

Down The Great Wagon Road: The Ironworking Pennybackers of
Shenandoah County, Virginia

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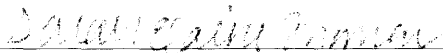
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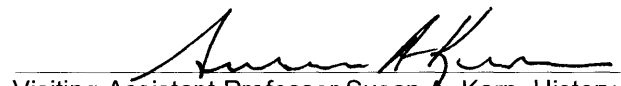


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ABSTRACT PAGE

In the early Virginia backcountry, a diverse group of individuals lived, worked, and interacted every day at furnaces and forges. Redwell Furnace, north of Luray, and Pine Forge, north east of New Market, in Shenandoah County were the earliest and largest operations of their kind in the county. At these ironworking communities, people of Irish, African, and Germanic descent interacted on a daily, if not hourly, basis, making iron stove plates, andirons, plates, utensils, and other utilitarian objects. This diverse furnace population gradually developed in the shadow of the Massanutten Mountain during the late eighteenth century as more settlers migrated down the Great Wagon Road through the Shenandoah Valley. Ironworking became a dominant industry in the county, but also was prevalent throughout the Valley. While the Pennybackers began their ironworking venture solely relying on white workers, they soon took cues from other Shenandoah County residents and bought several enslaved African Americans. Not only were the Pennybackers purchasing and hiring enslaved African Americans to work at Redwell Furnace and Pine Forge, but they also altered the design of their stove plate patterns from German scenes to more Anglo inspired republican imagery. Several members of the family also constructed homes that fit perfectly in the surrounding Shenandoah Valley landscape. Built with symmetrical facades with hall and parlor plans, the exterior of these homes had no hint whatsoever of the German origins of their inhabitants. Through the ownership of slaves and the changing design of the stove plates that they produced and sold, the Pennybacker quickly adapted to Shenandoah Valley society.

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To my friends Laura Purvis and Alison Ross, thank you for helping me measure and explore the built landscape of Redwell Furnace in September 2009. Thank you for also supporting me throughout these years as I worked on this project. Finally, I would like to express my gratitude to my parents, Paul and Sheila, my brother Ben, and Ophelia. Thanks to my father for reading my thesis and offering valuable input, thanks to my mother for helping me talk things through, and thanks to Ophelia for reminding me about the importance of taking a break once in a while.

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Introduction

Amid a furnace stack, a water wheel, several sheds and outbuildings, a spring house, an office building, several houses of various sizes, piles of charcoal, loads of iron ore, carts, and ironworking tools and implements, a community of ironworkers lived and labored in the shadow of the Massanutten Mountain in late eighteenth-century Shenandoah County. Redwell Furnace, located just north of Luray, Virginia, and Pine Forge, located to the northeast of New Market, Virginia, were founded and operated by Derick Pennybacker beginning in 1786; together, this furnace and forge comprised one of the largest and earliest ironworking operations of its kind in Shenandoah County (Figures 1 and 2).



Figure 1: Aerial View of Redwell Furnace, 2010, from Google Earth



Figure 2: Aerial View of Pine Forge, 2010, from Google Earth

Derick Pennybacker and his family traveled from Pennsylvania down the Great Wagon Road to Shenandoah County, Virginia in 1783. They were part of a larger migration down the wagon road into the backcountry of Virginia (Figure 3). Their ancestors were also travelers, moving from the Old World to the new on the eve of the eighteenth century. Thousands of people packed up their things and moved great distances across mountains, rivers, and often continents

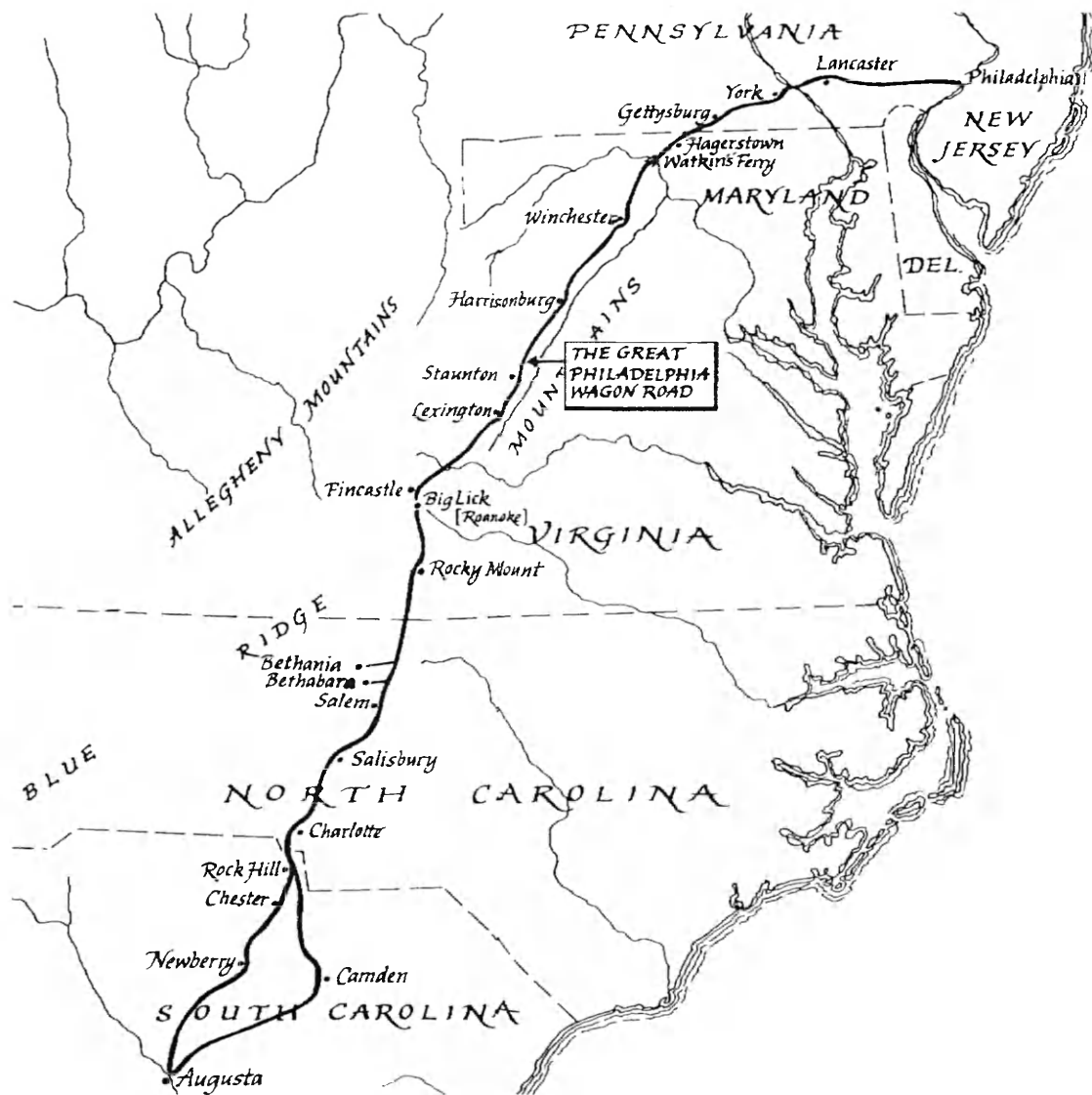


Figure 3: The Great Wagon Road

in search for their proper place in the world. The Pennybackers from the Rhineland region of Germany were one of those families that decided to start fresh in the New World.¹ Their American patriarch Hendrick Pannebecker, who was born in Worms, Germany, died owning over four thousand acres in Pennsylvania.² Traveling down the Great Wagon Road in 1783, Derick, his son Benjamin, and their family hoped to be just as successful as their grandfather Hendrick. To achieve this success, they put their hopes in iron, stone, and waterpower.

¹ Their last name changes depending on the time and place; variations include Pennybacker, Pannebacker, and Pennypacker.

² John W. Jordan, *Colonial and Revolutionary Families of Philadelphia*, (New York, New York: Lewis Publishing Company, 1911), 490-495.

