Industrial Development of the City of Pittsburgh

The Forks of the Ohio (1747 - 1763)

One of the first Europeans to set eyes on the area that would become the city of Pittsburgh was George Washington. Alarmed at French incursions in the Ohio River valley, English Governor Robert Dinwiddie of Virginia sent then-Major George Washington to order a French withdraw from the area. Washington arrived at the Forks of the Ohio on November 25th, 1753 and recorded the following impressions in his journal:

“As I got down before the Canoe, I spent some Time in viewing the Rivers, & the Land in the Fork, which I think extreamly well situated for a Fort; as it has the absolute Command of both Rivers. The Land at the Point is 20 or 25 Feet above the common Surface of the Water; & a considerable Bottom of flat well timber’d Land all around it, very convenient for Building.”

Upon meeting the French near Erie, PA Washington was swiftly rebuffed. Dinwiddie then sent Captain William Trent to build a fort at the forks of the Ohio. Trent’s fort would be the first European habitation at the site of present-day Pittsburgh. The fort, named Fort Prince George, was only half-built by April 1754 when over French forces arrived and sent the 40-some colonials back to Virginia. The French then tore down the British effort and built Fort Duquesne. Later that year, Dinwiddie sent another expedition which clashed with the French in what were the first battles of the French and Indian War.

In 1755, George Washington accompanied British General Braddock's expedition into the Ohio Valley. French troops from Fort Duquesne ambushed Braddock's expedition nine miles from Fort Duquesne at what is now US Steel’s Edgar Thompson Works. The French & Indian victory was decisive and they would control the Ohio Valley for the next two years. In the summer of 1758, British General John Forbes began a campaign to capture Fort Duquesne. On the night of Sept. 13-14, 1758, an advance column under Major James Grant was massacred by the French on a high hill east of the Point. This hill was named Grant's Hill in the memory of Major Grant. Despite this victory, the French eventually abandoned and razed Fort Duquesne. Forbes occupied the burned fort on November 25, 1758, ordering the construction of Fort Pitt, named after British Secretary of State William Pitt the Elder. He also named the settlement between the rivers "Pittsborough."
Fort Pitt, 1795

Gateway to the West (1763 - 1799)

In 1760, the first considerable settlement around Fort Pitt began to grow. Traders and settlers built two groups of houses and cabins, the "lower town," near the fort's ramparts, and the "upper town," along the Monongahela. In April 1761, a census counted 332 people and 104 houses.

An estimated 4,000 to 5,000 families settled in western Pennsylvania between 1768 and 1770. About a third of these settlers were English, a third of them were Scotch-Irish and the rest were Welsh, German and others.

Pittsburgh in 1790. The hill east of the village is Grant's Hill, which was cut in 1836, 1847 and 1913-14.
After the Revolution, the village of Pittsburgh continued to grow. Its main industry at this time was shipbuilding. With its strategic location at the mouth of the Ohio and plentiful timber close-by, Pittsburgh was well-situated for the building of flatboats and keelboats. These were used by settlers to reach the Ohio country and for farmers to send their products down river, sometimes as far as New Orleans.

The town continued to grow in manufacturing capability. In 1811, the first river steamboat, the *New Orleans* was constructed in Pittsburgh. Soon ocean-going vessels that shipped goods as far as Europe were constructed here. In 1795, the first glass factory was built.

**The Iron & Glass City (1800-1859)**

Continued westward growth of the United States decreased the role of commerce in the Pittsburgh economy. However, Pittsburgh sat in the middle of one of the most productive coalfields in the country; the region was also rich in petroleum, natural gas, lumber and farm goods. The abundance of natural resources would be one reason for the growth of manufacturing in the Pittsburgh area.

The second major cause of manufacturing growth was the War of 1812. The war cut off the supply of British goods, stimulating American manufacturing. Also, the British blockade of the American coast increased inland trade, so that goods flowed through Pittsburgh from all four directions. By 1815, Pittsburgh was producing $764,000 in iron; $249,000 in brass and tin, and $235,000 in glass products. When Pittsburgh was incorporated as a city on March 18, 1816, it had already taken on some of its defining characteristics: commerce, manufacture, and a constant cloud of coal dust.

