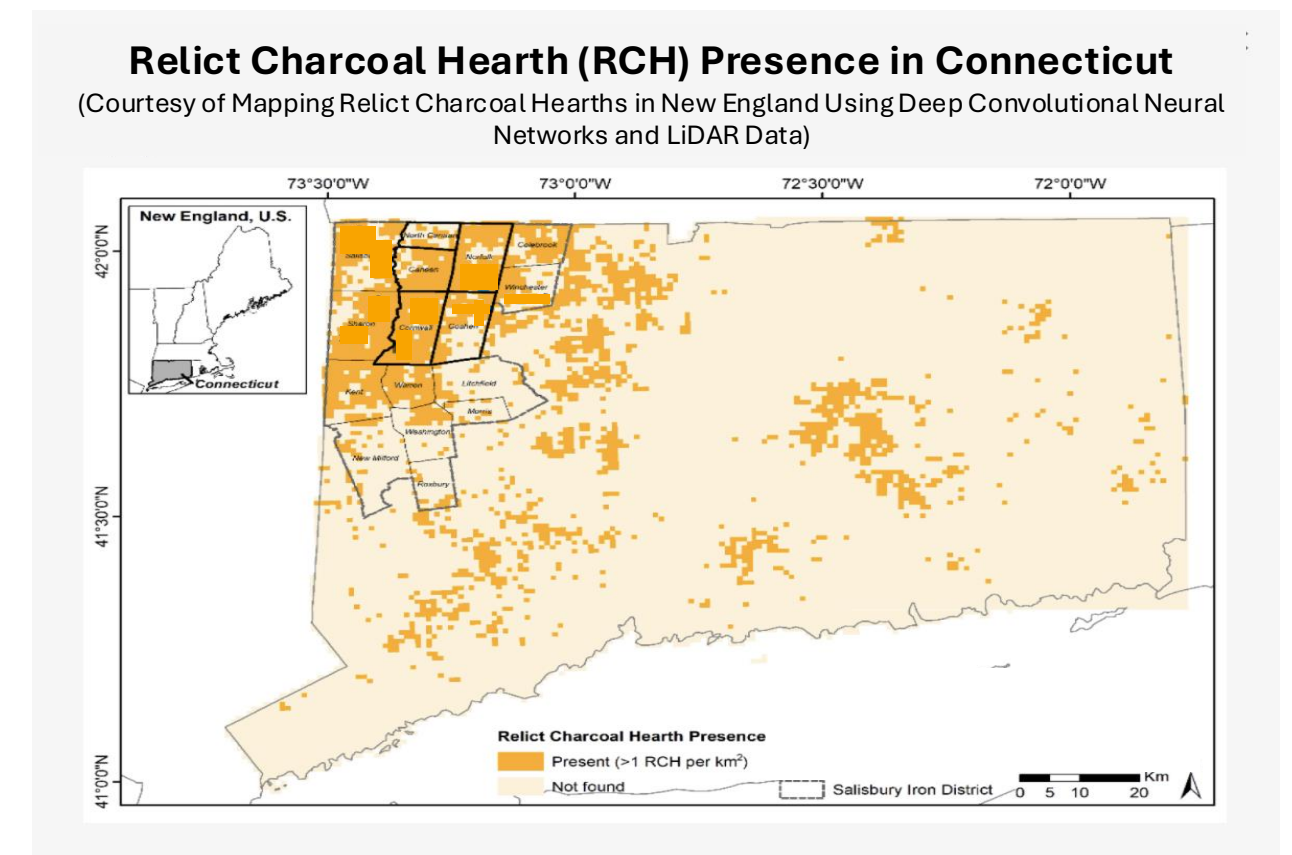


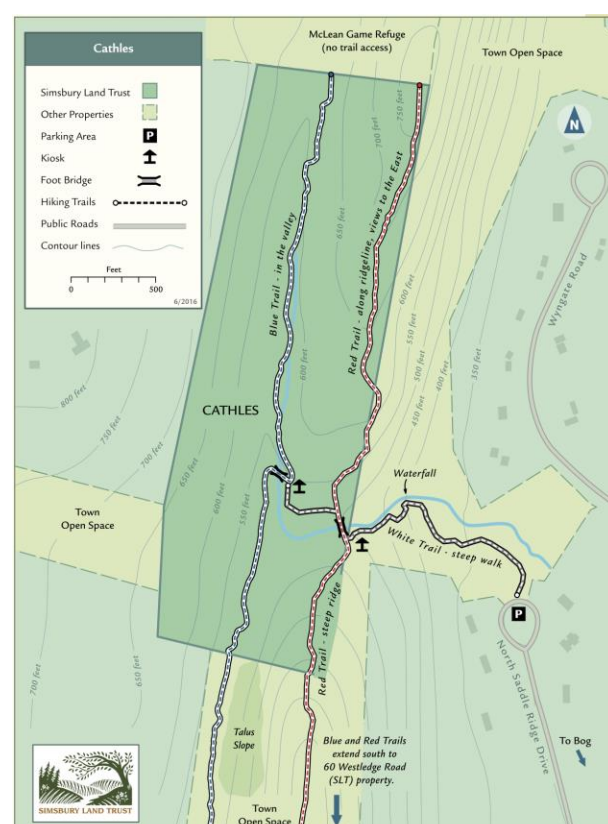
Charcoal Hearth Interpretative Trail and Site

Charcoal was in great demand in northwestern Connecticut from the mid-1700s to the mid-1930s. Historically, charcoal had been used as a fuel source for various purposes, such as heating, cooking, blacksmithing, and in a variety of industries, including:

- Iron-making Industry (Salisbury)
- Tobacco Industry (Simsbury)
- Brass Industry (Waterbury)
- Gun Powder Industry (Canton)



The origins of charcoal production in Simsbury can be traced back to the early colonial period. Settlers, recognizing