White people began the settlement of the Shenandoah Valley in the early to mid-eighteenth century, but it was not until after the Revolutionary War that a

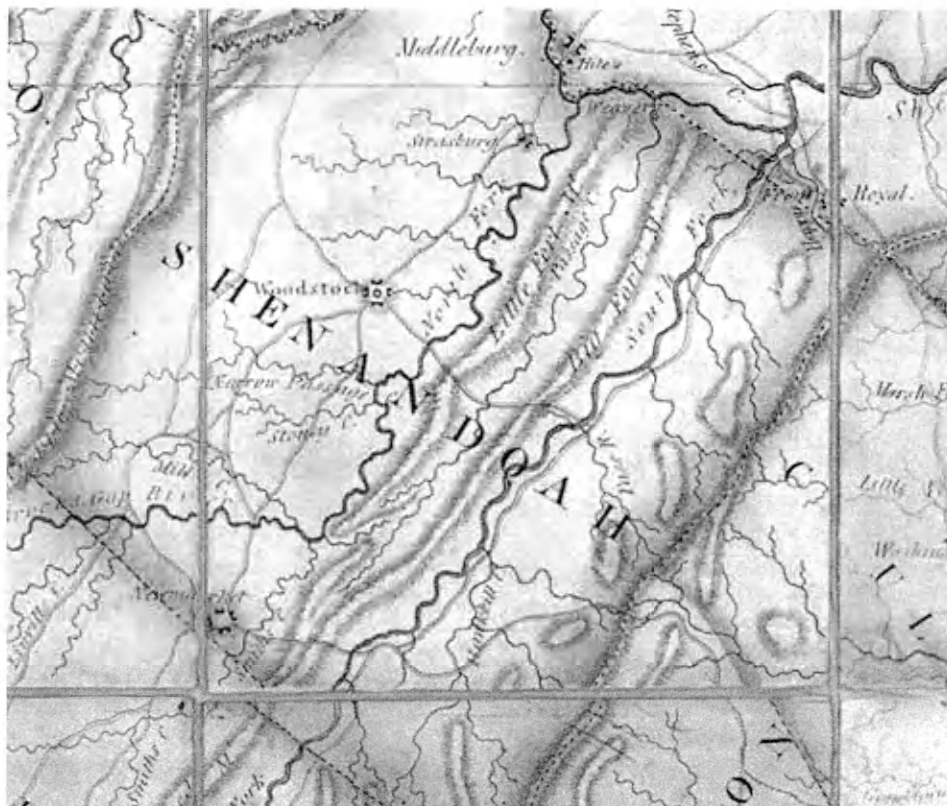


Figure 4: Shenandoah County, Detail of "A Map of Virginia," 1807

distinctive culture emerged (Figure 4).³ The Great Wagon Road is important in understanding the cultural development of not only the Shenandoah Valley and many points southward, but also to our understanding of the Pennybacker family. Derick Pennybacker himself traveled down the Valley Road into the town of Woodstock in Shenandoah County in 1781 (Figure 5). From there, he moved east across the North branch of the Shenandoah River and the Massanutten Mountain into the Page Valley. There, Derick and his son Benjamin found the perfect spot to start their own furnace on the banks of Hawksbill Creek, near a

³ Warren Hofstra, *The Planting of New Virginia: Settlement and Landscape in the Shenandoah Valley*, (Baltimore, Maryland: John Hopkins University Press), 2004, 8.

vigorous spring in the eastern shadow of the Massanutten Mountain. The Pennybackers called this place Redwell Furnace. By 1785, they had put their newly constructed furnace stack in blast.⁴

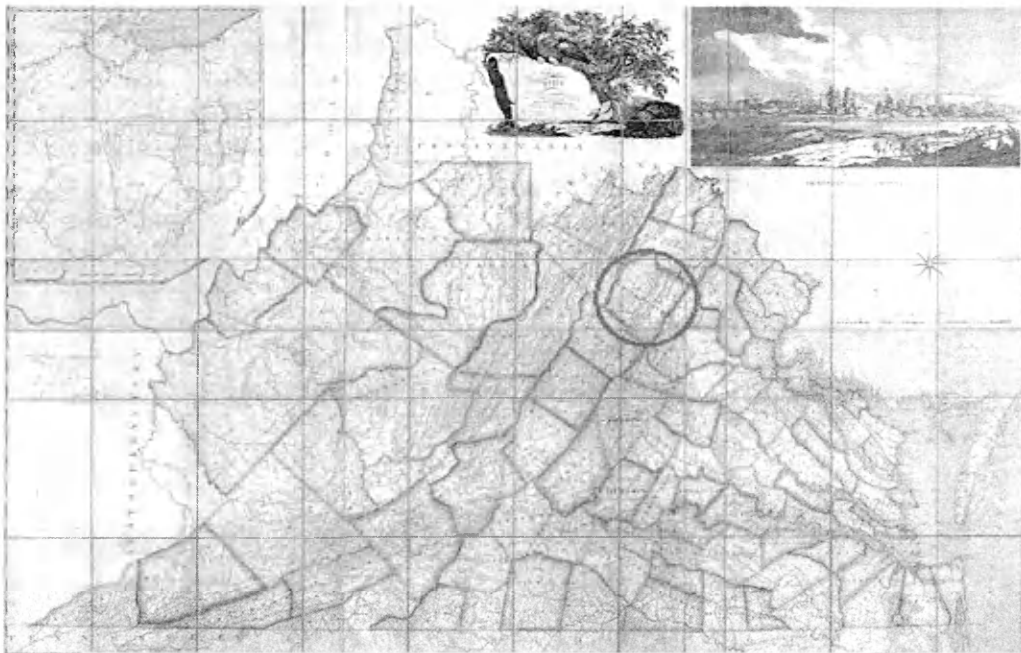


Figure 5: "A Map of Virginia: formed from actual surveys, and the latest as well as the most accurate observations," 1807.

Derick Pennybacker, his son Benjamin, and their large family were not lone travelers. By the 1770s, the road went from Philadelphia to Georgia, following the Shenandoah Valley for some of its journey (Figure 6).⁵ Thousands of people, including some hopeful ironworkers, traveled down the Great Wagon Road from western Pennsylvania into the valley of Virginia and beyond in the

⁴ "Redwell Furnace," Museum of Early Southern Decorative Arts (MESDA) Research Files, (July 10, 2009).

⁵ Warren R. Hofstra and Karl Raitz, "Introduction: The Valley Road in Time and Space," in *The Great Valley Road of Virginia: Shenandoah Landscapes from Prehistory to the Present*, eds. Warren R. Hofstra and Karl Raitz, (Charlottesville, Virginia: University of Virginia Press, 2010), 6.

eighteenth century.⁶ Diverse groups of people and their goods, along with years of accumulated knowledge about craft skills, technology, industrial processes, culture, and economic strategies for survival and success in new lands, came into the Shenandoah Valley. Among Germans, Scots-Irish, English, and African American settlers were several other migrating families that were acquaintances



Figure 6: Atlas of Shenandoah County, showing Columbia Furnace, Van Buren Furnace, and Mine Run Furnace, circa 1885

⁶ Gabrielle M. Lanier, "An Early Road to the Old West, 1780-1837," in *The Great Valley Road of Virginia: Shenandoah Landscapes from Prehistory to the Present*, eds. Warren R. Hofstra and Karl Raitz, (Charlottesville, Virginia: University of Virginia Press), 2010, 108-134

with the Pennybackers from Pennsylvania. The Pennybackers surrounded themselves with families, like the Samuels and Mayberrys, who had also just arrived from Pennsylvania.⁷ Pennybacker and his ironworking family were the start of an important industry, not only in the county itself, but also in the Shenandoah Valley. This industry and the traveling German Pennsylvanians who dominated it came to transform, and in turn, were transformed by the people and culture of early nineteenth-century Shenandoah Valley.

This thesis explores the movement of both ironworkers themselves and the skill set that ironworking processes require as people and their knowledge moved from Pennsylvania to Shenandoah County, Virginia. The Pennybackers produced iron objects and constructed new buildings upon their arrival in the county; these objects provide information about their new life there. Focusing on the development and construction of Redwell Furnace and Pine Forge, early community life, and the iron goods that workers produced at these sites shows that an industry with roots in Pennsylvania Germanic culture gradually developed into an industry more American in its outlook. Although the industrial processes are important to this story, my main focus will be on the people themselves, especially Derick Pennybacker, his eldest son Benjamin, and Benjamin's son, George. Although Derick Pennybacker participated in important events and historical trends of his time, it is in the small, everyday moments where one learns most about the Pennybacker men as fathers, brothers, husbands, and

⁷ According to family tradition, Derik Pennybacker took his nephew, Isaac Samuels, under his wing after the death of Isaac's father. Isaac married Derik's daughter, Elizabeth, on March 6, 1785. Jordan Dodd. *Virginia Marriages to 1800*. (Provo, Utah: Precision Indexing Publishers, 1997).

iron-masters. We will dwell in these everyday moments to learn big ideas in small places.

Although the iron industry would later dominate the county with thirteen furnace and forges by the 1880s, when Derick Pennybacker arrived in the county in the early 1780s, ironworking had yet to make much of an impact along the Shenandoah River.⁸ Another Pennsylvanian, Isaac Zane, previously migrated to Frederick County in the northern Shenandoah Valley, where he founded and successfully operated Marlboro Furnace beginning in 1767.⁹ Zane's Marlboro Furnace and the Pennybacker's furnace were pioneering ironworks in an industry that rapidly expanded in nineteenth-century Virginia.¹⁰

The development of Redwell Furnace and Pine Forge as productive communities happened during an important period in the history of Virginia's backcountry. Although the settlement of Shenandoah Valley began in the first decades of the eighteenth century, a distinctive culture and value set emerged as settlers constructed permanent buildings in after the Revolutionary War.¹¹ While travelers saw the Shenandoah Valley as "a society of propertied farmers living in republican simplicity and virtue," the reality of the situation was not as pleasant as it appeared. Historian Warren Hofstra writes that by 1790, one out of every

⁸ John Walter Wayland, *A History of Shenandoah County, Virginia*, (Strasburg, Virginia: Shenandoah Publishing House), 1969, 236.

⁹ John Bivens, Jr., "Decorative Cast Iron on the Virginia Frontier," *Antiques Magazine*, (March 1972), 535.

¹⁰ John Bezis-Selfa, *Forging America: Ironworkers, Adventurers, and the Industrial Revolution*, (Ithaca, New York: Cornell University Press, 2004), 23.