By the 1840s, Pittsburgh was one of the largest cities west of the mountains. An 1857 article provided a snapshot of the Iron City:

939 factories in Pittsburgh and Allegheny City

….employing more than 10,000 workers

….producing almost $12,000,000 in goods

….using 400 steam engines

….consuming 22,000,000 bushels of coal and 127,000 tons of iron

Though river commerce would soon fall off, Pittsburgh in the first half of the 19th century was the third busiest port in the nation, surpassed only by New York City and New Orleans.
Monongahela River Scene, 1857.

The Steel City (1859-1946)

Industry in Pittsburgh at this time was thriving. In 1859, the Clinton and Soho iron furnaces introduced coke-fire smelting to region. The American Civil War boosted the city's economy with increased production of iron and armaments. Lawrenceville's Allegheny Arsenal and the Fort Pitt Foundry helped the "Iron City" to earn the nickname "Arsenal of the Union." By war's end, over one-half of the steel and more than one-third of the glass in the United States was produced in Pittsburgh. A milestone in steel production was achieved in 1875 when the Edgar Thomson Works in Braddock began to make steel rails using the new Bessemer steelmaking process.

The Edgar Thomson Works was the first plant in the Carnegie Steel Company, founded by industrialist Andrew Carnegie in 1892. In 1901, Carnegie sold his mills to J.P. Morgan, creating the U.S. Steel Corporation and making him one of the world's richest men. Carnegie then devoted the rest of his life to public service, establishing libraries, trusts, foundations, and schools.

Other industrialists such as Henry Clay Frick, Andrew W. Mellon, and Charles M. Schwab built their fortunes here. George Westinghouse, credited with such advancements as the air brake and alternating current, founded over 60 companies in Pittsburgh, including Westinghouse Air Brake Company (1869), Union Switch and Signal (1883), and Westinghouse Electric Company (1886). Bankers such as the Mellon family played a key role in Pittsburgh's
development as these industrialists sought massive loans to upgrade plants, integrate industries and fund technological advances.

As a manufacturing center, Pittsburgh also became an arena for intense labor strife. During the railroad strike of 1877, Pittsburgh erupted into widespread rioting. Dozens died and over 40 buildings were burned. Fifteen years later in 1892, a strike at the Carnegie Steel Company’s Homestead Works resulted in 10 deaths when Carnegie Steel Company's manager Henry Clay Frick sent in Pinkertons as strike-breakers.

Pittsburgh in 1902

By 1911, Pittsburgh had grown into an industrial and commercial powerhouse. It was the nexus of a vast railway system, with freight yards capable of handling 60,000 cars. More than 9 million tons of river traffic passed through its 27.2 miles of harbor. Its factories produced more than $211,000,000 worth of goods.

Allegheny County produced, as percentage of national output, about:

24% of the pig-iron
34% of the Bessemer steel
44% of the open-hearth steel
53% of the crucible steel
24% of the steel rails
59% of the structural shapes
To escape the soot of the city, many of the wealthy lived in the Shadyside and East End neighborhoods, a few miles east of downtown. Fifth Avenue was dubbed "Millionaire's Row" because of the many mansions lining the street. Oakland became the city's cultural and educational center, including four universities, museums, a library, a music hall and a botanical conservatory. Oakland's University of Pittsburgh erected North America's tallest educational building, the 42-story Cathedral of Learning in 1926.

Between 1870 and 1920, the population of Pittsburgh quadrupled. Eastern European immigrants accounted for 2/3 of this increase. Seeking employment in the factories and mills, these immigrants introduced new traditions, languages and cultures to the city. Ethnic neighborhoods emerged on densely populated hillsides and valleys, such as Polish Hill, Bloomfield and Squirrel Hill.

Pittsburgh's industry continued to proper during this era, due in large part to the two World Wars. During World War II, Pittsburgh's mills contributed 95 million tons of steel to the Allied war effort. US Steel’s Homestead Works alone employed 15,000 people during World War II.

