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# Anne Arundel County History Notes

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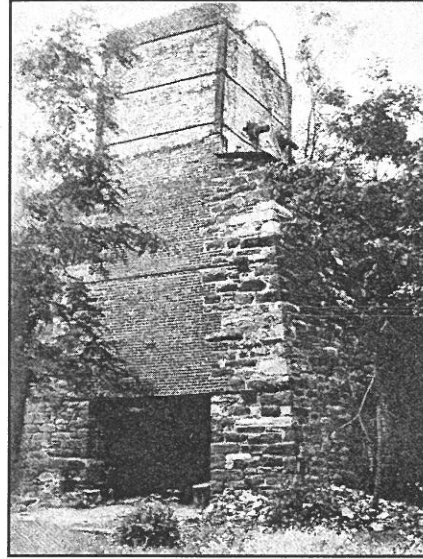
Query No. 1

*If you could live at any period  
of time, except the present,  
when would it be?*

MARK N. SCHATZ, Editor  
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## Anne Arundel County's Curtis Creek Furnace: The Cultural Landscape of Early Iron Production

By John E. Kille



Abandoned Curtis Creek Iron Furnace, circa 1911.

The *Lost Towns Project* recently embarked on a project designed to assess, preserve, and interpret the Curtis Creek Iron Furnace (c. 1759) through the use of archival research, advanced mapping, and limited field work. This imposing 30-foot tall stone and brick furnace once stood on the southern shore of present-day Furnace Creek in Glen Burnie, where it produced high quality pig iron using local iron ore and charcoal. Long recognized as one of the earliest industries in Anne Arundel County, this local iron works is also gaining recognition for its involvement in the production of armaments during the War of 1812.

This undertaking is being directed by Julie Schablitsky, who heads the Cultural Resources Section at the Maryland State Highway Administration, the agency that now owns the property upon which the furnace once stood. The initiative complements a laudable effort to preserve portions of the site prior to the construction of Route 10 nearly a half century ago. Mark Schatz and the Ann Arrundell Historical Society spearheaded this earlier campaign, which culminated in a roadside marker placed over nearby Saw Mill Creek along Ritchie Highway in 1965 to commemorate the furnace and its important place in history.<sup>1</sup>

The Curtis Creek Iron Furnace was among a growing number of enterprises established following passage of an act by the Maryland General Assembly in 1719, which provided various economic incentives to encourage iron manu-

facture. In 1758, one year before Curtis Creek was erected, Maryland could claim eight furnaces and 10 forges making "about 2,500 tons of pig iron and 600 tons of bar iron annually."<sup>2</sup>

The site chosen for the Curtis Creek furnace was advantageous for several reasons. The location ensured access to local iron ore deposits, wood from surrounding forests necessary for charcoal kilns, a constant source of water power from a one-mile mill race fed by nearby Saw Mill Creek, and water transportation for exporting iron production. This type of blast furnace produced pig iron by smelting iron ore combined with charcoal, an oyster flux, and super heated air. A water wheel positioned next to the furnace powered a mechanized bellows which pumped blasts of air through pipes to achieve an intense heat during the smelting process. A ramp leading up to the rear of the furnace would have been used to feed iron ore and charcoal into an opening located toward the top of the structure. Several other water wheels were also in use at the site, and at least one probably powered machinery for a later foundry.

Over the course of almost a century the Curtis Creek works had several owners and operated in conjunction with different furnaces and foundries in the region.<sup>3</sup> In 1758 Caleb and Edward Dorsey, and Alexander Lawson,

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## ANNE ARUNDEL COUNTY'S CURTIS CREEK (CONT. FROM PAGE 1)

applied for a writ for 100 acres at the head of Curtis Creek.<sup>4</sup> The Dorseys also operated the Elkridge Furnace and a forge at Avalon, both situated along the Patapsco River farther north. From the beginning, African slave labor was associated with the Curtis Creek furnace. In 1760, Caleb Dorsey placed a runaway ad in the *Maryland Gazette* for "Jem, a country-born Negro, 27 years old, who ran away from Curtis Creek Works."<sup>5</sup> Later the same year, Dorsey appealed for the return of two other workers at the furnace, John Collins and Thomas Cooper.<sup>6</sup> After the death of Caleb Dorsey in 1772, ownership passed to Samuel and Edward Dorsey and Priscilla Dorsey, who married Charles Ridgely. The Ridgely family also owned the Northampton Furnace in Towson.

