

THE CASTING PROCESS

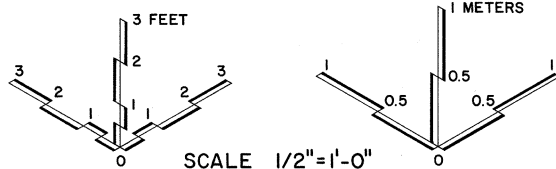
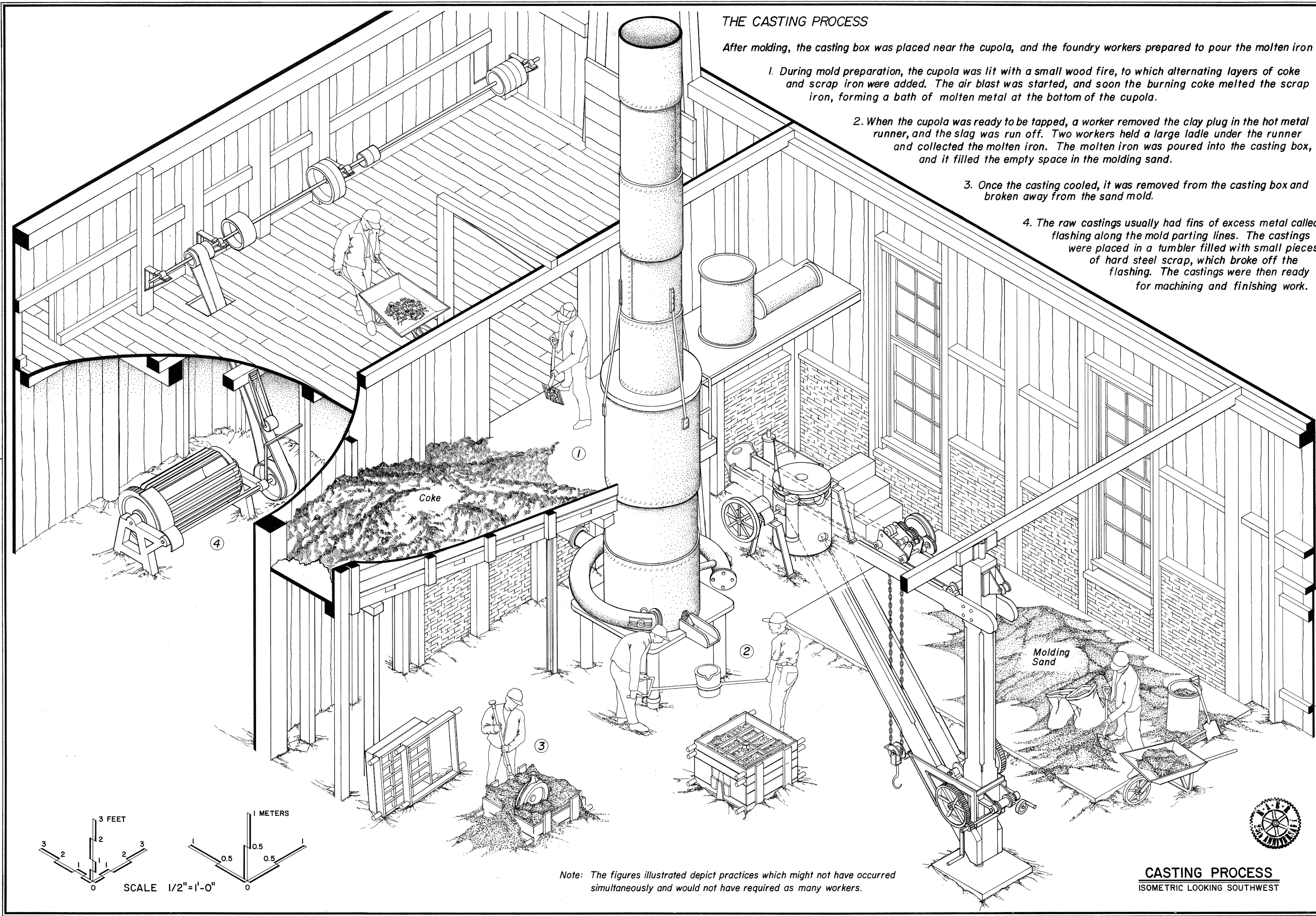
After molding, the casting box was placed near the cupola, and the foundry workers prepared to pour the molten iron

1. During mold preparation, the cupola was lit with a small wood fire, to which alternating layers of coke and scrap iron were added. The air blast was started, and soon the burning coke melted the scrap iron, forming a bath of molten metal at the bottom of the cupola.

2. When the cupola was ready to be tapped, a worker removed the clay plug in the hot metal runner, and the slag was run off. Two workers held a large ladle under the runner and collected the molten iron, and it filled the empty space in the molding sand.

3. Once the casting cooled, it was removed from the casting box and broken away from the sand mold.

4. The raw castings usually had fins of excess metal called flashing along the mold parting lines. The castings were placed in a tumbler filled with small pieces of hard steel scrap, which broke off the flashing. The castings were then ready for machining and finishing work.



Note: The figures illustrated depict practices which might not have occurred simultaneously and would not have required as many workers.

CASTING PROCESS
ISOMETRIC LOOKING SOUTHWEST



DELINEATED BY: ROBERT DIXON, ISABEL YANG, THOMAS BEHRENS, 1994
 SOUTHWESTERN PENNSYLVANIA RECORDING PROJECT
 NATIONAL PARK SERVICE
 UNITED STATES DEPARTMENT OF THE INTERIOR

EAST BROAD TOP RAILROAD & COAL CO. FOUNDRY c.1885
 PA. STATE ROUTE 994 (MEADOW STREET) WEST OF U.S. ROUTE 522
 ROCKHILL FURNACE (ORBISONIA) HUNTINGDON COUNTY

HISTORIC AMERICAN ENGINEERING RECORD
 SHEET 4 of 4
 PENNSYLVANIA PA-127-D

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