the abundance of wood resources in the area, established charcoal hearths as a means of producing fuel.



Simsbury Land Trust and the Cathles Preserve

Betsy Cathles donated this property to the Simsbury Land Trust in 1995. This land was formerly used for logging, grazing, and charcoal production. Multiple charcoal sites are present on this property and the surrounding area, including the McLean Game Refuge.

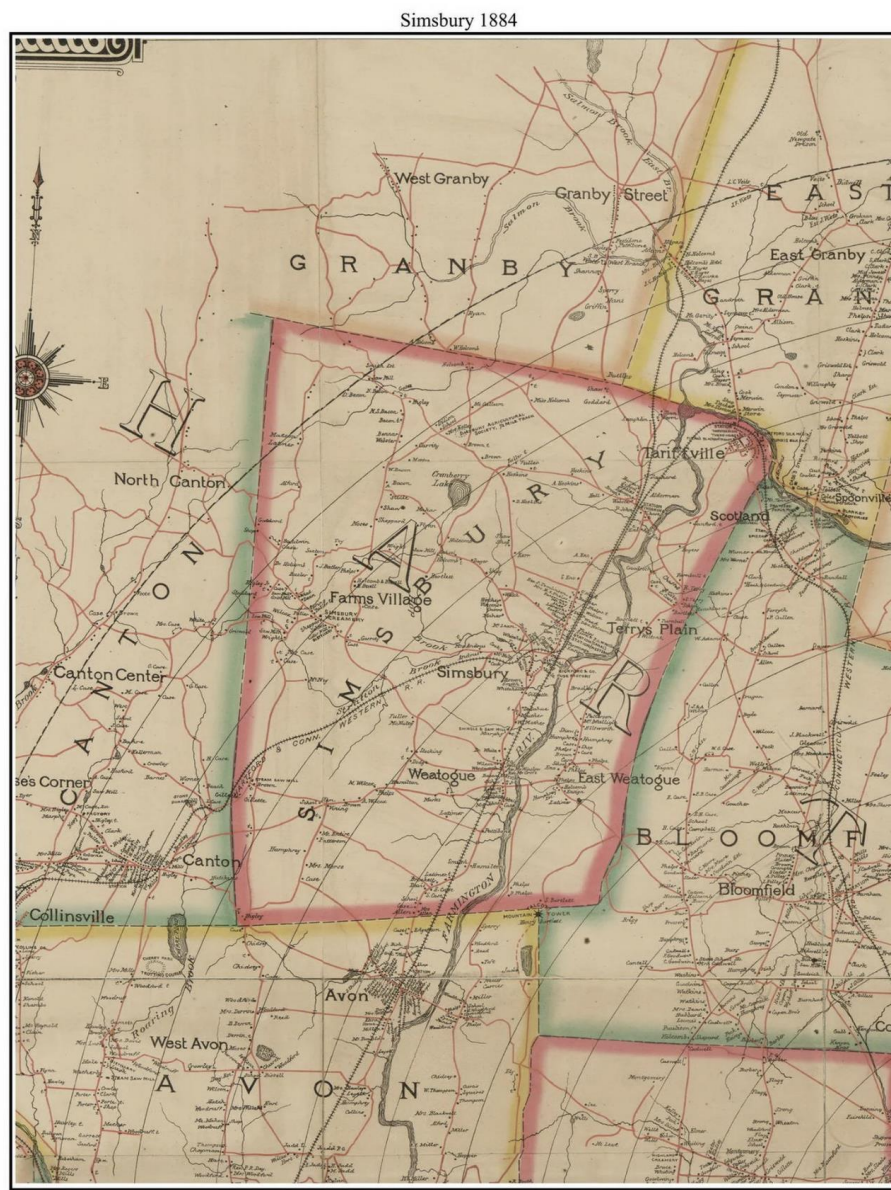
These sites and trails tell the story of charcoal production in Connecticut, its contributions to local industry, and the people who worked these woodlands.