A remarkable first hand account recorded in 1890 describes the involvement of the Curtis Creek Furnace in the War of 1812.<sup>7a</sup>

*Reminiscences of a Venerable Woman*

Miss Sarah A. Randle received yesterday, at the Home for the Aged of the M.E. Church, congratulations on her birthday anniversary. She entered her 96th year in good health and spirits. It is unusual to find her other than sprightly and cheerful. She told about the little village at Monocacy, near Fredericktown, where she spent her first eight years; of her grandfather's farm, Mr. Rittenhouse's school and Mr. Swanstead's church. When in her ninth year her parents moved to a farm in Anne Arundel county and joined the old Patapsco Church. At the beginning of the war of 1812 Captain Abner Linthicum's company of the county militia, of which her father was a member, was called out, and was often in service, for longer or shorter periods, as required, while it lasted, sometimes at Fort Madison, opposite Annapolis, sometimes at Etna Furnace, Curtis Creek, where cannon were cast before and during the war. The uniform of this company was gray, with dark blue facings...

Ms. Randle's recollection of cannons cast at Curtis Creek and troops stationed at the site is all the more intriguing given that the furnace appeared on maps that would have been available to the British Admiralty.<sup>7b</sup>

According to an 1817 advertisement in the *American* the "Well Known establishment of Aetna Furnaces, 8 miles from Baltimore is now built, and will cast any large castings from patterns furnished. The subscriber will contract to make guns, shot, shells, kentledge."<sup>8</sup> The same year, a notice in the *Federal Gazette* described "the runaway Negroes Jack Boyer and Will Nevil...who ran away from Mr. Charles B. Ridgely, Jr.'s farm, 8 miles from Baltimore...were both bought of Mr. John E. Dorsey, in Feb. last at the Aetna Furnace, formerly the Curtis Creek Furnace..."<sup>9</sup>

Several years earlier on January 7, 1813, John E. Dorsey entered into a contract with the United States Ordnance Department to provide both ammunition and gun carriages during the War of 1812. The order called for "300 Tons of heavy Shot 18 & 24 Pdrs deliverable at Baltimore @ 72 \$, 10 Tons Grape Shot @ 120." Also, "60 Gun Carriages (travelling) with Timbers complete 40 for 6 pdrs: at 215 \$ a piece, 20 for 24 pdrs at 245 \$ a piece."<sup>10</sup>

Much later, in 1840, J.H. Alexander issued a Report on the Manufacturing of Iron to the Governor of Maryland that described the Curtis Creek furnace driven by "the water of the creek, which also turns three other wheels for different purposes connected to the establishment."<sup>11</sup> According to Alexander, J. (John) Barker erected a foundry in Baltimore in 1810 and at Curtis Creek in 1829.<sup>12</sup> Several years earlier, in 1825, John Barker of William Barker and Son contracted with the Ordnance Department to produce 24 pound cannon balls at a foundry in Baltimore.<sup>13</sup> However, in 1827, the military alleged that armaments made at the foundry were defective due to poor quality iron.

Alexander also noted that Barker's foundries in Baltimore and Curtis Creek "convert into castings about two-thirds of the quantity made at the furnace. This quantity, in an average blast of nine months, is estimated at 1100 tons. The entire establishment employs through the year 150 men and 30 horses and mules."<sup>14</sup>

In 1847, Peter Mowell, proprietor of the Munson Iron Works, alleged that there were 18 blast furnaces in operation in the area surrounding Baltimore.<sup>15</sup> They included "2 at Havre de Grace; 1 on Bush River; 1 at North-East; 2 on the Patuxent and another nearly completed; 1 at Elkridge; 2 at Howard's (Stemmer's run); 1 on Curtis Creek; 6 in the immediate vicinity of Baltimore, and an anthracite furnace on the Baltimore and Susquehanna railroad." Mowell stated that "At a moderate estimate, each of these furnaces produces over 2,000 tons of iron per annum; making an aggregate of about 40,000 tons per year. The iron thus made is all, with the exception of that turned out at the anthracite furnace, of the best quality of charcoal-made forge iron, and will readily command \$30 per ton; giving, as the value of the whole amount made, \$1,200,000."

