reforestation soon after the last blast in December 1904. A State tree nursery was established at Greenwood in 1905, and a State park in 1930. Both have erected structures on their lands which have historical interest of their own. The park dam is included in a National Register listing of CCC projects in Pennsylvania but is not included within the boundaries of this historic district nomination.

Greenwood Furnace is the county's most complete and best-preserved iron furnace plantation site and is open to the public. The stacks, church, and cemetery, along with several non-contributing buildings and structures outside of historic district boundaries, are maintained as historic sites and interpreted for park visitors.

Archaeological investigation of the below and above ground remains of the furnace site has the potential to yield information important to the understanding of the operation of an iron plantation. Further field research at the workers' house foundations may provide additional understanding of the community life. Archeological work in the vicinity of the stacks may clarify our perception of the production of charcoal iron. Excavations at the historic locations of the tavern and the mill may provide interpretation of their respective roles in the community by defining the time span in which they were in use. The recordation of the iron mines will permit comparison of mining techniques with similar iron operations thereby expanding our knowledge of such sites.

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Section number 9

Greenwood Furnace 2

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SOURCES:

Africa, J. Simpson. History of Huntingdon and Blair Counties, Pennsylvania (Philadelphia: Louis H. Everts, 1883), pp. 297-98.

Heberling, Paul. Archaeologist-Juniata College. Interview, August 1988.

History of the Susquehanna and Juniata Valleys (Philadelphia: Everts, Peck & Richards, 1886), pp. 548-50.

Huntingdon County, Pennsylvania: An Inventory of Historic Engineering and Industrial Sites, Historic American Building Survey/Historic American Engineering Record, National Park Service(unpublished, 1988).

Huntingdon County Tax Assessments for Barree and Jackson Townships, 1834-1876. [at Huntingdon County Historical Society]

Shedd, Nancy S. HAER consultant 1988, President Huntingdon County Historical Society, interviews 1988-1989.

Smith, James O., and Hawn, G. Merle. The Valley and the Fort (McAlevys Fort: Stone Valley Civic Group, 1978), last 26 unnumbered pp. on Greenwood Furnace.

U.S. Census. Products of Industry, 1850, 1860, 1870. [Microfilm, Pennsylvania State University Library]

Wolfe, Barry. Superintendent, Greenwood Furnace State Park. Interview, 15 July 1988.

Further information available: Department of Environmental Resources, Bureau of State Parks (Engineering Section) and Bureau of Water Projects, Harrisburg, Pa.

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CONTINUATION SHEET

Section number 10

Greenwood Furnace 2

UTM continuation

E	18	267520	4503475	Barrsville Quad
F	18	267810	4503318	McAlevys Fort Quad

VERBAL BOUNDARY DESCRIPTION:

The boundary begins 18 1/2 miles east of McAlevys Fort on the north side of State Route 305 at the northeast corner of the intersection of 305 with a dirt road. The boundary heads northeast approximately 1700 feet to the height of land on Brush Ridge where it heads south/southeast for 1/2 mile to the north side of the intersection with the right-of-way of the historic tramway. The boundary of the north side of the district then follows east along the northern edge of the tram right-of-way, crossing to the south of Route 305 approximately 1 and 1/2 miles from the point where the boundary intersects the right-of-way then continuing along the northern edge of the right-of-way for another half mile. At that point the boundary turns north 30 feet, then east 50 feet then south approximately 30 feet returning to the north side of Route 305 right-of-way which it follows for 1800 feet. The boundary then turns north along the east side of State Park road to a point 1000 feet north of Route 305 on the east side of the state park road. At that point the boundary turns slightly east and follows a creek's east bank about 500 feet north to a point where the boundary turns and follows the contour line northeast for approximately 3/10ths of a mile to an unnamed stream. At the stream the boundary drops south following the east edge of dam remains and then the west bank of a second stream (which converged at the first by the dam) then continued south for a total of approximately 1/5th of a mile to a point approximately 50 feet north of the northeast corner of the garage/shed where the boundary turns west for about 50 feet then south for about 50 feet to the northern edge of Route 305. The boundary then follows the edge of the road west for about 1/10th of a mile. The boundary then proceeds south along the western edge of a service road for 100 feet where it turns westerly and parallels the south wall of the church at a distance of about 10 feet then turns north and parallels the west of the church wall at about ten feet for 25 feet. From that point the district perimeter parallels Route 305 in a westerly direction for approximately 150 feet at a distance of 30 feet from the south side of the road. The district limit moves north to the southern edge of Route 305, then proceeds west along the southern

