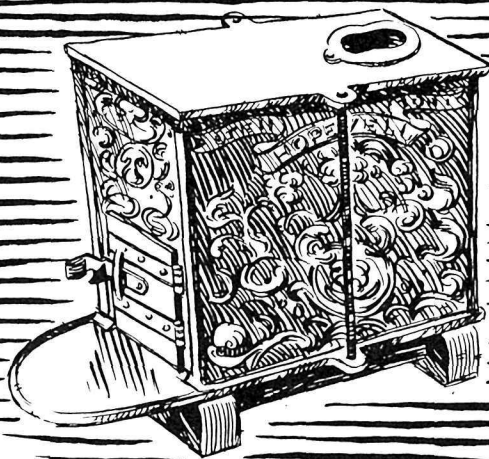
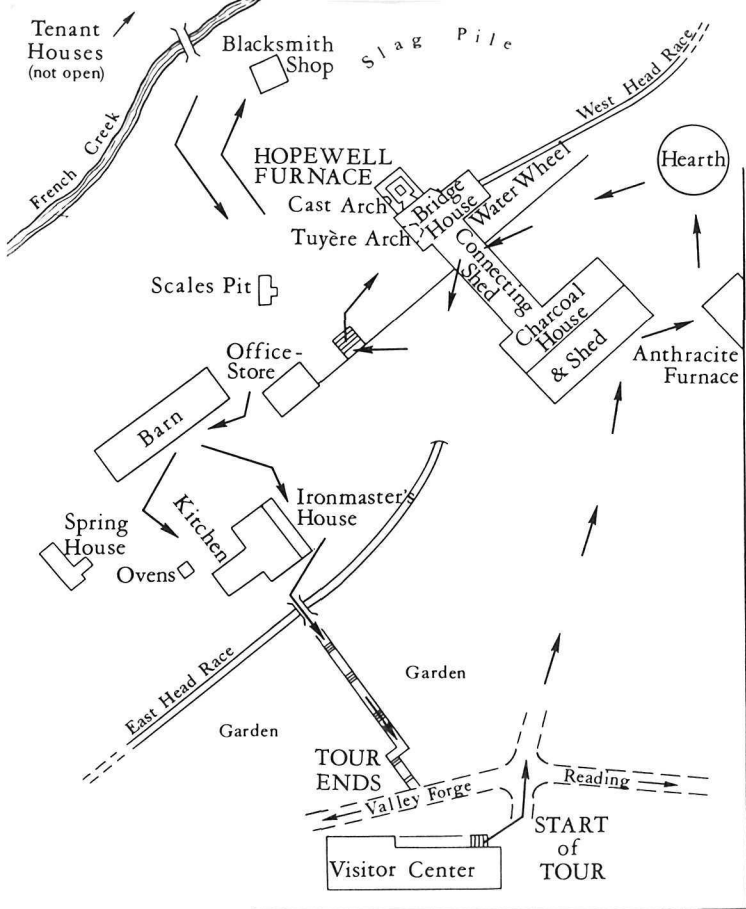


Exploring HOPEWELL VILLAGE



A six-plate Hopewell stove

... a tour guide



Hopewell Village is one example of the hundreds of ironmaking communities that produced America's iron in charcoal-burning blast furnaces before 1840. While you are here, be sure to see the museum in the Visitor Center: Exhibits, samples of ironwork, and a slide talk tell the story of Hopewell, its people, and the charcoal iron industry--the iron industry of young America.

Now, using the tour map as a guide, you are ready for a stroll through Hopewell Village.

ROADS.--Village roads mark historic wagon roads. The one you cross to enter the village is the 1757 Valley Forge-Reading Road. It also went to Birdsboro and to the Schuylkill River and Canal.

CHARCOAL, SHED AND HOUSE.--Hopewell Furnace used charcoal fuel, the product of charred wood. Charcoal was made in nearby hardwood forests. While still hot, it was hauled into this open shed in wagons, which were dumped by pulling out the bottom boards. When it cooled, the charcoal was stored in the charcoal house.

ANTHRACITE FURNACE.--Just past the charcoal shed are the ruins of an anthracite furnace. Built in 1853, this was Hopewell's attempt to use a new iron-making technology imported from Britain some years before. This furnace, somewhat larger than Hopewell Furnace itself, used hard-coal fuel and a hot blast. It produced more iron than the older charcoal furnace could. But it could not compete with anthracite furnaces nearer the coal fields. So it was soon closed down, and Hopewell Village turned back to its charcoal furnace.

The general switch to anthracite fuel, and thus to furnaces nearer the large coal fields, would eventually doom Hopewell. Meanwhile, it would continue to produce charcoal iron, whose special qualities would for a time outweigh its higher price.