The 1850 U.S. Census Products of Industry listed an iron furnace owned by E. Barker which was worth \$15,000, had 8 employees, and produced 800 tons of pig iron with a value of \$17,600.<sup>16</sup> This enumeration also recorded a blacksmith working at the furnace site. On June 10, 1849, the *Baltimore Sun* reported the dedication of the Furnace Branch Chapel of the Methodist Episcopal Church "situated near Mr. Barker's furnace."<sup>17</sup>

However, by 1855, and perhaps earlier, the furnace had apparently shut down. By this time and later, Maryland charcoal iron furnaces in general were facing

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*ANNE ARUNDEL COUNTY CURTIS CREEK (CONT. FROM PAGE 2)*

radical changes within their industry. Several factors contributing to a decline involved new and cheaper sources of iron ore, the manufacture of iron in coke furnaces, less expensive and more expansive transportation, and the introduction of steel.<sup>18</sup> A newspaper notice advertised the sale of the Curtis Creek Furnace by W.W. Glenn, the Trustee of John Barker. This sale involved 6,400 acres of land situated on Curtis Creek and Marley Creek, including the following tract for the Curtis Creek Furnace.<sup>19</sup>

LOT No. 1, with which three hundred acres are reserved, lies directly on Furnace Creek, with a depth of water at the wharf sufficient for vessels drawing 8 or 9 feet. An improved WATER POWER, with a fall of 22 feet, and a regular supply, capable of driving a mill to turn out 150 to 200 bbls. flour per day, offers peculiar advantages to Millers.

The FURNACE, seven miles by road, from Baltimore, and eight miles by water, is 32 feet, and 9 feet boshes, has been hitherto used with charcoal, but could easily be arranged for anthracite, which canal boats could deliver at the yard.

While references to Curtis Creek iron production disappear from the documentary record in the second half of the 19th century, later newspaper reports describe several events and activities that took place either at the furnace or in the immediate surrounding area. In 1861, "a fire destroyed a dwelling house at Barker's old furnace, near Curtis's creek, Anne Arundel county, occupied by Mr. Thielman. It was burned to the ground on Tuesday night. All the furniture was consumed, and the family were awakened just in time to escape with their lives, Mr. Thielman, who was ill, leaving \$100 in notes under his pillow. It is thought the house was set on fire. We have not learned the extent of the loss, or the amount of insurance thereon, if any."<sup>20</sup>

A fox hunt held at Mr. Barker's farm at Furnace Branch in 1878 was described as a grand affair.<sup>21</sup>

*Fox Hunting in Anne Arundel County*

Saturday last one of the most brilliant fox hunts of the season took place on Mr. Barker's farm at Furnace Branch, about four and a half miles from Light-street bridge. The hunt was inaugurated by members of the Baltimore County Riding Club, composed of members of the most prominent county families, including representatives of the Johnsons, Cockeys, Worthingtons and many others. The party, numbering twenty in all, four of whom were ladies, passed through Baltimore about 7 o'clock in the morning and across Light Street bridge to the place of rendezvous. They were all elegantly dressed, the

ladies wearing the traditional high silk hats, and the horses were unsurpassed for beauty. The hounds, about fifty in number, had been sent by train to Jessup's Cut, on the Baltimore and Ohio railroad, and thence across the country.

Two decades later, in 1893, the local African Methodist Episcopal Church, Rev. Briggs, pastor, gathered for a large outdoor service on Furnace Branch, joined by another African congregation from Baltimore.<sup>22</sup> It was reported that "The tug Louie, Captain League, towed one of the Baltimore Storage and Lighthouse Company's barges up Curtis Creek to a convenient landing on Furnace branch. On board were two hundred members of Asbury African Methodist Episcopal Church, East street, Baltimore. The members were accompanied by Rev. George L. Blake, the pastor, who preached at the meeting. The barge was fitted up with tables, at which the Baltimore party took their meals. The Louie brought them back in the evening."