¹¹ Warren Hofstra, *The Planting of New Virginia: Settlement and Landscape in the Shenandoah Valley*, (Baltimore, Maryland: John Hopkins University Press), 2004, 8. Frederick County (which includes present day Shenandoah County and others) and Augusta County were founded in 1745. Towns were laid out and founded during this period, the first round of development in the Shenandoah Valley.

seven residents of the Valley was an enslaved person.¹² While Shenandoah

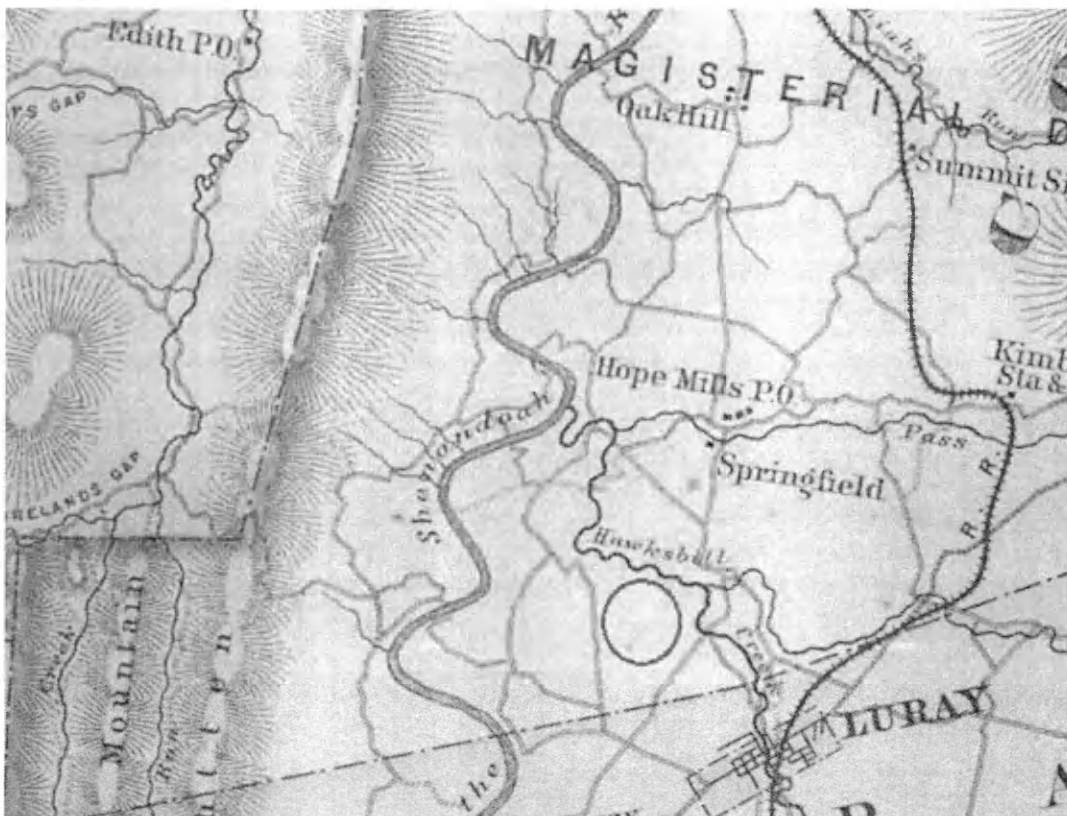


Figure 7: Redwell Furnace, circa 1885, on Hawksbill Creek, just north of Luray

County, established in 1772, had the smallest population of enslaved African Americans in the Valley, their presence is nonetheless significant.

Additionally, Redwell Furnace and Pine Forge also were part of a large expansion of ironworking into western settlements of eastern North America in the late eighteenth century (Figure 7). Between 1784 and 1800, ironmasters founded twenty-seven furnaces and forty-nine forges in Virginia and New Jersey—this is a much greater number of ironworks opened than during the

¹² Warren Hofstra, *The Planting of New Virginia: Settlement and Landscape in the Shenandoah Valley*, 337.

colonial period.¹³ According to historian Ronald Lewis, the iron industry had its largest expansion in Virginia's valley region, as ironmasters found it profitable to transport iron from the Shenandoah River to the Potomac River to the cities of Baltimore, Maryland and Washington.¹⁴ By the 1780s, Virginia furnaces had tremendous output, producing four thousand to five thousand tons of pig iron and about eight hundred tons of iron bars annually.¹⁵

Derick Pennybacker founded not only Redwell Furnace, but also expanded his ironworks with the purchase of a forge property, called Pine Forge, just north of New Market, Virginia. There, ironworkers pounded pig iron and iron bars with pounding hammers at the hot fire of the forge. While the Pennybackers eventually sold Redwell furnace, the family held onto to Pine Forge for almost fifty years. Although the Pennybackers operated Pine Forge longer than Redwell, the furnace is still important to our story. The stuff of Redwell Furnace—especially its buildings, objects, and stove plates—comprise the first section of this thesis. The details of Redwell's built environment and changing stove plate patterns show that the family quickly adapted to the Shenandoah Valley, as they gradually produced designs of a more Anglo nature. The second section of thesis deals with Pine Forge. Although Derick Pennybacker did own and operate the forge during its early years, Derick's son Benjamin was its principal ironmaster.

¹³ John Bezis-Selfa, *Forging America: Ironworkers, Adventurers, and the Industrial Revolution*, (Ithaca, New York: Cornell University Press), 2004, 23.

¹⁴ Ronald Lewis, *Coal, Iron, and Slaves*, (Connecticut, Greenwood Press), 1979, 16.

¹⁵ Kathleen Bruce, *Virginia Iron Manufacture in the Slave Era*. (New York, New York: A.M. Kelley), 1968, 66.

Acquiring Pine Forge from his father, Benjamin and two of his brothers-in-law operated the forge together until Benjamin became sole owner in 1818. An account book from his last years at Pine Forge and documentary records of the site's built landscape show how Benjamin made deep roots in Shenandoah County through his career as an ironmaster. He articulated his status as a prosperous ironmaster by constructing a two-story house at Pine Forge, full of architectural details of his success and craft. Isaac Samuels, who married Benjamin's sister and was a partner at Pine Forge, also constructed his own home in the early nineteenth century. In building a large two-story brick home with a slave quarter, Samuels committed his growing family to not only the developing slave culture of the Shenandoah Valley, but also to an economic system that utilized slavery. While Benjamin's son was less successful operating Pine Forge than his father, the Samuels branch prospered as they served important positions in the county. The legacy of the Pennybacker family continued, but was no longer based primarily upon ironworking. Some of the first-generation of children born on Shenandoah County soil moved away to new frontier lands in Ohio, looking for promise just as their grandfather Derick did in the 1780s. Many chose to stay in the valley; several men of the Samuels branch served in the federal congress for Shenandoah County.

Historiography

Historians have worked extensively on the ironworks in Pennsylvania and the Chesapeake region of Virginia and Maryland, but few have approached these sites by exploring the buildings, landscapes, or material culture of late eighteenth

and early nineteenth-century ironworks. At Redwell Furnace today, slag, black charcoal, and stoneware sherds offer a glimpse of the material landscape of Redwell's past. Not only does a rich material landscape remain, but some of Redwell's iron products still survive, especially its stove plates. Much of the historical scholarship surrounding Redwell Furnace has focused on these objects of production through connoisseurship and the decorative arts. Art historian Jennifer Lindner mentions Redwell's stove plates in her recent article examining firebacks in the Winterthur Collections in the *Winterthur Portfolio*.¹⁶ MESDA's John Bivens, Jr. also writes about stove plates and their decoration in the Shenandoah Valley, focusing on Marlboro Ironworks in Frederick County.¹⁷ Decorative arts pioneering collector Henry Chapman Mercer has a great deal to discuss when he explores the meaning behind the imagery in stove plates of Pennsylvania origin.¹⁸ Charles Dew's extensive work on Buffalo Forge in Augusta County and Tredegar Ironworks in Richmond has done much to advance the field; as significant as his work is, however, he spends little time focusing on buildings and landscapes of his sites.¹⁹

Some historians have mentioned that enslaved people worked at Redwell, but scholars to date have not yet explored the varied community life or everyday existence of the enslaved and free people who called Redwell Furnace and Pine

¹⁶ Jennifer N. Lindner, "From the Collection: Stylistic Influences and Design Sources: An Examination of Winterthur's "Fox and Crane" Fireback," *Winterthur Portfolio* 37, no. 1, (Spring 2002), 67-76.

¹⁷ John Bivens, Jr., "Decorative Cast Iron on the Virginia Frontier," *Antiques Magazine*, (March 1972), 535- 539.

¹⁸ Henry Chapman Mercer, *The Bible in Iron Pictured Stoves and Stoveplates of the Pennsylvania Germans*, (Doylestown, Pennsylvania: Bucks County Historical Society), 1961.

¹⁹ Charles Dew, *Bond of Iron: Master and Slave at Buffalo Forge*, (New York, New York: W.W. Norton), 1994.

Forge their homes. In fact, I was introduced to Redwell Furnace through the Museum of Early Southern Decorative Arts's collection of Redwell stove plates and their extensive archive of Pennybacker documents, such as chancery court records, probate inventories, and newspaper articles about ironworking.

Although much of the historical inquiry surrounding the Redwell Ironworks has been amateur in nature, this scholarship provides a great background on the site and helps academic historians know where to begin their own inquiry at these sites.

