

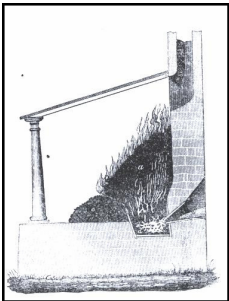
Carlyle House

Docent Dispatch

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Northern Virginia Regional Park Authority

John Carlyle's Bloomery



If you've ever mentioned that John Carlyle owned portion of a bloomery on your tour, you may have received some puzzled looks. In the eighteenth century, a bloomery was a small furnace for making iron blooms. A bloom,

derived from the old Germanic word for flower, was a pasty lump of raw, unhammered iron. While bloomeries were more common in the colonies, they were not able to produce the most pure iron. Blast furnaces were larger and able to produce a more desirable molten iron. In fact, there were a number of blast furnaces in Virginia opened by Governor Spotswood, in an attempt to diversify the primarily agricultural economy in the early eighteenth century.

The process for making iron in a bloomery, however, had multiple stages involving chemical and physical changes to remove the impurities and leave iron behind. The iron ores generally used were found on the surface of the ground or just under the topsoil. Most iron ores are chemical combinations of iron and oxygen with some trace elements present. The oxygen is removed by placing the iron in contact with charcoal and heating it up. The carbon-rich atmosphere combines with the oxygen and burns off as carbon dioxide. The physical impurities such as sand and clay separate and melt at 2300 degrees Fahrenheit. The iron forms into a soft, spongy mass, which must be hammered repeatedly to force out the remaining impurities and consolidate the metallic iron into a usable bar. The iron

produced in most bloomeries was called pig iron, a type of wrought iron that had many impurities, but was still used by blacksmiths to make various iron commodities.

By 1750, ironworks, both blast furnaces and bloomeries, were operating in eleven of the colonies and their estimated output that year was 10,000 tons of iron which was about seven percent of the total world production. The speed at which the colonial iron industry was growing, however, proved to be one of the chief reasons why the English Parliament in 1750 passed an act forbidding further expansion of American ironworks. In order to stimulate the declining iron wares industry of England, the Act encouraged export of pig iron and bar iron from America to England. As with many Acts passed at this time, it was hoped that this would increase the supply of raw materials needed by English producers of tools and other products, while at the same time discourage the manufacture of these goods in the colonies.

Amidst all of this, John Carlyle became part owner of a bloomery in the Shenandoah Valley. John's initial investments in iron began in 1757 when William Ramsey started a mining venture on Abraham Barnes Sugarland Run tract. Both John Carlyle and George Washington each bought two shares. Then in 1760,

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<p style="text-align: center;">Carlyle House</p> <p>Mary Ruth Coleman, Director Heidi Miller, Curator Caroline Neely, Curator of Education</p>



Bloomery (con't)



Carlyle and business associate, John Dalton, bought half-interest in George William Fairfax and Richard Stephenson's Bloomery. In addition to the bloomery itself, this new investment also came with hundreds of acres of hardwood trees that were necessary for fuel to operate the bloomery. Eventually this venture was comprised of a bloomery, a store, and later a mill was on the property. Records indicate that Carlyle was active in both the bloomery and mill business, exporting raw materials to England. For example, in 1757 his ship the *Alexandria*, sailed for London carrying tobacco, barrel staves, walnut timbers and pig iron.

The business appears to have been successful. Carlyle and Dalton purchased additional land surrounding the bloomery and continued to manage the property and invest money in the bloomery business. Carlyle even found a place at the bloomery for William Little, his cousin, who eventually directed the store and 100 men. Unfortunately, according to Jim Munson, "subsequent changes in the bloomery ownership caused a tangle in shares of the profits." What happens to the bloomery business seems typical for the complicated business partnerships of the eighteenth century. In 1773, George William Fairfax agreed to

Carlyle & Dalton's urging that they sell half their joint assets to Preeson Bowdoin of Norfolk and continue the business with him as a partner. Bowdoin sold his interest to a Robert Rutherford who later, with Carlyle & Dalton, sold the bloomery assts to William Bready. The bloomery storekeeper and supervisor, William Little, married Rutherford's daughter. Rutherford seems to have given a part interest in the bloomery to his new son-in-law. Sorting out who got what from the net sales of the store, sale of the bloomery's iron, sale of the business shares and sale of the physical assets became the center of the disagreement between George William Fairfax and Carlyle & Dalton.

The first documented evidence of this disagreement is an irate letter dated February of 1767 to Carlyle & Dalton in which George William Fairfax talks of many items on the bloomery account ledger that he did not approve. Fairfax writes again in 1773, prior to his departure for England urging Carlyle and Dalton to revise the accounts and reduce the amount that he owes them. Fairfax permanently moves to England at this point and entrusts George Washington with the responsibility of clearing up the situation. In 1774, Dalton writes to Washington explaining that despite numerous attempts prior to Fairfax's departure they were unable to settle the accounts. The bloomery

disagreement continues and in 1780 in George William Fairfax's will, he stipulates that his bloomery shares be sold to pay for his debts and funeral expenses. The will is later changed in 1787 to "recind clause dealing dealling w/Bloomery and instead wishes it sold w/money to go to Ferdinando" (his nephew).

The bloomery matter is actually not settled until 1816 by Carlyle, Dalton and Fairfax descendents in court. In the case of Wilson Miles Carey, the acting executer and descendent of George William Fairfax against a whole list of Carlyle and Dalton descendents, the Fredericksburg Circuit Court rules that Carey must pay Carlyle & Dalton descendents the amount owed the bloomery account by George William Fairfax plus interest on the original sum of five percent annually. Once the debt has been cleared, ¼ the bloomery land will be given to the Fairfax estate. In addition, the Fairfax's had to pay all the legal fees of the Carlyle & Dalton descendents. Finally, over forty years later, the bloomery debate had been settled.

After looking closely at one of John Carlyle's complicated business ventures, it is hard to imagine how he managed to be involved in so many different business dealings and public works.