In 1901 it was reported that the Corinthian Yacht Club gave the first oyster roast of the winter at the furnaces at Furnace Creek.<sup>23</sup> Another oyster roast was held by the club at their Furnace Branch anchorage in November 1903. However, by this point the Yacht Club was considering merging with the Maryland Swim Club headquartered in Dundalk due to the latter's "magnificent clubhouse and accessibility by electric cars."<sup>24</sup>

It is against this broad historical backdrop that *Lost Towns Project* archaeologists Shawn Sharpe, John Kille, Anastasia Poulos, and Stephanie Sperling, and volunteers Skip Booth, Jim Morrison, and Barry Gay assessed the integrity of this multi-faceted industrial site. This team was directed by Dr. Al Luckenbach, Anne Arundel



Total station transit used by Maryland State Highway Administration Survey Team and Lost Towns Project archaeologists at Curtis Creek Site.

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## ANNE ARUNDEL COUNTY CURTIS CREEK (CONT. FROM PAGE 5)

County Archaeologist, C. Jane Cox, Anne Arundel County Cultural Resources Planner, and the author. This work has been extremely challenging due to a formidable overgrowth of trees and brush, many decades of trash dumping and looting, dredged soil spread over much of the site during the construction of nearby Route 10, and mounds of slag debris. Despite these obstacles, much progress has been made to document the physical layout of the furnace, possible foundry, and a number of later buildings and wharves in close proximity to the water.

Precise mapping tools, such as Lidar and Total Station, helped to identify areas where the natural landscape had been altered. Lidar mapping is an optical remote sensing technology that measures distances and properties of targets by illuminating the target with laser light and analyzing the backscattered light. The Total Station transit uses laser light to create accurate maps that delineate topography and the relative location of landmarks and site features. Maps created with these advanced tools proved very useful in exploring and recording landmarks and physical features.

The first landmark identified by the *Lost Towns Project* was the spot where the Curtis Creek Iron Furnace once stood. The furnace complex was found to be situated upon a high, flat area overlooking Furnace Creek, free of dredged fill and trash, and perhaps the most well-preserved area of the site. Large stones and brick used in the construction of the furnace were documented on the surface of this high area and the slope leading down to Furnace Creek below. Heavy concentrations of slag were also spread over much of this general area as well. Beginning in 1966 Rev. John Grant, an amateur archaeologist, conducted extensive excavations and mapped the site with the help of members of the Ann Arrundell County Historical Society, community volunteers, and Boy Scout

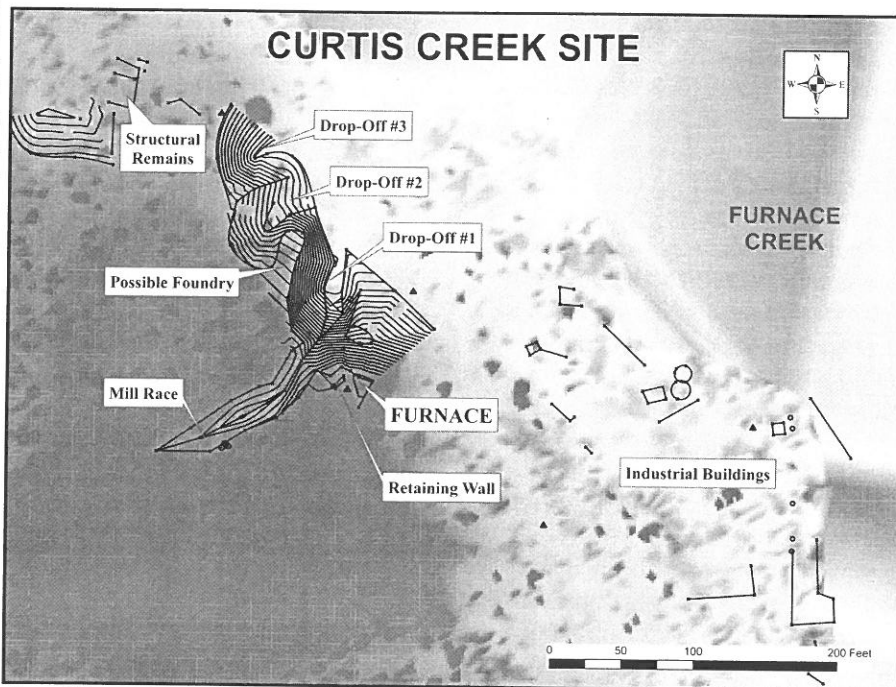
troops.<sup>25</sup> While the field notes he recorded indicate that the front wall of the furnace foundation was unearthed, a retaining wall made of articulated stone is the only intact remnant of the furnace operation that is still visible. It should be noted that in 1988, Glen Burnie High School teachers and students carried out additional excavations at the site, resulting in further disturbance.<sup>26</sup>