The Museum of Early Southern Decorative Arts, or MESDA, is a repository of not just documentary records on Redwell Furnace and Pine Forge—the museum has a collection of several of Redwell's stove plates on display. They also have one of the most important decorative stove plates from Marlboro Furnace in Frederick County. Their extensive collection of Valley ironworking is not surprising, however, since the museum remains one of the best sources for objects of early American material culture. MESDA's archive contains a detailed collection of chancery records, transcriptions of newspapers that mention Redwell Furnace, and a mid-1790s account book of Redwell. Much of this information was compiled by Shenandoah Valley historian H.E. Comstock for MESDA in the 1980s.²⁰ Studying both the documents and stove plates themselves are a great way to begin researching the development of Pennybacker's ironworks in the Shenandoah Valley.

²⁰ H.E. Comstock, "The Redwell Ironworks," *Journal of Early Southern Decorative Arts* 7, no. 1, (May 1981).

The buildings and industrial structures of the Redwell ironworking community are unconventional, but important primary sources. There are four extant buildings at Redwell located along the hill where much of the industrial activity took place. Hawksbill Creek and Yeager's Spring, the two water features that powered Redwell's mill, are still dominant elements of the landscape. In September 2009, I visited Redwell Furnace with two colleagues from the University of Virginia School of Architecture; we made measured drawings of two buildings, the office and the Spring House, and took extensive notes on the other buildings and surrounding landscape. Although the furnace itself no longer remains, the extant buildings and a few preserved acres are important sources for understanding the daily experience of ironworkers. A 2005 survey by J. Daniel Pezzoni and James R. Graves of the Redwell Historic District and the Virginia Historical Inventory report by Vivian Black in 1938 are also important resources. Just north of New Market along the Great Wagon Road and current Route 11 is the location of Pine Forge. There are no extant buildings or features at Pine Forge today, but a 1930s Virginia Historical Inventory survey and photograph provide valuable information for studying forge operations and everyday life of furnace workers.²¹

Buildings and objects of this disappeared industrial community remain extant—but importantly, Derick Pennybacker and his son Benjamin, as well as subsequent ironmasters, have left behind an extensive documentary record of both Redwell Furnace and Pine Forge. There are numerous account books,

²¹ "Pine Forge," *Virginia Historic Inventory of the Works Progress Administration*, as quoted in Harry Long, "Pine Forge," unpublished manuscript in the possession of the author, May 2002.

such as the Pine Forge Ledger from 1799-1802 at the University of Virginia Special Collections Library, the Isabella Furnace Account Book from the 1820s at Swem Library's Special Collections, and the Redwell Furnace Account book from the 1790s at the American Antiquarian Society in Massachusetts.²² The most useful account book for studying the early years of ironworking is the Pine Forge Account Book, which I transcribed in 2010.²³ An earlier account book, detailing operations of Redwell under Derick Pennybacker, lists iron foundry business and general merchandise purchases, as well as the 1792 land deed, of the beginning of furnace operations in 1788 to 1795.²⁴ While there are other extant account books for these two sites, I was only able to find microfilm or photocopies, instead of originals, and much of the information is illegible.²⁵

Last year, I wrote my master's thesis in architectural history at the University of Virginia on Redwell Furnace and Pine Forge, using these ironworking sites as a case study to address the feasibility of using architectural history to map slavery on the landscape of early American industrial sites. While I found no evidence to suggest that blacks and whites cohabitated at Redwell and Pine Forge, the extant buildings and surviving documentary record implies

²² Isabella Furnace Account Book, Manuscripts and Rare Books Department, Swem Library, College of William and Mary. Glenn Papers, Manuscripts and Rare Books Department, Swem Library, College of William and Mary.

Derik Pennybacker, "Redwell Furnace Account Book, 1788-1795," Manuscript Department, American Antiquarian Society (AAS), Microfilm in Possession of Author.

²³ *Pine Forge Ledger*, Accession # 9888, Albert and Shirley Small Special Collections Library, University of Virginia (Charlottesville, Virginia), transcription by Sarah Thomas, January 2010.

²⁴ Derik Pennybacker, "Redwell Furnace Account Book, 1788-1795," AAS.

²⁵ Charles Dew compiled copies of account books and ledgers of early Southern industries, and several of Redwell's account books are included in these microfilm reels. Charles B. Dew, *Slavery in Ante-bellum Southern Industries Series C, Selections from the Virginia Historical Society*. Black Studies Research Resources. (Bethesda, MD: University Publications of America), 1995.

that blacks and whites may have lived in six wooden houses or in the second story of the office or Spring House buildings. Derick Pennybacker constructed six wooden buildings for workers' housing, and there is no surviving indication that he intended these structures to be segregated spaces. Many contemporaries on agricultural plantations writing in the same period as Derick Pennybacker refer to housing explicitly constructed for enslaved workers, employing adjectives like Negro, black, or slave. On the other hand, Pennybacker ordered "six houses for workmen, 16-20 feet square, log with hard floors and sealed with clapboard," to be constructed, not specifying that these houses were for whites or blacks alone. It is a slippery slope to argue that blacks and whites may have cohabitated because no documentary evidence suggests that Pennybacker specified these spaces were solely for blacks or solely for whites, but architectural evidence also points to these conclusions. As there is no visible distinction that signifies that these spaces were solely for white or blacks alone, I argue that it is possible that workers lived in the upper floors of both Yeager's Spring building and the office.

Ironworking in Pennsylvania and the Pennybackers

Our story on an ironworking family from Pennsylvania begins where Derick Pennybacker was born—in Providence Township in Montgomery County. We need to get a background on both the Pennybackers and ironworking in Pennsylvania before we can meet up with Derick and Benjamin's new ironworks in Shenandoah County. Surprising or not, the Pennybacker family was not known for ironworking skills. Derick's grandfather, Hendrick Pannebacker, was

the original Pennybacker who moved from Germany to America. Hendrik was actually a land surveyor.²⁶ Some nineteenth-century historians believe that Hendrick might have traveled over with William Penn himself in 1699.²⁷ Hendrick Pannebecker was born near Worms, Germany. By his death in 1754, he owned more than four thousand acres of land in Pennsylvania, surveyed many roads and manors for the Penns, and spoke English, Dutch, and German.²⁸

Pannebecker divided his land among his five sons, and according to one of his descendants, they became millers. Although he was not directly involved in ironworking, one of Pannebecker's teamsters, Abraham Yungling, hauled iron from Reading Furnace, Pool Forge, Warwick, Furnace, Coventry Forge, and other recently established ironworking sites around Philadelphia, Chester, and Berks counties. Thus, Derick, and later his son Benjamin, grew up in a prosperous ironworking region. Hendrick Pannebacker married Eve Umstat, who was also a recent immigrant from the Rhineland, in Germantown, Pennsylvania in 1699; the couple had eight children. Called "the last of the Dutch Patroons in Pennsylvania," Derick Pennybacker's first ancestor in the New World had a long and prosperous life, dying when he was eighty years old.²⁹ Derick

²⁶ John W. Jordan, *Colonial and Revolutionary Families of Philadelphia*, (New York, New York: Lewis Publishing Company, 1911), 490-495.

²⁷ Betty Jo Weaver Windel, *Yadon-Pennybacker History*, (Vinita, Oklahoma: B.J.W. Windel, 1990), 23.

²⁸ Jordan, 480. Pannebacker was born in Flomborn, Germany on March 21, 1674 although his family is of Dutch origin. Samuel Whitaker Pennypacker, "Bebber's Township and the Dutch Patroons of Pennsylvania," *The Pennsylvania Magazine of History and Biography*, vol. 31, no. 1 (1907), 1, 18.

²⁹ Pennypacker, 18.

Pennybacker's father, John, was Hendrick and Eve's fourth son. John lived in Providence Township and died in 1784.³⁰

By the time of his father's death, Derick and his son Benjamin had left the Perkiomen region of Pennsylvania in hopes of finding greener pastures in Maryland. It is exactly unclear when father and son moved there, but it was most likely in the early 1770s, since Benjamin served for some time as a private for Maryland in the Revolutionary War. Although Benjamin fought in one of the principal historical events of his time, the war itself apparently did not have much effect on his life. In fact, the only primary evidence that he was in the war comes from the Revolutionary War Rolls themselves.³¹ During their time in Maryland in the 1770s, the Pennybackers also worked at their first ironworking venture, probably at Mount Aetna Furnace, near Sharpsburg.³² Unfortunately, a sudden freshet, or flash flood, destroyed their furnace in the spring of 1781, so they decided to move again—this time, Derick, Benjamin, and their growing family traveled down the Great Wagon Road into the Shenandoah Valley of Virginia (Figure 8).³³

Some historians believe that Pennybacker learned his craft at Hopewell in Berks County, so the Hopewell Ironworks is a great place to begin a discussion

³⁰ Pennybacker, 18-19.

³¹ Revolutionary War Rolls, 1775-1783, Roll Box 34; (National Archives Microfilm Publication M246, 138 rolls); War Department Collection of Revolutionary War Records, Record Group 93. (Washington, D.C.: National Archives).

³² H.E. Comstock, "The Redwell Furnace," *Journal of Early Southern Decorative Arts* 7, no.1, (May 1981), 42. A freshet is another word for a strong flood caused by heavy rain or fast spring thaw.

³³ Wayland, *A History of Shenandoah County, Virginia*, 236.

of the Pennsylvania tradition of ironworking.