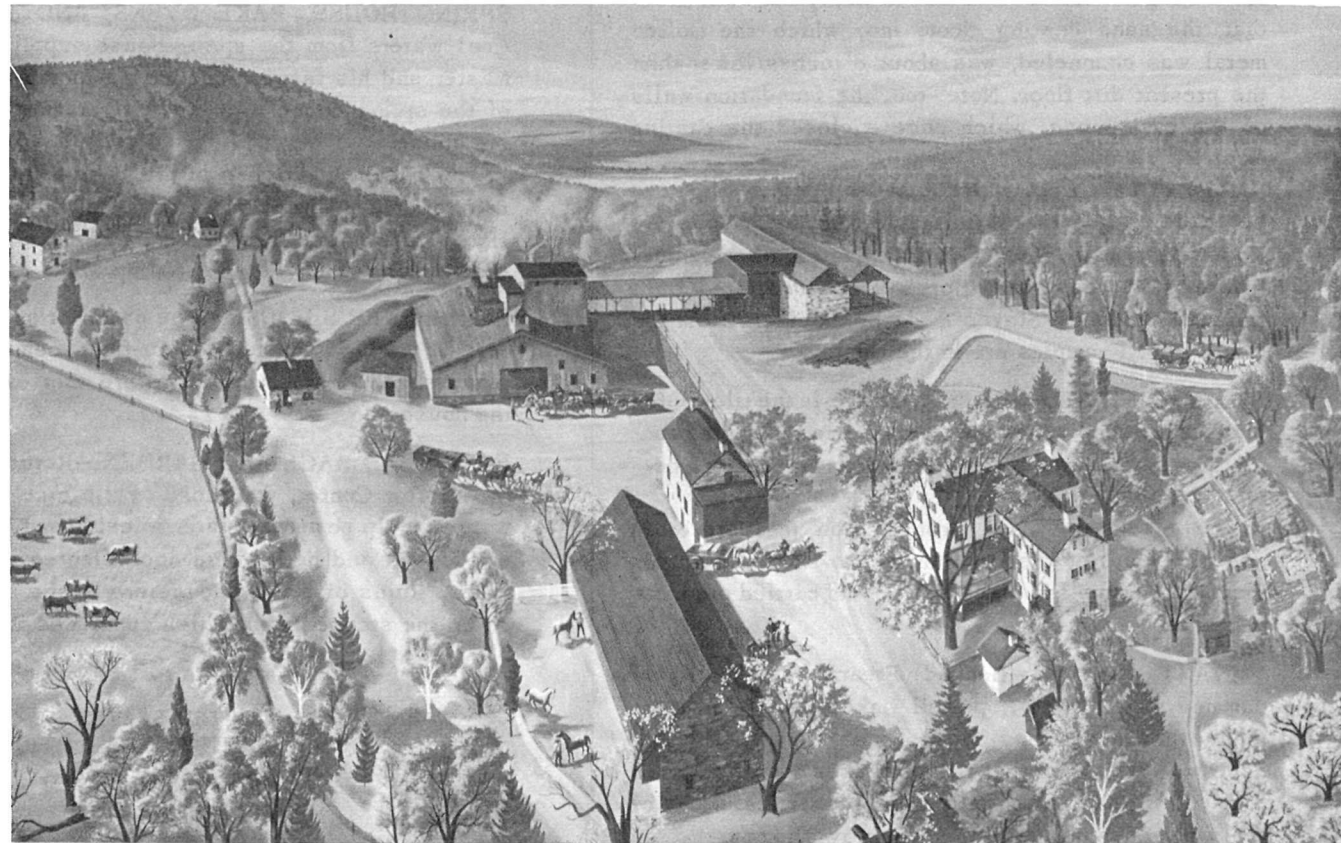
CHARCOAL HEARTH.--On hearths like this, cordwood was piled in large mounds, then covered with leaves and dirt. The wood burned or charred slowly because oxygen was scarce in the pile. This made

charcoal, the fuel for the blast furnace. It took about two-thirds of an acre of hardwood forest to make enough charcoal for one day of furnace operation. This process of "coaling" was done in the woods from March through November. The colliers lived in nearby huts and kept constant watch to keep the pile from burning up.

WATER WHEEL AND BLAST MACHINERY.--Water from Hopewell Lake comes through the West Head Race to turn this water wheel. As it turns, the wheel operates the blast machinery. The rods attached to the axle of the water wheel move pistons inside the wooden tubs, forcing air into a box between the tubs. From the box, the blast passes through the pipe to the furnace. This blast of air fanned the flame in the furnace, speeding the iron-making process: The more iron the more profit.

CONNECTING SHED AND BRIDGE HOUSE.--Charcoal for immediate use was dumped under this open shed.

Hopewell Village as it probably looked in the 1830's. Barn, foreground; "big house," right; furnace group, center (note that cast house encloses furnace); Hopewell Lake in background. You enter the village from the right on path bordered by white fence.



The rest of the furnace charge--iron ore and limestone--was stored near the charcoal house. Two workers called fillers brought the ore and charcoal through the bridge house and dumped it into the hole at the top of the furnace. Each man worked a 12-hour day. Every 24 hours the fillers put in about 380 bushels of charcoal, 4½ tons of ore, and some limestone. This charge made 2¼ tons of iron.