The furnace and several associated operations were positioned alongside high drop offs, to which water was channeled from a one-mile long mill race supplied by nearby Saw Mill Creek. The furnace and foundry complex reportedly had four water wheels, one of which is documented powering the machinery for the bellows that superheated the furnace blast. The *Lost Towns Project* found three drop offs at the site, and another steep sloped area to the west that could represent a fourth. The entire mill race was reportedly still visible on the land-

scape prior to the construction of Route 10 and much of it was documented by Rev. Grant in the late 1960s. However, the *Lost Towns Project* found that dredged fill was spread over the race at the southern and western areas of the site.<sup>27</sup> Only a small area of the mill race was still visible leading up to the furnace. The mill race today appears as a sunken channel several feet deep and approximately 10 feet wide.

Unfortunately, it was not possible to determine the type of operations that stood alongside the drop offs west of the fur-

nace, as they were covered with dredge fill. Extensive excavations would be necessary to learn more about the design and function of structures that once operated in these areas. It should be noted that Rev. Grant excavated a portion of a stone wall alongside a drop off west of the furnace, which may have been associated with an early foundry operation. Perhaps the biggest surprise of this field survey was the recent discovery of extensive foundations for a later industrial complex and wharf landing situated east of the furnace site, along the shoreline. The exist-



Map of Curtis Creek site created with Lidar and Total Station mapping technology. Lidar map shows gradations delineating elevations and human disturbances upon the natural landscape, with an overlay of landmarks discovered by *Lost Towns Project* archaeologists that were precisely recorded with a laser transit by MSHA surveyors.

## ANNE ARUNDEL COUNTY CURTIS CREEK (CONT. FROM PAGE 6)

tence of early stone foundations, as well as cinder block and concrete construction, suggests a long period of occupation. However, much more focused research and analysis will be necessary before the story of this built environment can be told.

In conclusion, this project has provided an outstanding opportunity to examine both the rich history and the intriguing cultural landscape of the Curtis Creek Iron Furnace. Representing one of the earliest industries in Anne Arundel County, this venerable works also deserves recognition for its involvement in War of 1812. It is hoped that the research presented here will foster a greater appreciation of the site's significance, as well as facilitate efforts to provide some form of public interpretation at the site. ■