Courtesy of Troop 175, Simsbury, CT
Daniel Breton, Eagle Scout Project



Tales and Rails



Starting in the late 1870s, the Barnum Richardson Company of Salisbury started purchasing land and timber in Granby, Simsbury, and Canton to produce charcoal. The Hartford Courant reported multiple purchases in 1879 (Granby), 1882 (Canton), 1886 (Canton/Simsbury), and 1888 (Canton). By all accounts, the large quantities of wood – from multiple lots - were burned into charcoal for the iron furnaces in East Canaan.



The Barnum Richardson Company played a significant role in the iron (and charcoal) industry of the region. The company utilized blast furnaces to produce pig iron, which was then cast into various products, including high-quality chilled cast iron railroad car wheels. The use of charcoal was crucial in this process, as it provided the necessary fuel to reach the high temperatures required for smelting.



Stratton Brook Station, once located near the corner of Stratton Brook and Town Forest roads in West Simsbury.

The Hartford Courant (December 16, 1879) reported:

"The coal is hauled to the bank on the Connecticut Western railroad, about one mile westerly from the Stratton Brook station, where it is loaded into the cars from the top, while on a side-track, and thence taken by rail to the iron furnaces of the company in East Canaan."



Courtesy of Troop 175, Simsbury, CT
Eagle Scout Project



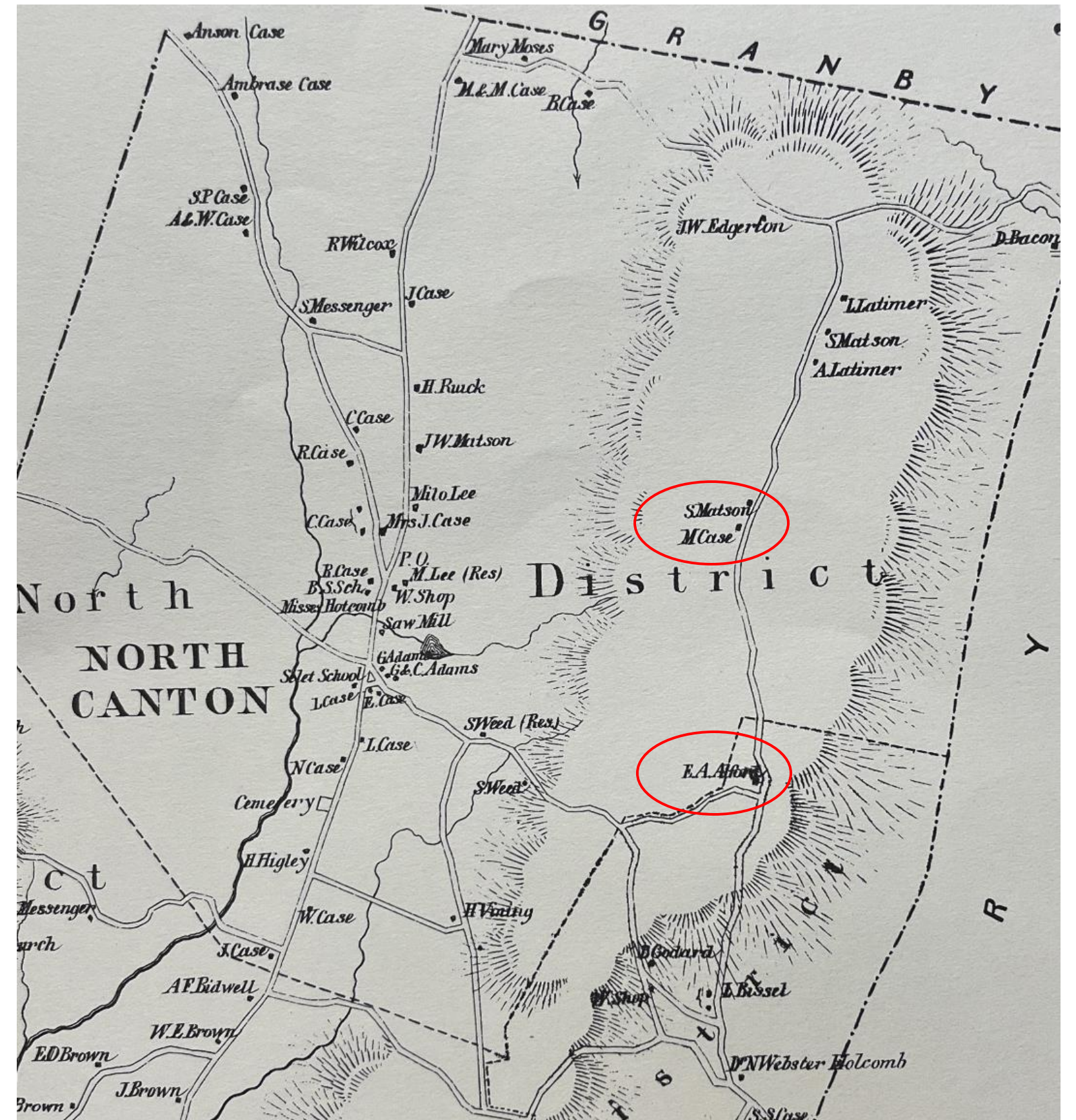
Cathles Preserve (1888)