From the connecting shed you can walk along the furnace bank and go down the steps to the lower level where Hopewell Furnace stands.

TUYERE (twee-YAIR) ARCH.--Here, under the bridge house, you can see how the blast of air is carried by the pipe into the furnace, entering through the tuyere arch. If you put your ear close to the pipe, you can hear the air rushing through it as the pistons move.

CAST ARCH OF FURNACE.--Liquid slag--impurities of the ore combined with limestone--was first drawn over the dam stone, which is the lowest stone visible between the iron posts. Molten iron was then tapped through a hole in the bottom of the dam stone, and crude castings called "pigs"--convenient for shipping and storage--were made as shown in the museum. (Note that the sand casting floor, into which the molten metal was channeled, was about 8 inches lower than the present dirt floor. Note, too, the foundation walls of the cast house, which once enclosed the casting floor.)

Pigs of cast iron, which were shipped to forges to be made into bars of malleable wrought iron, were Hopewell's main product. For a quarter of a century before 1845, however, Hopewell concentrated on a finished product: Stoves made by moulders from the liquid iron. Examples are in the museum.

BLACKSMITH SHOP.--Near the bridge is the tile-roofed blacksmith shop. These are period tiles; note the runoff grooves that the potter made with his fingers before baking the clay.

The blacksmith used wrought iron to make tools and hardware for the community. He shod the horses that hauled supplies to the village and carried products to market.

TENANT HOUSES.--Beyond French Creek, whose dammed waters form Hopewell Lake, are four of more than a dozen company houses once occupied by furnace workers. The other tenant houses were scattered over the 5,000 acres of furnace properties. Most of the workers, however, owned their own homes.

SCALES PIT.--Returning toward the center of the village, you will pass the scales pit where wagonloads of iron ore and castings were weighed. The wooden platform corresponds to the platform you stand on when being weighed in a doctor's office.

OFFICE-STORE.--The office was the nerve center of the village. Here a clerk kept the records of making and selling iron. The store sold nearly everything needed by the workers and their families, and also supplied many neighbors of Hopewell.

BARN.--Products and supplies of Hopewell Village were hauled in horse-drawn wagons. Even this large barn was too small to shelter enough horses and their feed, so horses and wagons were hired--more than half of the hauling was hired out in 1830. Stables are on the lower level; mows for hay and grain are above.

The modern carriages in the mows were not connected with ironmaking at Hopewell. They were the property of Edward Brooke, who owned Hopewell at the turn of the century.

From the barn, you can make a short loop to visit the spring house, bake ovens, and kitchen, or you can go directly to the front entrance of the "big house."

SPRING HOUSE, BAKE OVENS, AND KITCHEN.--Cool waters from the spring house supplied the ironmaster and his family. The trough in the middle room of the spring house was the refrigeration unit for the big house.

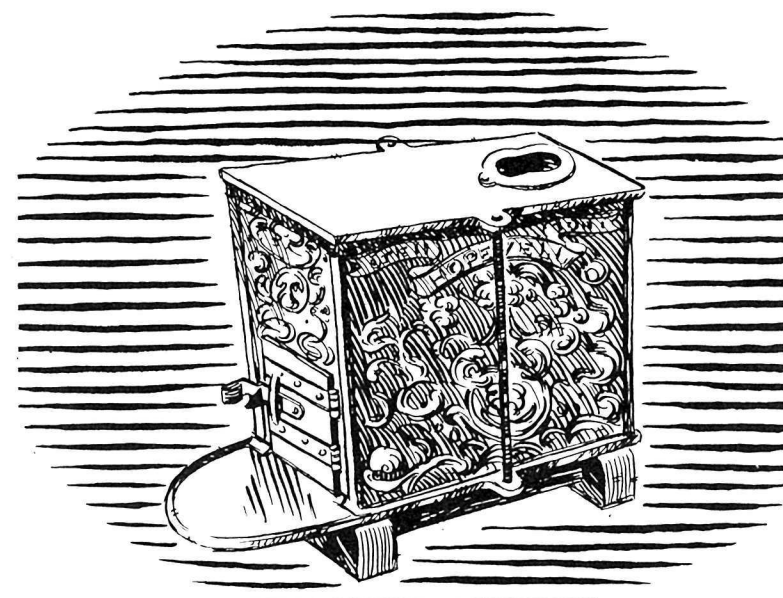
The basement kitchen in the back of the big house is furnished with cooking utensils of the early period. Here bread dough was mixed to be baked in the outside ovens, which were heated by wood fires.

IRONMASTER'S HOUSE.--The owner or manager lived here in the big house. Three 1st-floor rooms have been refurnished. Most of this furniture was once used in the house.

EAST HEAD RACE AND GARDEN.--Returning toward the Visitor Center, you cross over a race that carried water to help power the water wheel from 1770 to 1883.

Flowers and herbs were once planted in these terraces. Ruins of a greenhouse are to the right as you go up the stepped walk which concludes the tour.

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