**Footnotes:**

- 1 The Society worked in concert with Anne Arundel County Government, the Soil Conservation District, and the Maryland State Roads Commission. Schatz conducted research on the furnace and its association with the Glenn family.
- 2 Joseph T. Singewald Jr. "Report on the Iron Ores of Maryland", Johns Hopkins Press, Baltimore, 1911, p. 129.
- 3 With changes in ownership, this works has been referred to as Curtis Creek, Marley, Dorseys, Ridgelys, Aetna, Etna, and Barkers Furnace.
- 4 Singewald Jr., p. 169.
- 5 *Maryland Gazette*, February 14, 1760.
- 6 *Ibid.*, August 7, 1760.
- 7a *Baltimore Sun*, September 16, 1890.
- 7b The Curtis Creek Furnace is listed as "Dorsey's" on Dennis Griffith, Map of the State of Maryland, 1794 and D. F. Sotzmann, Maryland und Delaware, 1797.
- 8 *American*, August 26, 1817.
- 9 *Federal Gazette*, July 19, 1817. Kentledge refers to pig iron or scrap metal used as ballast in vessels.
- 10 National Archives, Record Group No. 156, Contracts, Vol. 1, Entry 78, pp. 5 and 6. 1812-1829, 7W2, 223-241. This entry was found by Mark Schatz.
- 11 J.H. Alexander, "Report on the Manufacture of Iron", Printed by order of the Senate, Annapolis, 1840, p. 87.
- 12 *Ibid.*, p. 88. However, it should be noted that the 1817 American ad describing casting taking place at the Aetna Furnace implies that Barker's 1829 foundry was not the first established at the site.
- 13 A copy of this contract and related correspondence are found in the Curtis Creek Furnace files at the Kueth Library, Glen Burnie, Maryland.
- 14 Alexander, p. 88.
- 15 *Baltimore Sun*, September 22, 1847. The Munson Iron Works was located in Baltimore County.
- 16 U.S. Census, 1850, Schedule 5-Products of Industry, Third District, Anne Arundel County.
- 17 *Baltimore Sun*, June 10, 1849.
- 18 Singewald Jr., p. 136.
- 19 *Baltimore Sun*, October 1, 1855.
- 20 *Baltimore Sun*, September 13, 1861.
- 21 *Ibid.*, March 18, 1878.
- 22 *Ibid.*, July 17, 1893.
- 23 *Ibid.*, November 9, 1901.
- 24 *Ibid.*, October 24, 1903.
- 25 See *The Star* newspaper, October 5, 1967.
- 26 According to the *Maryland Gazette*, May 18, 1988, p. 29, "A crane arrived at the site to remove a large concrete abutment, which had been preventing (George) Bankey and his students from digging through the rest of the furnace grounds."
- 27 "A Report To The Ann Arrundell County Historical Society: Work at the Curtis Creek Furnace and Iron Works" by John A. Grant, January 1, 1968.

## JACK KELBAUGH'S CIVIL WAR (CONT. FROM PAGE 4)

E. Riley took oath, released. John Brewer would not.

All prisoners brought to Annapolis by train. A guard seated by each with other Wisconsin soldiers in the car. They were put on the steamer along with these arrested at Annapolis earlier. Destination is Fort Lafayette.

Also arrested, Mayor [George F. W.] Brown of Baltimore, Mr. Howard, editor of the *Baltimore Exchange* and Mr. [Thomas W.] Hall, editor of *The South*, both anti-Lincoln newspapers in Baltimore.<sup>3</sup>

**1861, September 23-29**

Comes word this week that a Mr. Emack of Prince George's County was arrested by a party of Yankee soldiers from Sickles' Brigade. He was taken before General Walker. It is said that Emack drew a knife and stabbed Walker twice, mortally wounding him. The guard fired and fortunately missed Emack, who then slashed at the soldier, removing three fingers. Having safely rushed past the rest of the astonished guard, Emack is now safely in Richmond. This from a Richmond paper.

Large meeting of the Union Party, held at Indian Landing. Meeting addressed by Col. John Selman, candidate for State Senator. Said he is against secession. No cause for present "rebellion." "For peace and Union."

Colonel Walton, candidate for the Legislature, praised the Stars and Stripes and the Union cause.<sup>4</sup>

Speech of Charles Stewart Loudy cheered by the Unionists.

Presently the 21st Massachusetts regiment is guarding the Elkridge railroad. A rumor says that a Maryland regiment will take its place. Unionists say this is not good. They fear a home regiment will not be as vigilant or courteous as the foreigners. Groups of three within eyesight of each other with cavalry.

A few citizens have been picked up recently near the railroad by the military on suspicion.

Rumor that the Peace Party is in fear after the arrest of the Legislators and possibly will make no nomination in our county. Some Unionists here say that the strong arm of the government should be brought down with such force as to grind them to powder.

Unionists here made much false bravery behind the Yankee army.

**1861, September 30-October 6**

Peace Party in Prince George's Co. nominated Oden Bowie for State Senator. St. John's Trustees vote to vacate all chairs of professors. Then voted to fill one chair by a secessionist professor.

St. John's occupied by military by now.

Those trustees voting for the resolution: Judge