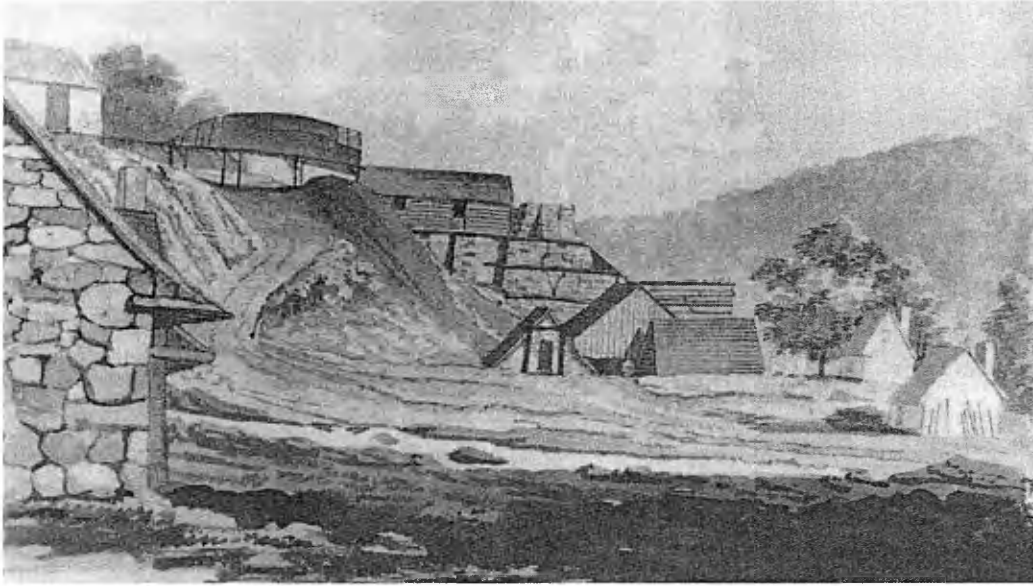


Figure 8: Warwick Ironworks, Pennsylvania, 1804. Watercolor by Benjamin Latrobe.

The layout of the well-preserved Hopewell provides a general plan of how most late eighteenth-century ironworks were arranged. Since we know that the Pennybackers lived in an ironworking region of Pennsylvania and the family had a small connection with the surrounding furnaces and forges, Derick Pennybacker might have based Redwell's or Pine Forge's arrangement on this sort of Pennsylvania layout.³⁴

Hopewell's furnace stack, like most ironworks, was located near a water source, usually a creek, river, or spring, that flowed through the site. Water

³⁴ Historians Arthur Cecil Bining, Joseph Walker, Robert Gordon, and Patrick Malone have done a great deal of work on Hopewell.

flowed through a headrace to a wheel that operated bellows to power the furnace

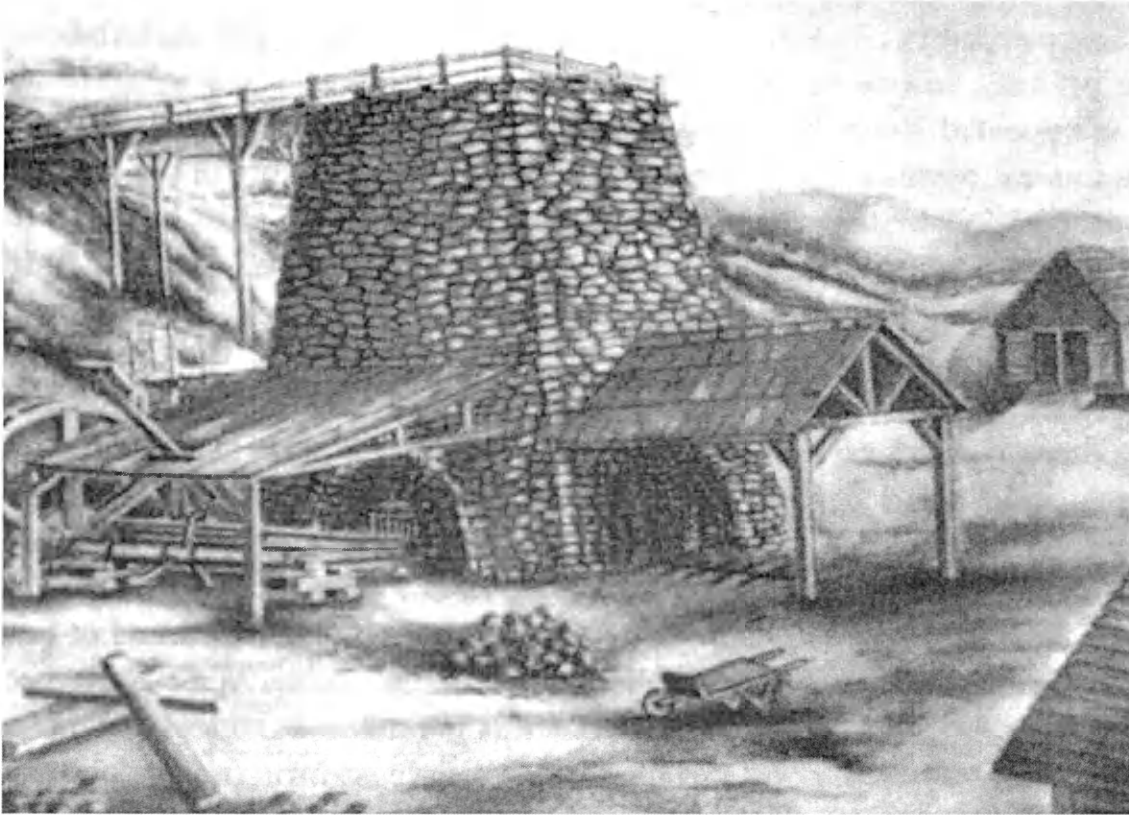


Figure 9: Eighteenth-Century Blast Furnace, Built into a Hillside

(Figure 9). In the Pennsylvania tradition, furnaces were twenty-five to thirty-five feet high and constructed of limestone (Figure 10).³⁵ In addition, the furnace was usually built into a hillside, which allowed workers to easily load the stack. With a skilled crew loading the stone stack, the furnace produced iron—this process is referred to as being in blast. Since furnaces were in blast for most of the year, weather-permitting, ironworkers needed a steady supply of charcoal to ensure a continuous operation. Hopewell consumed approximately 840 bushels of charcoal, or twenty-one cords of wood, every twenty-four hours, so workers

³⁵ Arthur Cecil Bining, *Pennsylvania Iron Manufacture in the Eighteenth Century*, (Harrisburg, Pennsylvania: Pennsylvania Historical Commission), 1938, 62-65.

monitored and filled the charcoal storage buildings constantly.³⁶ Buildings that supported the infrastructure of the furnace were located near the stack itself, such as a casting house, storage sheds for charcoal and ore, a charging bridge,



Figure 10: A Piece of Slag Found at Redwell Furnace, 2009

³⁶ Bining, 59, 62-65.

and a building that housed the blowing engine. A building for the blacksmith's work and shop was also near the furnace stack. Other buildings included the office and store, sheds for animals, and buildings for the storage of wagons and ironworking implements; these structures were usually no more than half a mile from the furnace. Workers lived in housing just outside the work area of the furnace.³⁷

A founder was in charge of iron operations at Hopewell. White workers were the main source of labor, but some African Americans did work in iron in Pennsylvania. Without the skill, close supervision, and instructions of the founder, the success of a blast was unlikely. Monitoring the blast was a full-time job—once a furnace blast began, it continued twenty-four hours a day until adverse weather occurred or the charcoal ran out. Ironworking was grueling and monotonous, but workers sometimes had an extended break during the winter because of poor conditions and frozen water sources. To begin a blast, workers put charcoal in the furnace stack and lit it at the top. Under the supervision of the founder, workers then waited till the charcoal burned its way down the twenty-five foot stack, then refilled it with charcoal, and repeated the process till the stack was hot enough to smelt iron ore; this process took several days. Once the furnace was ready to smelt, fillers placed iron ore, limestone, and charcoal into the top of the stack—they had to load it up every half an hour to forty-five minutes.

³⁷Robert B. Gordon and Patrick M. Malone, *The Texture of Industry: An Archaeological View of the Industrialization of North America*, (New York City, New York: Oxford University Press), 1994, 82-83.