In December 1888, owner Salmon Matson likely sold the wood on this property to the Barnum & Richardson Company to produce charcoal.

According to the Hartford Courant, dated December 11, 1888:

"The Barnum Richardson company still continues to buy wood lots to furnish its supply of charcoal. In North Canton they have bought one of Mrs. Lucinda Case, or over twenty-four acres, and one on the Emerson Alford farm, much larger. They are now cutting the wood on each of these lots."

As shown in the map of Canton (1863), the Matson farm was in vicinity of present day 273 Westledge Road (Simsbury), in proximity of the Case and Alford farms. Note – this area was North Canton until 1873, and later annexed by Simsbury.



Courtesy of Troop 175, Simsbury, CT
Eagle Scout Project



Woodmen and Transport

The wood from the property was likely cut in the winter/spring of 1889. The Farmington Valley Herald and Journal, dated March 18, 1899, described the woodmen:

"In 1880 the Barnum Richardson company purchased several wood lots along the eastern border of this town (Canton) and set gangs of French Canadians to work at chopping the wood and burning it into charcoal for their iron furnaces in East Canaan. They took their families along with them and lived in log cabins on or near the wood near where they worked."



Collier families, Cornwall, late 19th century
Collection of Cornwall Historical Society



The wood was cut and transported to the multiple charcoal hearths in the vicinity of today's Cathles Preserve. Cart trails - roughly 7-8 feet wide - were used by woodmen and horse drawn sleds. These sleds, pictured on left, hauled wood to the hearth area.

The Green Trail - associated with this interpretative site - is an example of a cart trail dating back to 1889.

The Hartford Courant, dated July 20, 1886, describes the following:

"Large loads of charcoal are being hauled daily from the pits on the center slope of the mountain, near the west line of Simsbury, to the bank on the H & C. W. Railroad, to be transported by rail to East Canaan for the iron furnaces there."

Once produced, charcoal was loaded into similar sleds, or wagons, for transport to a charcoal staging site. Charcoal likely moved south along the West Mountain Trail (Blue trail) towards Westledge and Mountain Roads to the charcoal loading site at the Connecticut Western railroad, the current Simsbury baseball field (74 Town Forest Road).

Locally-produced charcoal was transported by rail from the charcoal depot - one mile west of the Stratton Brook Depot - through Collinsville, New Hartford, and Winsted to its destination in East Canaan. Yale University researchers assessed that the Cathles Preserve was last harvested between 100-140 years ago, ending its history of charcoal production.



Courtesy of Troop 175, Simsbury, CT
Eagle Scout Project



Characteristics of a Charcoal Hearth Site

A charcoal hearth is a traditional method for producing charcoal from wood. The process involves burning wood in a controlled environment with limited oxygen to convert it into charcoal, a lightweight, black, and porous carbon substance.

