



Illinois Iron Furnace Historic Site



Shawnee National Forest

Hidden Springs Ranger District

2008

The Illinois Iron Furnace is the only remaining iron furnace structure in the state of Illinois. Iron was manufactured at the Illinois Furnace by the charcoal blast method. The furnace was built on a dry laid limestone foundation. The exterior of the furnace was manufactured of large limestone blocks quarried near the town of Cave-In-Rock. The interior wall, or lining, was constructed of firebrick from Pennsylvania. The space between the interior and exterior walls was filled with sandstone. Wrought iron binders were placed through the stonework and tightened to secure the walls. All of the stonework was dry laid to allow for expansion when the furnace was in blast.

It took approximately forty men working in two shifts to keep the furnace in full blast. Workmen at the furnace included a general manager, at least two founders, a chief filler with five to seven assistants, a keeper and one or more helpers, a molder, a gutterman with four or five helpers, and five or six miscellaneous laborers. Workmen away from the furnace included many woodchoppers, colliers, iron ore miners, limestone quarrymen and teamsters.

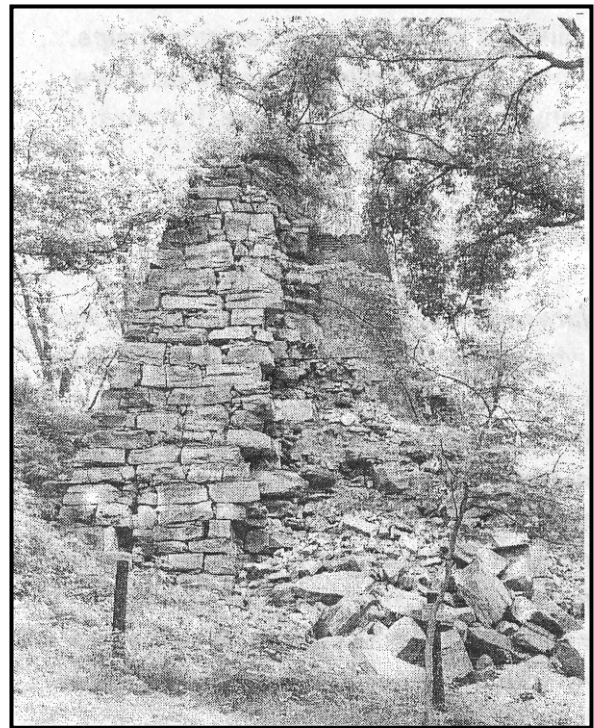
A.H. Worthen recalled production at the Iron Furnace:

It was built about 1837, and rebuilt and enlarged in 1856, and continued operations until the beginning of the rebellion in 1861, when it stopped. It was 32 feet in height; the hearth and inner walls were built of the sandstone, and the outer walls of limestone. The blast entered the hearth on one side, while the iron was drawn from the opposite side and the slag from a third, while the fourth was closed. The blast entered was furnished by two horizontal double-acting cylinders, driven by steam power, and could be applied either hot or cold. The flame at the top of the furnace was conducted under a steam boiler, then around a heating apparatus for the blast, and escaped thence through a chimney. The ore was first burned on log heaps, to expel the water and prepare it for the furnace. Two hundred bushels of charcoal from oak and other hardwoods, were consumed in the production of a ton of pig iron. The furnace is said to have yielded nine tons of pig metal every twenty-four hours. It was usually run from six to nine months in the year, according to the facility with which the ore was obtained. The metal produced was of excellent quality, and always commanded the highest market price.

The iron castings called “pigs,” were transported to Elizabethtown along the Ohio River. From there it was shipped out to manufactures.

Worthen indicates the Illinois Iron Furnace shut down in 1861. Although there was a need for iron during the Civil War, the lack of men to work at the furnace may have hampered attempts to smelt iron during and after the War. The furnace appears to have been in operation sporadically between 1872 and 1879. In August 1880, the Illinois Iron Furnace was “blown in” and manufacturing continued through 1887.

The furnace was partially destroyed in the 1930’s to supply rock rubble for the embankments of the Hog Thief Creek Bridge built by the CCC. The current appearance of the Illinois Iron Furnace is due to a reconstruction in 1967. The reconstructed furnace core is solid, having been filled with rubble and concrete.