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Section number 10

Greenwood Furnace 3

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edge for 3/10ths of a mile to the cemetery. The boundary moves south/southeast for approximately 125 feet, then moves south/southwest for approx. 50 feet then returns north/northwest to the southern perimeter of the tram right-of-way, located south of Rte. 305, thereby encompassing the cemetery and the mill ruins. The boundary then continues to follow the southern edge of the right-of-way in a westerly direction for 1 and 4/5ths miles crossing to the north side of Route 305 at a point one half mile from the cemetery. The boundary then extends south from the tram right-of-way to a point 100 feet south of Route 305 which it then parallels at a distance of 100 feet for about 1 mile to the east edge of a tarred road which it then follows north to the southeast intersection of the tarred road and Route 305. The boundary then proceeds north across Route 305 to the point of beginning.

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Section number 10

Greenwood Furnace 4

BOUNDARY JUSTIFICATION:

The boundaries encompassing this historic district include those buildings, structures and above and below ground remains which retain physical integrity and can be associated with the production of iron at Greenwood Furnace.

The westernmost part of the district on the south side of Brush Ridge extends to contain the abandoned iron ore mines and associated tailings for the furnace as determined by examination of the State Geological Survey map of the Stone Mountain Fault drawn in 1887 and by site visit. Those areas where no mining remains were identified were excluded from the boundary. The right-of-way for the tram used to transport the ore from the mines to the furnace not only runs through the district from west to east but its' edges define the boundary between the western section of the district and the location of the tavern and mill. East of the tavern and mill remains the tram right-of-way is difficult to track due to road and park maintenance therefore the right-of-way of Route 305 will serve as the boundary. The boundary extends out from the right-of-way to include the foundation remains of the tavern, the mill and the cemetery, however, vacant land with no remains was excluded.

The easternmost section of the district follows both manmade and natural features to include those components considered to be contributing to the district. The boundary on the west side of the eastern portion of the district excludes the noncontributing park office, the blacksmith shop, and the bookkeepers house. The north side follows the contour line immediately north of the stone foundations of workers housing. The east side follows the dam remains and continues along the creek and cuts down to exclude a garage/shed just outside the southeast corner of the eastern portion of the district, and on the south the boundaries are extended to include the church and foundation remains of a row of workers housing while excluding a noncontributing garage.

Several historically associated structures remain standing in the park such as the bookkeepers house and the blacksmith shop but have been excluded from within the boundaries of the historic district as a result of their lack of physical integrity.

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**National Register of Historic Places
Continuation Sheet**

Greenwood Furnace

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This nomination contains material taken directly from the unpublished report prepared in 1988 for the Historic American Engineering Record (see Bibliographical References).

