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## **Brief History of Birmingham, Alabama Iron and Steel Making**

Antebellum production of iron in charcoal furnaces was carried out at several locations in Alabama including the Tannehill, Brierfield, and Oxmore Furnaces. They provided vital materials to the Confederacy. After the Civil War, the unique combination of large deposits of iron ore, coal, and limestone in the Birmingham area made it the center of iron and steel production in the Southeastern U.S. for over a century.



Brierfield Iron Works, ca1905. (Library of Congress)

The first production of iron using coke as the fuel was at the rebuilt Oxmore Furnace in 1876. The 1880's saw rapid expansion with the formation of the Sloss Furnace Company, Tennessee Coal, Iron, and Railroad Company (TCI), Woodward Iron Company, the Pioneer Mining and Manufacturing Company, and the DeBardeleben Coal and Iron Company. Pig iron was the main product because of the high phosphorous content of the iron ore from the nearby mines on Red Mountain. Production found a ready market in the foundries at Atlanta.

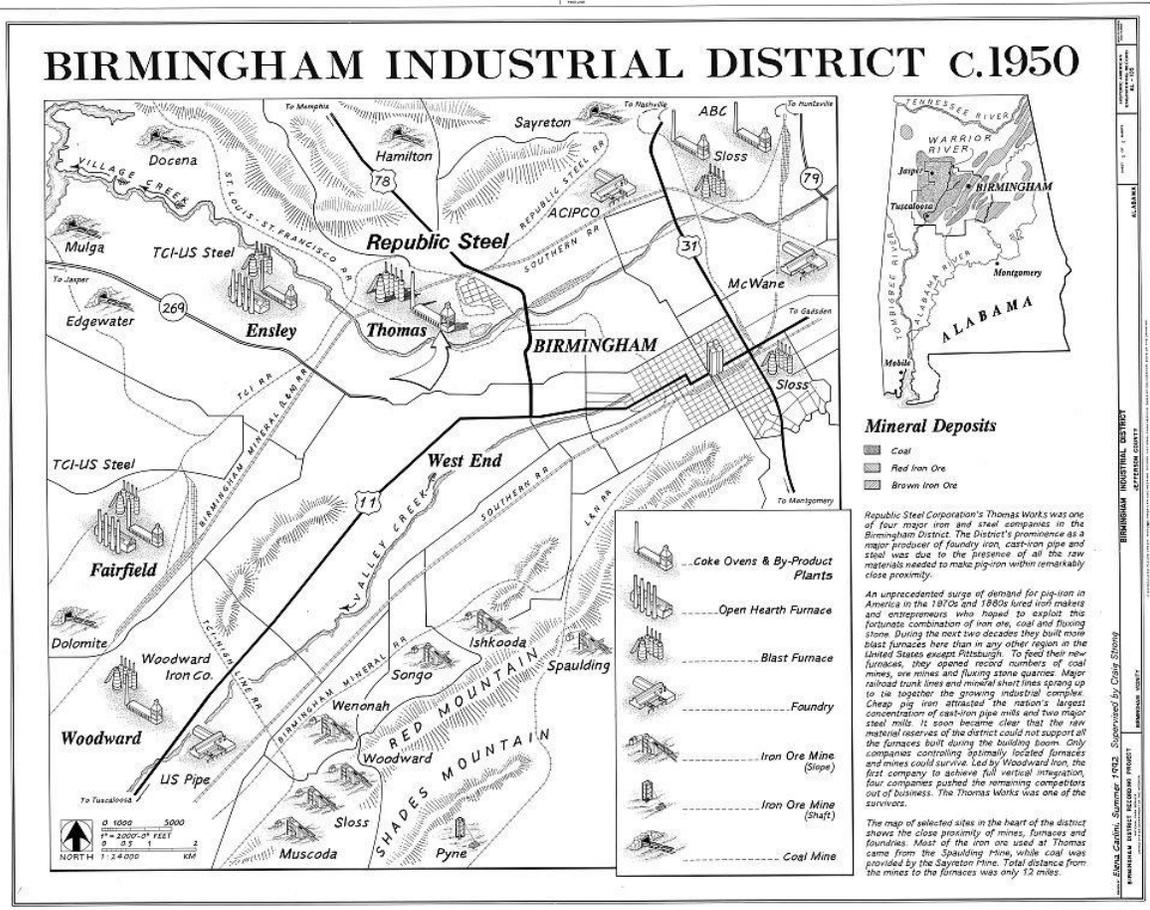


Woodward Iron Company, Opossum Creek Works, Bessemer, AL, ca1960.. (Library of Congress)

The 1890s was a period of depression and consolidation in the industry. DeBardeleben merged with TCI. Sloss became the Sloss-Sheffield Steel and Iron Company. Pioneer became part of the Republic Iron and Steel Company. When United States Steel (USS) was formed in 1907, it soon acquired TCI. USS/TCI also built a new plant at Fairfield. It supplied the nearby USS American Steel and Wire plant. During World War I, USS/TCI and Woodward modernized their coke ovens to recover chemical byproducts. Sloss-Sheffield did the same and was acquired by Allied Chemical and Dye Corp.

Two factors helped and hindered the producers in the Birmingham area. From Reconstruction to the early 1900s, the mines and mills used leased convict labor as a substantial portion of the workforce to keep costs down. USS/TCI ended this practice in 1912; however, other companies continued the practice until it was eventually outlawed in 1928. On the other hand, USS kept TCI iron priced higher to prevent competition in its markets for Pittsburgh production.

The Great Depression crippled the Birmingham mining and metals industries. Production plummeted and what had largely been a non-union workforce began to organize. World War II finally brought the industry out of its slump. USS/TCI built a new blast furnace at Fairfield and the plant became a fully integrated steel mill. United States Pipe and Foundry Company (USPF) bought the Sloss-Sheffield operations from Allied Chemical and developed a massive new blast furnace. The industry reached its peak in the 1950s with over 45,000 workers. However, the post-war period brought increasing competition from new plants in Germany and Japan.



“Birmingham Industrial District c.1950” map. (Library of Congress)

By the 1970s the industry with its aging infrastructure was in big trouble. Woodward went out of business. USPF became part of Jim Walter Corporation which saw the coal market more lucrative than the steel business. It shut down the new USPF furnace in 1980. Only the USS/TCI Fairfield Works survived. In 2006, the plant had one blast furnace and three basic oxygen furnaces manned by 2000 employees. The Fairfield Works blast furnace was dismantled in 2017; however, USS continues to operate a tubular products (pipe) plant and a 2020 Electric Arc Furnace (EAF) making steel from recycled scrap.



Hot Metal from the furnace at the U. S. Steel, Fairfield, AL Works, ca1960. (Alabama Archives)



Electric Arc Furnace (EAF) at the U. S. Steel, Fairfield, AL Works, 2020. (U. S. Steel)

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