As fillers loaded the stack periodically with ore, limestone, and charcoal, the founder monitored the blast. It was an exciting time every twelve hours when the keeper tapped the furnace's crucible, which forced liquid iron into trenches at the base of the furnace. Workers, called moulders, took some of this molten iron and placed it into sand-lined moulds as they casted objects like andirons, fire backs, and stove plates.³⁸ A worker, known as the gutterman, monitored these moulds, making sure they were filled with sand and ready to have moulders pour liquid iron into them.³⁹ The rest of the molten iron cooled in trenches at the furnace's base, becoming pig iron once it was fully cooled. Iron was not the

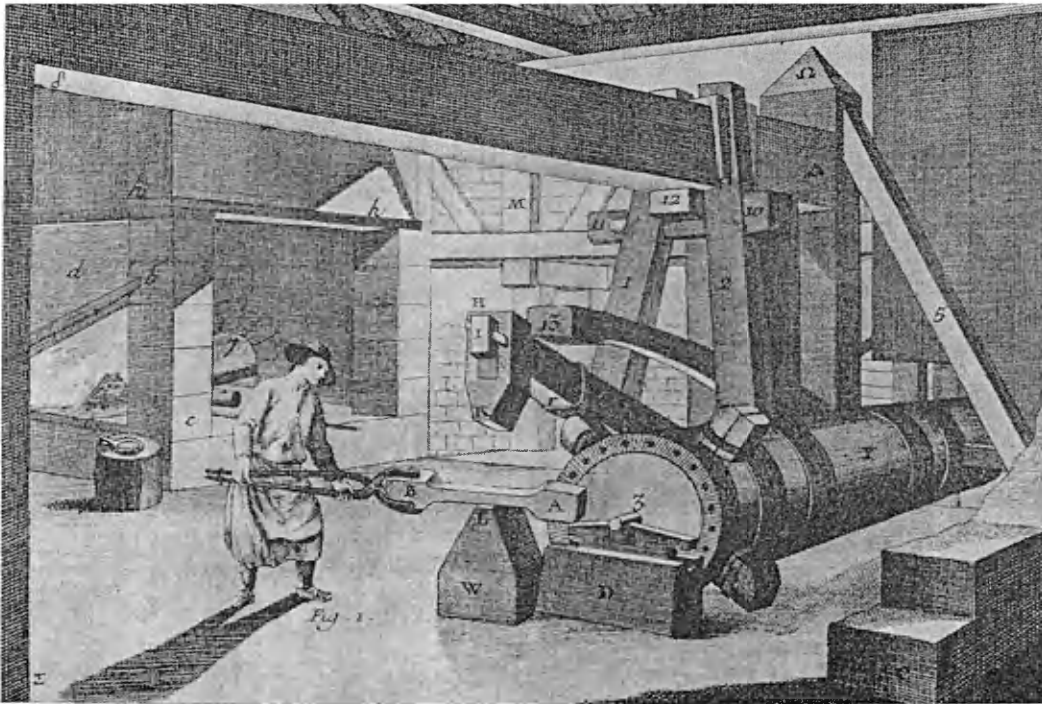


Figure 11: The Interior of a Forge during the Process of Anchovy Making

³⁸ Bezis-Selfa, *Forging America*, 33.

³⁹ Donald Allen Crownover, *Manufacturing and Marketing of Iron Stoves at Hopewell Furnace, 1835- 1844*, 33. "Redwell Furnace Account Book," from *Museum of Early Southern Decorative Arts Research Files*, accessed July 15, 2009, 48.

furnace's only product. Slag was a waste product that a worker known as the banksman drained off the furnace and collected in a pile (Figure 11). Once the banksmen gathered a substantial amount of slag, the founder melted the slag again since there was a small, but valuable, amount of iron in the slag.⁴⁰

Arthur Cecil Bining describes Hopewell as a large, isolated community. An advertisement in the *Pennsylvania Gazette* of October 4, 1770 describes Andover Furnace in western New Jersey, which shared many features with Hopewell Furnace in Pennsylvania. Owner Archibald Stewart advertised his furnace, as situated “on a Branch of Paquest River, together with an elegant Stone Dwelling-house, Stables, Smith’s Shop, Spring-house, and a Number of Outhouses for Workmen; a large Coalhouse...”⁴¹ “The mansion house, the homes for workers, the furnace and the forge or forges, the iron mines, the charcoal house, the dense woods which furnished the material for making charcoal, the office, the store, the gristmill, the sawmill, the blacksmith shop, the large outside bake oven, the barns, the grain fields, and orchards, were part of a very interesting and almost self-sufficing community,” Bining writes.⁴² In terms of workers’ housing, Bining does write that in the different regions of Pennsylvania, workers’ housing was constructed of diverse materials, but he does not distinguish between housing for whites and blacks. In central and western parts of the state, for example, Bining notes that ironworkers mostly lived in log or

⁴⁰ The slag output of a furnace was roughly equal to half the volume of ore put in the furnace. Robert B. Gordon, *A Landscape Transformed: The Ironmaking District of Salisbury, Connecticut*. (Oxford, England: Oxford University Press), 2001, 59.

⁴¹ Charles S. Boyer, *Early Furnaces and Forges in New Jersey*, (Philadelphia, Pennsylvania: University of Pennsylvania Press), 1931 (1963), 27.

⁴² Bining, 38

wooden cabins. In the east, workers typically lived in small stone houses with stone chimneys.⁴³

Joseph Walker provides an interesting description of workers' housing at Hopewell. Although there was a company store at Hopewell for its workers, not all workers lived in the immediate area surrounding the furnace. Some workers, such as colliers, miners, and woodchoppers, Walker writes, lived miles away from the furnace stack in a remote wooded area. Sometimes, woodchoppers were neighboring farmers, who earned extra money in the winter by supplying colliers with wood. Most workers' homes were impermanent, wooden buildings that are no longer extant, Walker asserts. Some workers owned their own homes while others rented their homes from Hopewell shareholders or local landlords. The documentary record thus provides one of the best sources for the domestic situation of Hopewell's white and black workers. Tax records show that the company owned fourteen tenant houses in 1855; long-time resident Harker Long remembered that there were fourteen houses close to the furnace at its close in 1883.⁴⁴

Just as Derick Pennybacker operated both a furnace and a forge, most Pennsylvania ironmasters also had forges in addition to their furnaces. A forge was usually located close to furnace operations, and together a furnace and forge comprise the usual buildings of an ironworks. A forge is where ironworkers further refine recently cooled iron from the base of a furnace with a strong

⁴³ Bining, 32.

⁴⁴ Joseph Walker, *Hopewell Village: The Dynamics of a Nineteenth-Century Iron Making Plantation*, (Philadelphia, Pennsylvania, University of Pennsylvania Press. 1974), 100-102.

hammer, bellows, and a hot fire. An ironmaster can successfully operate a furnace without a forge, but a forge allows him to refine iron into a wider variety of products, which provides more goods to sell. “One Forge or Finery, with three Fire-places, three pair of Bellows, and all the Utensils thereunto belonging...a large and compleat Coal-House, four good framed Dwelling-houses, three of which were made for two Tenements each, for the workmen,” states a *Pennsylvania Gazette* advertisement from October 27, 1763 of Bard’s Iron Works.⁴⁵

At forges, one of the main jobs was transforming pig iron into bar iron, which is also known as merchant bar. Pennsylvania blacksmiths toiled by a hot hearth as they manipulated the refined bar into different kinds of products to be sold later. Ironmasters also chose to sell refined bar iron to people in need of this kind of iron. Forge men, which included both white and black workers in the eighteenth century, further manipulated the majority of merchant bar into more practical products. Forge works produced objects such as a variety of hardware, hoes, chains, shovels, axes, tire iron, shoes, and other tools. They were also called on to repair furnace machinery and often had to shod new shoes for horses.⁴⁶ To understand the process of forge work, it is necessary to understand the interior of a typical forge in the Pennsylvania tradition. Ironworkers labored in two work zones at a forge: the hammer area and the hearth. Made of cast or wrought iron, forge hammers were immense, heavy, and very loud. These hammers were secured to a large piece of hard wood, usually oak, and near the

⁴⁵ Boyer, *Early Furnaces and Forges in New Jersey*, 131.

⁴⁶ Joseph Walker, *Hopewell Village*, 238.

shaft of the water wheel, “the truncations of which caught the... oak beam a little distance behind the hammer head.”⁴⁷ Water wheels powered both the hammer and sometimes the bellows for the fire. The forge’s stone foundation had to be strong enough to stand the powerful blows of the hammer.⁴⁸

The first step in producing refined bar iron was to melt iron pigs, freshly produced during a furnace blast. Once workers gathered the pigs, they prepared their workspace, readied the necessary tools, and stoked up the fire, ensuring that it was at the proper temperature (Figure 12). The next step involved a

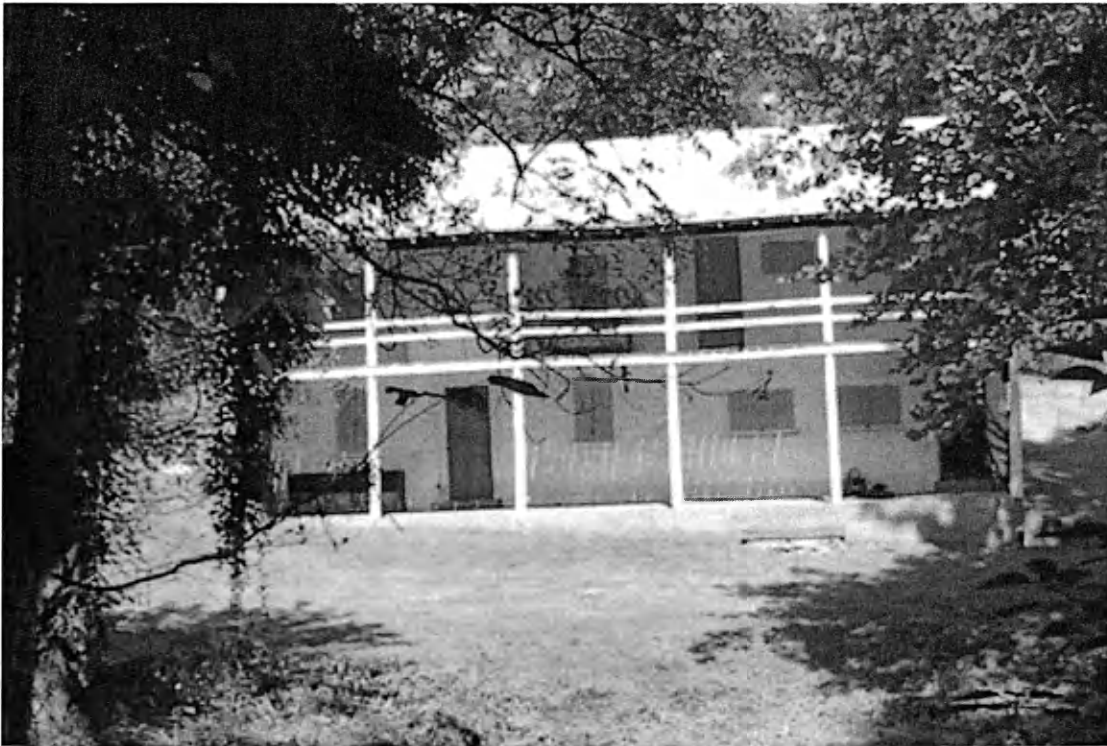


Figure 12: Yeager Spring house, Redwell Furnace

particular forge worker, known as a melter. A melter’s job was to shove several pigs into the hearth, where they soon became a molten mix of iron and its waste