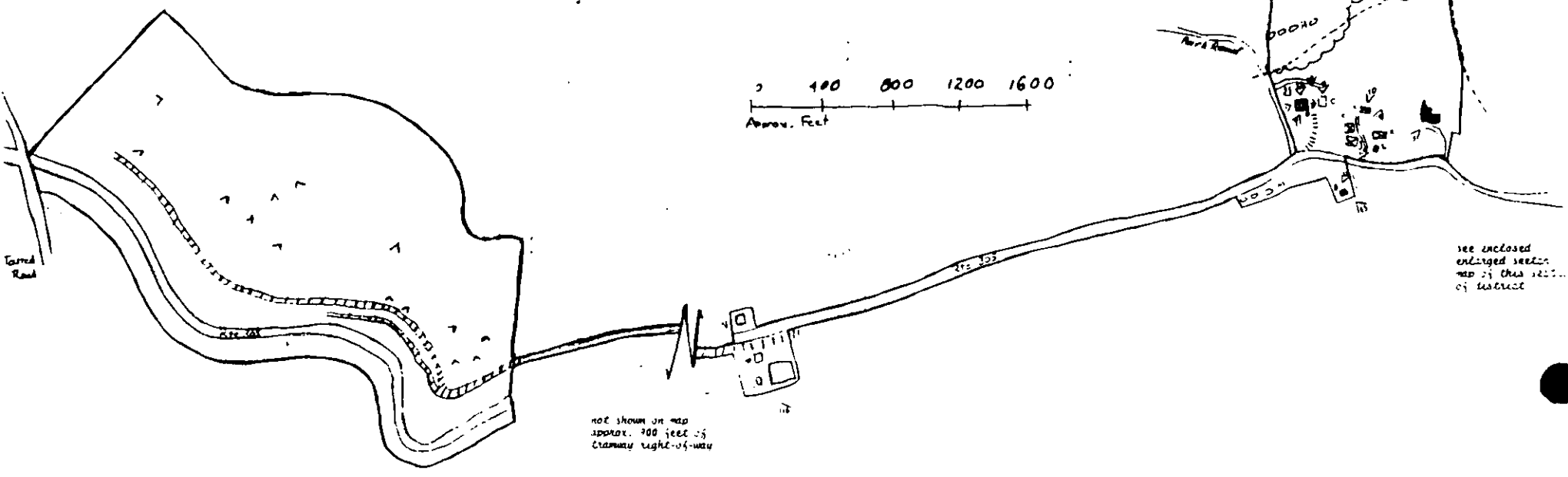
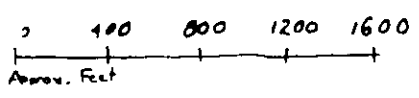
The author of that report, Nancy Shedd, is a major contributor to the text of this nomination although not the preparer.

GREENWOOD FURNACE

- contributing structure, bldg.
- noncontributing structure, bldg.
- foundations
- pile
- tram right-of-way
- wooded area
- ▷ photo number & angle
- ▲ well openings

L - Logan's Mills Mansion
 B - Church
 C - Stack #1
 D - Stack #2
 E - Saw remains
 F - Callisto Row remains
 G - Shiloh Row remains
 H - Creek Row remains
 J - Machinery Office
 K - Machinery Buildings
 L - West House
 M - Foundations
 N - Tavern Site
 P - Mill Site
 Q - Cemetery