**Renaissance I (1946 - 1973)**

Rich and productive, Pittsburgh was also the "Smoky City," with smog sometimes so thick that streetlights burned during the day. Civic leaders, notably Mayor David L. Lawrence, elected in 1945, and Richard K. Mellon, chairman of Mellon Bank, began smoke control and urban revitalization projects that transformed the city. Renaissance I began in 1946. By 1950,
the first building project, Gateway Center, was under construction. 1953 saw the opening of the (since demolished) Greater Pittsburgh Municipal Airport. Areas in the lower Hill District were cleared to create space for the Civic Arena, which opened in 1961.

The city's industrial base continued to grow. Jones and Laughlin Steel Company expanded its plant on the South Side. H.J. Heinz, Pittsburgh Plate Glass, Alcoa, Westinghouse, U.S. Steel and its new division, the Pittsburgh Chemical Company and many other companies also continued robust operations through the 1960s. 1970 marked the completion of the final building projects of Renaissance I, the U.S. Steel Tower and Three Rivers Stadium. In 1973, Point State Park was completed. The city was revitalized.

The revitalization that occurred during this period masked serious problems in Pittsburgh’s economic base, the steel industry. Outwardly, the steel industry prospered, employment levels were high and union contracts were generous. However, employment levels were grossly out of line with those of an efficient operation. A bloated and bureaucratic management structure led to further operational inefficiencies. Big Steel also suffered from a lack of technological innovation. In 1951, US Steel constructed a new greenfield steelworks, the Fairless Works. Fairless Works produced open-hearth steel, even though the more-efficient basic oxygen had been developed and was ready for use in large-scale production. New steelworks in Asia and Europe that incorporated these technologies began producing steel that was of a higher quality and less expensive than steel produced in America. Although it was not realized at the time, these issues would soon irrevocably alter Pittsburgh

...,And the Wolf Finally Came (1973 – Present)

During the 1970s and 1980s, the U.S. steel industry came under increasing pressure from foreign competition. Foreign mills and factories, benefiting from lower labor costs and powerful government-corporate partnerships captured increasing market shares of steel and steel products. In addition, demand for steel softened, due to recessions, the 1973 oil crisis, and increasing use of other materials in applications previously dominated by steel. Especially under President Reagan, free market policies dealt a blow to an industry accustomed to a certain level of government cooperation. Internal problems exacerbated these pressures. The United States had a bloated manufacturing base that had been over-expanded in the 1950s and 1960s with now-outdated technology and hostile management/labor relationships. The United Steelworkers
inflexibility towards wage cuts, work-rule reforms, and oligarchic management styles also added to pressure on the industry. Pittsburgh in particular faced its own challenges. Nearby coal and ore deposits were depleted, raising material costs. Big Steel in Pittsburgh region also faced competition from newer, more profitable "mini-mills" and non-union mills with lower labor costs.

Beginning in the late 1970s and early 1980s, the steel industry in Pittsburgh began to implode. Following the 1981-1982 recession, the mills laid off 153,000 workers. By 1990, seven of the nine major steel plants in the area had shut down. These closures caused a ripple effect as railroads, mines, and other factories across the region lost business and closed. The local economy suffered through a depression, marked by high unemployment and underemployment, as laid-off workers took lower-paying, nonunion jobs. Like other Rust Belt cities, Pittsburgh began to lose population. The city proper also lost people to the suburbs.

Today there are no steel mills in Pittsburgh, although manufacturing continues at regional mills, such as the Edgar Thomson Works in nearby Braddock. Beginning in the 1980s, Pittsburgh's economy shifted from heavy industry towards services, medicine, higher education, tourism, banking, corporate headquarters and high technology. In 1985, the J & L Steel Southside Works site was cleared and a High Technology Center was built. In the 1980's, the Renaissance II urban revitalization created numerous new structures, such as PPG Place. In the 1990s, the former sites of steel mills at Homestead, Duquesne, and South Side were cleared for new commercial and residential development. In 1992, the new terminal at Pittsburgh International Airport opened. In 2001, Heinz Field and PNC Park opened.

In the new century, the universities in Pittsburgh have begun to play a larger role in regional employment. The presence of the University of Pittsburgh Medical Center has lead to numerous biotechnology startup companies, while the Carnegie Mellon University has done the same for Computer Science startups. As it was at the turn of the 19th century, Pittsburgh at the turn of the 21st century appears positioned at another potential turning point in its industrial development. With the cooperation of government, industries, and universities, it may again emerge a stronger region than ever.