⁴⁷ Bining, *Pennsylvania Iron Manufacture in the Eighteenth-Century*, 84.

⁴⁸ Sometimes the bellows were hand-powered. Bining, *Pennsylvania Iron Manufacture*, 84-85.

product, slag. Melters knew this process extremely well—getting the correct temperature and consistency was crucial. After about an hour, another worker carried the hot iron using tongs and a hook and set the iron underneath a large pounding hammer. Once this hot ball of metal was in place, workers pounded it repeatedly. A melter then carried the hammered iron back to the hearth and liquefied it once more. Forge men repeated this process, alternating the iron between the fire and the hammer four or five times to produce the desired product, an anchony. An anchony “was a piece of malleable iron about six inches square weighing between 80 and 150 pounds.”⁴⁹ Forge men had to soften and hammer anchonies again, removing the knobbed ends with a trip hammer and cutting them into regular sized bars. These bars, which varied in size ranging from several feet to around fourteen feet long and a half to an inch thick, were then ready for finishing by blacksmiths, locksmiths, and others. This was dangerous and monotonous work—the loud and constant pounding of the hammer, the molten iron, and hot fire made for a tense and hazardous working environment.⁵⁰

Section 1- Derick Pennybacker at Redwell Furnace, 1783 to 1802

Derick Pennybacker was a third-generation German American with strong ties to his remaining family and friends in Pennsylvania—several families from his community, in fact, joined him in Shenandoah County. The Samuels and Mayberry families supported the Pennybackers both professionally and

⁴⁹ Charles Dew, *Bond of Iron: Master and Slave at Buffalo Forge*, (New York, New York: W.W. Norton), 1994, 10-11.

⁵⁰ Arthur Cecil Bining, *Pennsylvania Iron Manufacture in the Eighteenth-Century*, 84-85.

personally—Pennybacker daughters married Samuels and Mayberry sons, and these sons formed partnerships with Pennybacker sons. In the early 1780s when Derick first arrived in Shenandoah County with other Pennsylvania families soon to follow, Pennybacker—unknowingly or not—created a German enclave of people in need of what he was providing, namely iron products. These traveling Pennsylvanians might have brought their dismantled stoves and heavy iron tools along with them, but Samuels and Mayberry might have also left these weighty, large stove plates with their relatives who decided to stay in Pennsylvania. There were also many other new arrivals who settled along the Massanutten Mountain who were also in need of stoves to keep them warm from the cold winter wind. Of course, established Shenandoah Valley residents also needed iron tools, stoves, and other iron products.

Stoves, however, were not just about keeping warm at night although their warmth was certainly important—stoves were also about decoration. These decorative scenes were by no means necessary. The fact that in his first blast Derick Pennybacker, or any other ironmasters for that matter, chooses to mould decorative scenes on the first stove plates that he produced is significant. Objects, such as stove plates, buildings, and furniture, cast light onto Pennybacker and his family's new life in Shenandoah County. The Pennybackers took part in the tail end of the settlement of the area in the eighteenth century, so this story is also about the development of a vibrant Southern backcountry culture.

The Pennybackers had accumulated knowledge about ironworking processes from their previous work at Hopewell in Berks County and Mount Aetna near Sharpsburg, Maryland. In the early eighteenth century, Derick Pennybacker's grandfather Hendrick supervised teams that hauled iron from eastern Pennsylvania furnaces and forges to Philadelphia and towns in Chester and Berks County.⁵¹ Derick and his son Benjamin probably worked at Hopewell although their exact positions there are unknown-- it is likely that Derick at least was in a supervisory position in Maryland.⁵² Whether or not any of the Pennybackers actually constructed a furnace stack prior to the construction of the Redwell furnace stack remains a thought-provoking question. Derick certainly understood the ironworking processes enough to quickly supervise the construction of Redwell's furnace stack because his new furnace was in blast by 1786. Eighteenth-century ironworking, however, required a lot more than just a furnace stack. Although no ironworking support structures survived to the present, four Pennybacker buildings remain extant on the Redwell grounds. Documentary records, such as account books, newspaper advertisements and an obituary, and census and court documents, supplement this architectural record of Derick's twenty-year residence in Shenandoah County.

The site of Redwell Furnace was ready made for ironworking. Not only did it have a substantial water supply—from two different sources—but it also had a series of hills that Derick took full advantage of when he constructed

⁵¹ Samuel Whitaker Pennypacker, "Bebber's Township and the Dutch Patroons of Pennsylvania," *The Pennsylvania Magazine of History and Biography*, vol. 31, no. 1 (1907), 18.

⁵² Wayland, 236.

several of Redwell's buildings. Pennybacker had a large crew of white workers, probably comprised of Pennsylvanians as well as Shenandoah County locals, to begin construction of the ironworking complex at Redwell.⁵³ Since a furnace stack is one of the most important structures for ironworking, one of Pennybacker's crews probably began construction of the stack first. The Pennybackers and the workers most likely lived in simple wooden buildings that were quick to construct and only intended to last for a short period of time. While a crew worked to construct the furnace stack, another crew of masons began building stone buildings. Whatever its ultimate intended purpose, Derick Pennybacker utilized the first stone building as a multi-use structure while the crew continued to construct other buildings. These newly constructed stone buildings at Redwell were a sign to neighbors and other Shenandoah County residents that the Pennybackers and the permanent stone structures that they lived in were here to stay.

One of the first buildings that the Pennybackers constructed was the Yeager Spring house (Figure 13). Its rudimentary stonework, along with its relative proximity to the furnace itself, point to an early construction date. The stone building was somewhat hidden from the outside Shenandoah Valley community, so it was a great place for the masons to get their hands dirty before delving into the construction of more noticeable buildings. Built into a hillside overlooking Yeager's Spring pond, ironworkers were able to access both the first and second floors from the outside of the building without walking up or down

⁵³ Wayland, 236?

stairs (Figure 14). The south front, which rises a full two stories, faces the spring pond. The masons used prism mortar joints in their stonework. Although the building itself was moderate in size, its sturdy stonewalls did provide a haven for tired men after a long day or night of ironworking.

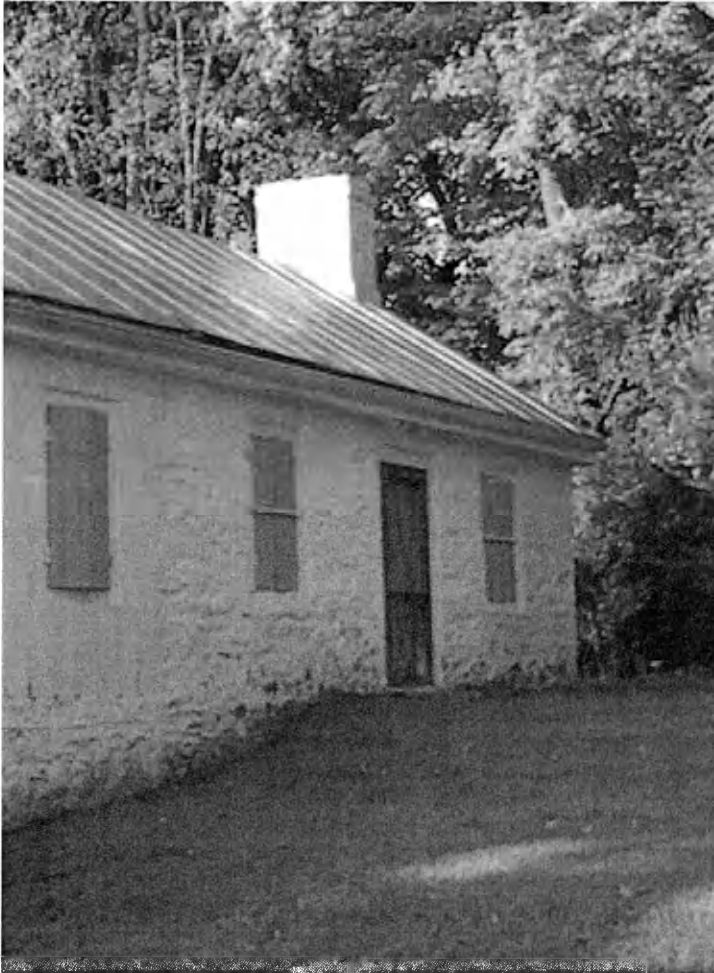


Figure 13: Yeager Spring house, North Elevation

After the building's completion, workers probably ate their meals on the first floor of this building. A cook prepared meals at the large hearth on the first floor (Figure 15). In fact, masons might have been finishing their work on this hearth during one of the first blasts of Redwell furnace. Someone placed a small

iron-warming shelf, possibly a cast-off from an early furnace blast or simply some