Lackey Township, Muncie County, Pennsylvania



not shown on map
 approx. 700 feet of
 tramway right-of-way

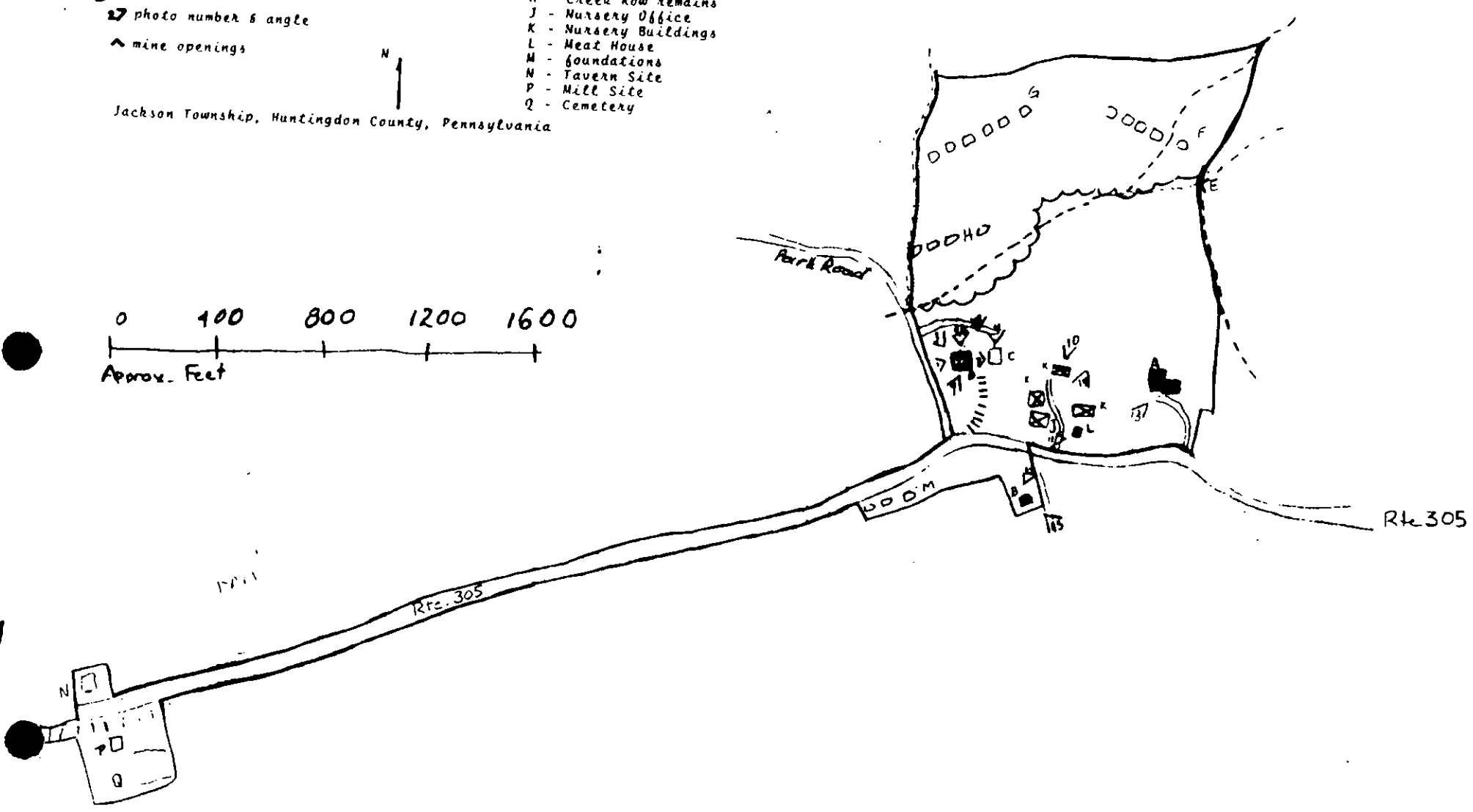
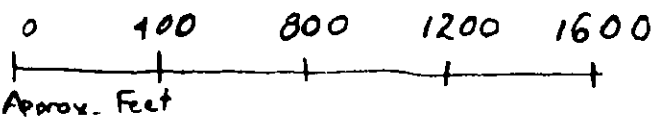
see enclosed
 enlarged section
 map of this section
 of district