The basic structure of a charcoal hearth consists of a pit or mound where the wood is stacked and burned. The key to the process is to restrict the amount of oxygen reaching the wood during combustion. This controlled burning leads to the production of charcoal.

Characteristics of charcoal hearths include:

- ***A large flat area, roughly 30 feet wide***
- ***Surrounded by a depression, to drain moisture***
- ***In a forested area, with abundant fuel***
- ***And a trail system, for transporting the finished product***

Hearths are identifiable today by clearings largely devoid of vegetation due to ash and high soil alkalinity.

A Charcoal Mystery

The remains of an unharvested charcoal mound can be seen in Peoples Forest State Park in Barkhamsted, CT. The mystery of why charcoal mound was never raked out and carted away may never be solved.



Photo by David Leff



Colliers tending their mound, Cornwall, late 19th century
Collection of Cornwall Historical Society

Decline of Charcoal

The demand for charcoal led to significant deforestation in the area as vast quantities of wood were needed to produce the charcoal required by local industry.

Over time, as industrial processes evolved and alternative fuel sources became more readily available, the use of charcoal declined, and the forests we see today returned. The legacy of charcoal hearths in Simsbury and Canton, however, remains an important aspect of the town's rich history and economic development.



Courtesy of Troop 175, Simsbury, CT
Eagle Scout Project



Charcoal Production – Step-by-Step

Making the Pile

Wood was delivered and organized at the hearth site. Three sizes of wood was used:

- Billets (4 feet long, 4-7 inches in diameter)
- Lapwood (4 feet long, 1.5 inches in diameter)
- Fagan pole (18 feet high)

The Fagan pole was set at the center of the hearth to guide the pile. The collier next made a three-sided chimney out of lapwood to the height of the pile. The pile was then constructed of billets and lapwood. The pile measured 28 feet in diameter at the base and 14 feet high. The pile was then covered with leaves or ferns and dusted with fine dirt to the depth of one foot on the head, controlling air flow entering the pile. The chimney was then filled with small wood and fired with coals from the collier's (i.e., charcoal-maker) campfire.



A – Uncovered charcoal hearth wood stack (scaled replica)
C – Charcoal process is complete

B – Covered hearth in use
D – Hearth is harvested

Courtesy of Wikipedia

Burning the Pile

Firing the pile required 10-14 days to reach post or foot, meaning all chemicals except carbon were driven from the wood and charcoal was formed. The charcoal process required skill. The charcoal-maker needed to direct the burn downward and inward to

the pile, as opposed to upward and outward. The collier also had to control the gases produced in burning wood (methyl alcohol and carbon monoxide), which enabled the fire to burn. The collier controlled the fire with vents on the outside of the pile.



Courtesy of Troop 175, Simsbury, CT
Eagle Scout Project



Colliers

The production of charcoal was hard, labor-intensive, dirty work. Charcoal-makers, often referred to as colliers, would stack wood within the hearth. Colliers lived in huts near the hearths. Colliers, laborers, and transport workers all played a role in this industrial ecosystem.

The charcoal making process was a year-round task. Farmers and local woodsmen would cut trees in the winter, creating supply for the spring. Colliers would typically burn wood in the same area, based on the location and supply.

Colliers made charcoal on three hearths at a time.

- One hearth was burning a wood "pile" to make charcoal
- A second pile was built while the first was burning
- A third pile was built while the first was cooling, and the second pile was burning

**It took two days to build the pile
and two weeks to burn.**

Each hearth would burn 30 cords of wood for a total of 90 cords per cycle. As a collier would burn charcoal five times per season, he would burn approximately 450 cords of wood. Each acre of the surrounding forest produces roughly 30 cords of wood, requiring 15 acres to provide a total of 450 cords per season for one collier. These efforts result in a yield of roughly 15,750-18,000 bushels of charcoal per season.



Courtesy of Troop 175, Simsbury, CT
Eagle Scout Project



Colliers harvesting timber, Cornwall, late 19th century
Collection of Cornwall Historical Society



Beckley furnace in Mine Hill
Preserve, Roxbury, CT



Wikipedia

The charcoal made by these colliers was used in the Beckley Iron Furnaces that can be seen along the **Upper Housatonic's Iron Heritage Trail**. The Beckley Furnace in Beckley Furnace State Park in East Canaan is officially Connecticut's Industrial Monument.



SIMSBURY LAND TRUST