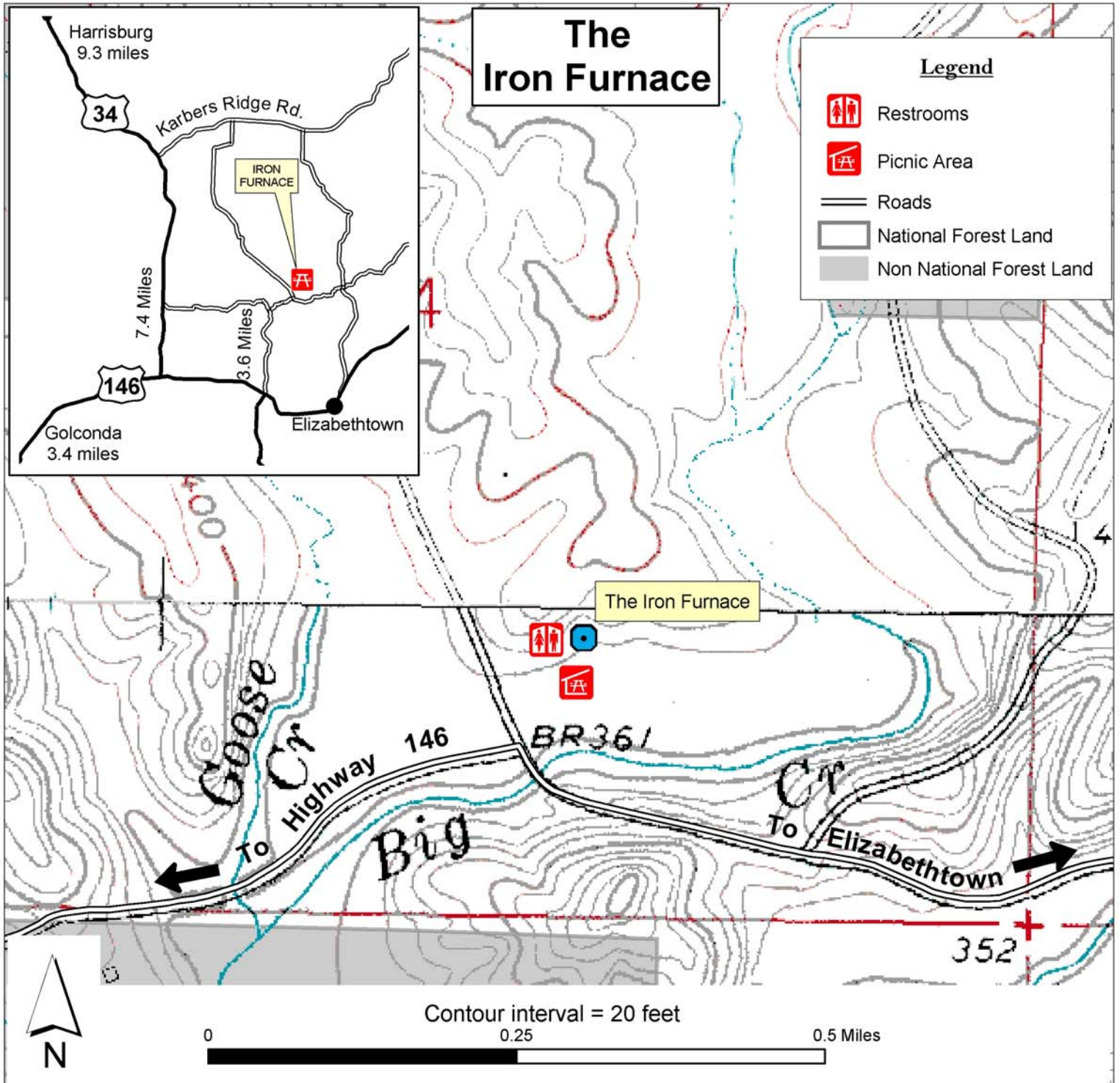


Illinois Iron Furnace before reconstruction

For More Information

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www.fs.fed.us/r9/forests/shawnee



Recommended Season: All year - Site open daily 6am – 10pm

Facilities: Accessible picnic shelter, vault toilets, interpretive signs.

Access: From Harrisburg take Highway 34/145 south 6 miles, then continue on Highway 34 south for 16 miles to Highway 146. Go east on Highway 146 for 3.5 miles to Iron Furnace road, turn north and follow the directional signs to the historic site.

Safety: Climbing the Iron Furnace is not only dangerous, but prohibited.

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