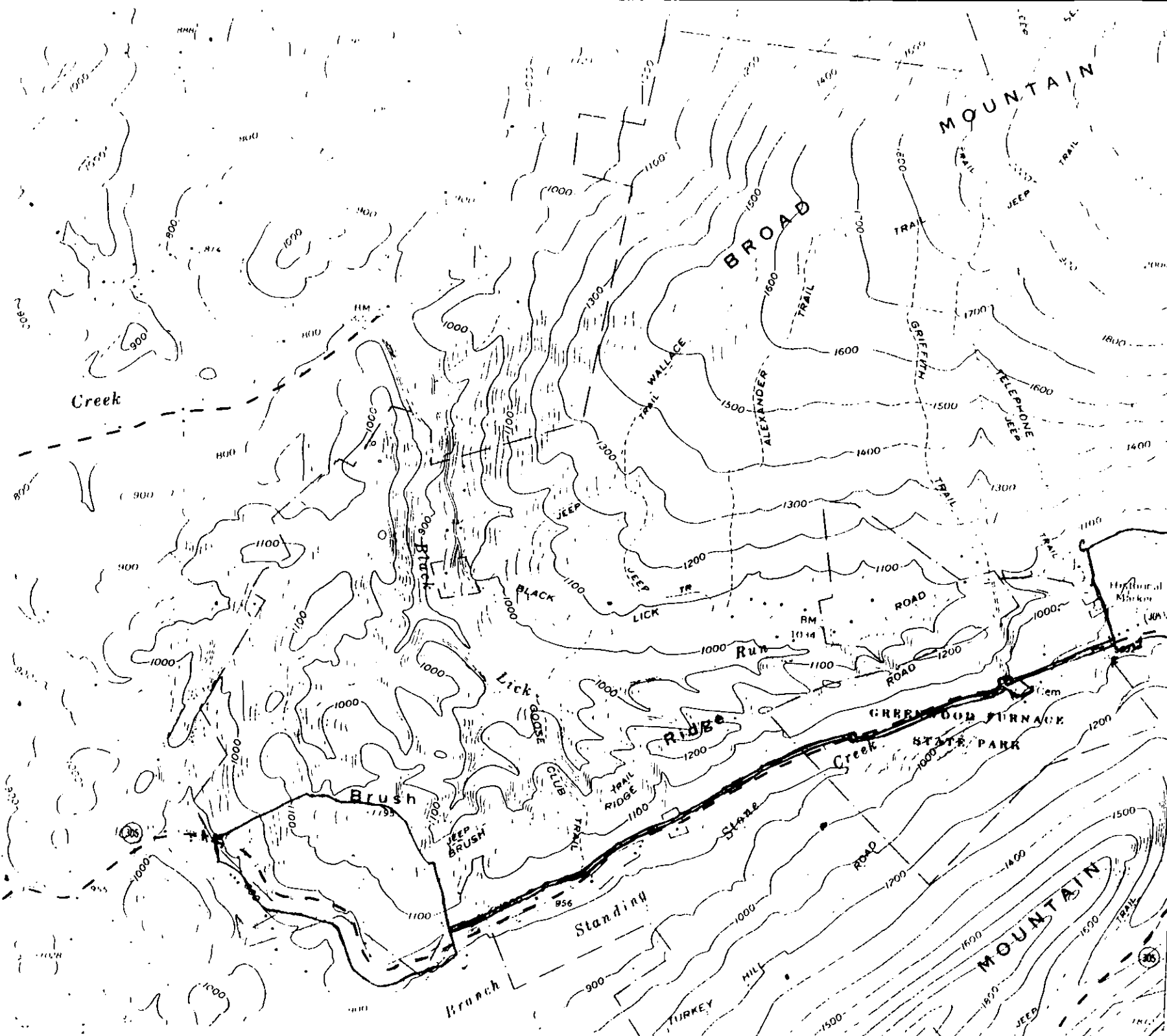
■ contributing structure/bldg
□ noncontributing structures/bldg.
□ foundations
- stream

tram right-of-way
wooded area
photo number & angle
mine openings

- A - Ironmasters Mansion
- B - church
- C - stack #1
- D - stack #2
- E - dam remains
- F - Colliers Row remains
- G - Griffith Row remains
- H - Creek Row remains
- J - Nursery Office
- K - Nursery Buildings
- L - Meat House
- M - foundations
- N - Tavern Site
- P - Mill Site
- Q - Cemetery

Jackson Township, Huntingdon County, Pennsylvania





406
405
404
403
402

GREENWOOD FURNACE
HUNTINGTON Co
MEALEYS FORT QUAY

ZONE 18

162720	N 450240
26390	45018
27122	45030
267495	45033
267520	45034
267810	45034

