

Blue Ridge Railroad, Greenwood Tunnel  
(Chesapeake & Ohio R.R., Greenwood Tunnel)  
Greenwood Vicinity  
Ablemarle County  
Virginia

HAER No. VA-3

HAER  
VA  
2-GREN.  
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WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record  
† National Park Service  
Department of the Interior  
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HISTORIC AMERICAN ENGINEERING RECORD

HAER VA-3

BLUE RIDGE RAILROAD, GREENWOOD TUNNEL  
(CHESAPEAKE & OHIO R.R., GREENWOOD TUNNEL)

HAER  
VA  
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1-

Date: 1850-1853

Location: Greenwood Vicinity, Ablemarle County, Virginia.

Owned by: Originally; Blue Ridge Railroad  
Presently; Chesapeake and Ohio Railroad

Designed by: Claudius Crozet, Chief Engineer, State of Virginia

Significance: The Greenwood Tunnel was the easternmost of the four tunnels designed by Claudius Crozet for the Blue Ridge Railroad. The brick, elliptical arched tunnel is a representative example of 19th century tunnel technology, as well as a surviving example of the work of Claudius Crozet.

Transmitted by: Dan Clement, 1983. For more information on the Blue Ridge Tunnels and the life of Claudius Crozet, please consult HAER No. VA-~~3~~2

On March 5, 1849, the Blue Ridge Railroad Company was incorporated by the Virginia General Assembly "for the purpose of constructing a railroad from some point at or near Blair Park, in the county of Ablemarle (being the eastern base of the Blue Ridge) to some point at or near Waynesboro, in the county of Augusta (being the western base of the Blue Ridge)..."<sup>1</sup>. This tunnel was actually four tunnels, the longest being 4,264 feet, and all designed and engineered by Claudius Crozet.<sup>2</sup> The history of this enterprise has been recorded in a number of publications, the most notable being two books by James Poynty Nelson; The History of the Chesapeake and Ohio Railroad Company Its Antecedents and Subsidiaries and Four Tunnels in the Blue Ridge Region of Virginia on the Chesapeake and Ohio Railway. In these books Mr. Nelson provides an historical context in which the importance of the tunnels might be evaluated.

The growth of Virginia's transportation and communication systems played a vital role in our nation's economic and industrial development. The mountainous terrain of western Virginia formed a major barrier to early efforts aimed at establishing a communication link between the Ohio River Valley and tidewater Virginia. In enterprises such as the James River and Kanawha Canal Company, much time and money was spent attempting to fully complete a trans-Alleghany water passage, but because of rough terrain and financial difficulties the connection was never made. With the advent of the railroads, the implementation of direct crossings through the mountains became essential. The four tunnels engineered by Claudius Crozet played an important role in this development as they were later utilized by the Virginia Central Railroad Company, and the Chesapeake and Ohio Railway Company.<sup>3</sup>

In his own right, Claudius Crozet is an important figure in the history of American Engineering. Born in France, Crozet served with Napoleon. After Napoleon's defeat, Crozet emigrated to the United States where he served on the faculty of the U.S. Military Academy at West Point as an engineering and military Science professor. In 1833 he was appointed principal engineer of the state of Virginia. In this position he involved himself with a number of projects relating to Virginia's development, the tunnels of the Blue Ridge Railroad being one of the last projects of his life.<sup>4</sup> A complete biography of his illustrious life has been written by Colonel William Couper in his book Claudius Crozet, Charlottesville: Historical Publishing Company, 1936.

The eastern most of the four tunnels built by Crozet for the Blue Ridge Railroad, the Greenwood Tunnel is 536 feet long and arched throughout with brick. It was completed in 1853. According to a report written by Crozet in 1850, excavations for the tunnel had encountered clay, soft pan and rotten slate, a mixture "of most unfavorable character for tunneling".<sup>5</sup>

Throughout its construction, conditions at the tunnel remained hazardous and there was some trouble keeping laborers at their jobs.<sup>6</sup> In 1856, Crozet reported to the Virginia Board of Public Works that the total cost of the Greenwood tunnel was 74,400 dollars, or about \$138.30 per running foot.<sup>7</sup> Soon afterwards the tunnel was put into operation, a status it retained until the mid-twentieth century when the portals were bricked up and train service was transferred to another tunnel.

- 1) Nelson, James P., The History of the Chesapeake Ohio Railroad, Its antecedents and Subsidiaries; Richmond: Lewis Printing Co. Inc., 1927, page 131.
- 2) Nelson, James P., Four Tunnels in the Blue Ridge Region of Virginia, Richmond 1917, page 5.
- 3) OP CIT. Nelson, The History of the Chesapeake and Ohio Railroad, Its Antecedents and Subsidiaries page 146.
- 4) Couper, Colonel William, Claudius Crozet: Soldier - Scholar - Education - Engineer, Charlottesville Virginia: The Historical Publishing Co. Inc., 1936.
- 5) Nelson, James P., Four Tunnels in the Blue Ridge Region of Virginia, Richmond, 1917 page 5.
- 6) Ibid page 6.
- 7) Nelson, James P., The History of the Chesapeake and Ohio Railway, Its Antecedents and Subsidiaries, Richmond: Lewis Printing Co. Inc. 1927, page 136.

ADDENDUM TO:  
BLUE RIDGE RAILROAD, GREENWOOD TUNNEL  
(Chesapeake & Ohio Railroad, Greenwood Tunnel)  
Highway 690 vicinity  
Greenwood vicinity  
Albemarle County  
Virginia

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*HAER VA,2-GREN.V,1-*

FIELD RECORDS

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