Figure 14: Yeager Spring house, First Floor Hearth



Figure 15: Yeager Spring house, Iron Warming Shelf, First Floor Hearth

old iron scraps, into the fireplace's stonework (Figure 16). The cook used the

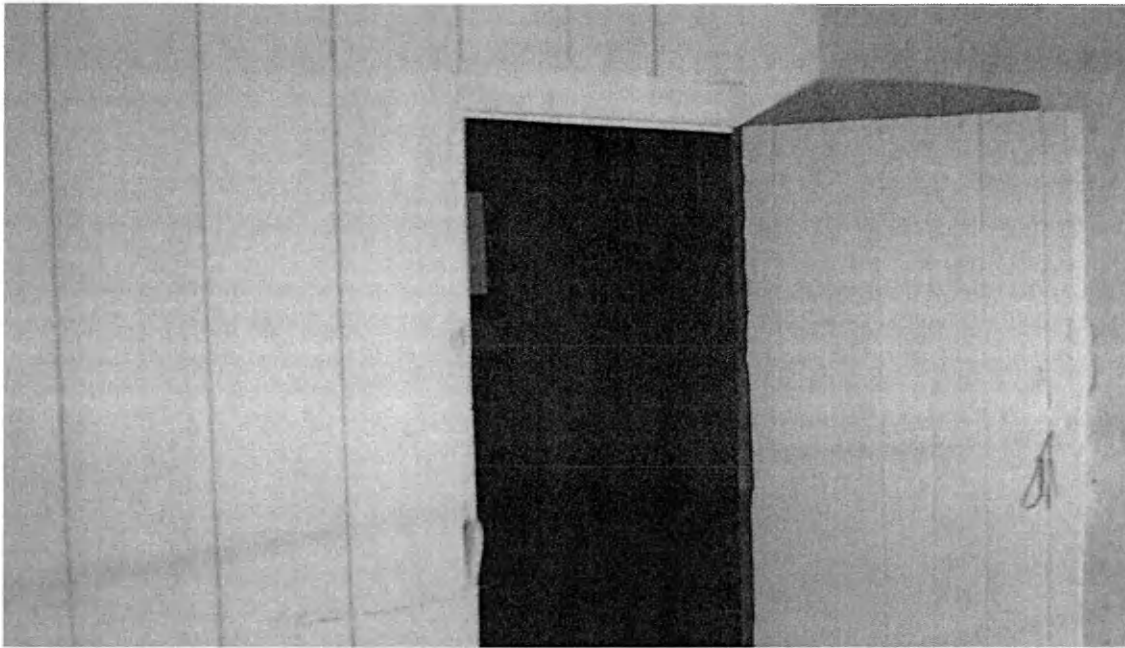


Figure 16: Yeager Spring house, Beaded Board Partition

long warming hook as he or she fixed meals for the Pennybacker workers. The fireplace also features a large iron lintel. This large, open room featured several splayed window openings for the workers to enjoy both fresh air and light in this east-facing building.

Because the building was constructed into the hillside, the Pennybackers and their workers could access the second floor without entering the first floor or walking up the stairs. The second floor was a more private space compared to the first floor. With a hall and parlor plan, this was a domestic space, especially compared to the more communal, open plan of the ground floor. A vertical beaded board partition divides the hall from the parlor on the second floor (Figure 17). The common rafter roof, constructed of hewn framing members, is mortised

and tenoned and fastened with long pegs (Figure 18). Visible from the

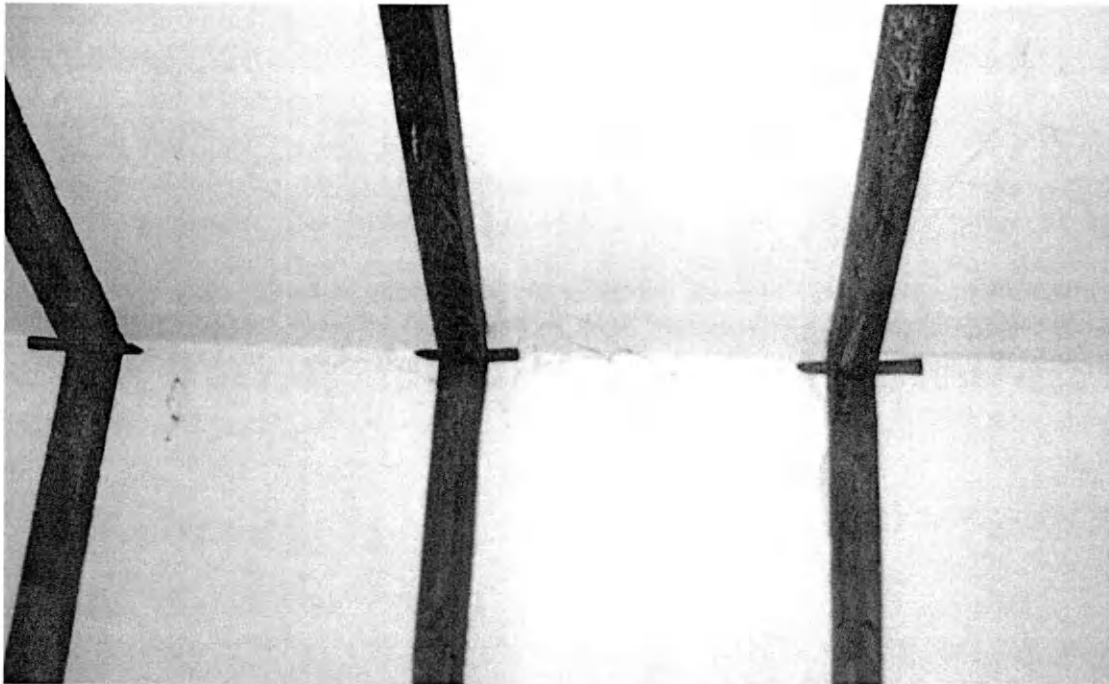


Figure 17: Yeager Spring house, Common Rafter Roof

first floor, the second story's floorboards are sash sawn. The unusually stepped chimney might indicate that the builders had little experience in building chimneys.⁵⁴

While the Yeager Spring house possesses many original features, it is difficult to surmise its changing function throughout the site's long occupation. A few yards away next to this extant building is the foundation of a large stone building that has long since burned down. Since this building's stone remnants were used to construct the 1965 addition to the Yeager Spring house, the stone ruins possess little integrity. This other building by the spring pond was larger, a

⁵⁴ Pezzoni, 7-8.

little less than twice the size of the original section of the Yeager Spring house.⁵⁵ Historians have debated the original use of these buildings. Based on the usual layout of furnace communities, there was probably a building near the furnace that was a kitchen and dining area for workers; this building may be the extant stone building, the nearby stone ruins, or even an impermanent wood building. Historian H.E. Comstock believes that the extant Yeager Spring house served as a living space on the second floor and a dining space on the first floor. The proximity of these two buildings to the spring pond allows easy access to water for cooking and cleaning, which supports an argument for these buildings' domestic use.⁵⁶

The Pennybackers also had their masons construct another stone



Figure 18: Redwell office, Side Elevation

⁵⁵ Ali Ross, Laura Purvis, and Sarah Thomas, "Field Notes on Redwell Furnace," September 18, 2009.

⁵⁶ Pezzoni, 16.

building, which became known as the office, early in their occupancy on the Redwell Furnace site (Figure 18). The office was an important gateway building between the furnace complex and the surrounding community. Potential customers and future employees alike first encountered this limestone building before any others. Although it was built into a hillside just like the stone building near Yeager's Spring, the masonry of the office was much more refined than the other, more utilitarian building. In addition to using prism mortar joints, Pennybacker's masons showed the office's strength by utilizing prominent stones for the corners (Figure 19). That stability is apparent, even after a car hit



Figure 19: Redwell office, Prism Mortar Joints

the building, two hundred years after the masons did their work. The foundation is of rougher, more rudimentary stonework than the rest of the building, possibly

indicating an earlier building on the site or two periods of construction (Figure 20). Although the first story and the second story were accessible from the



Figure 20: Redwell office, Front Elevation

outside, there is evidence of scarring on the mortar, indicating that there was an enclosed interior stair that allowed continuous access to the first, second, and garret stories. The somewhat splayed window openings have ovolo moldings, as do the door openings; ovolo moldings indicate a level of decorative beyond the bare minimum. From the exterior, the building is domestic in appearance, similar to other stone buildings built in the region during the period.⁵⁷

⁵⁷ Just down the road in Hamburg was a stone building of a similar construction style, called the White House, built in the early eighteenth-century. The Pennybackers probably used the river landing there to transport their products down river. Virginia Historic Landmarks Commission

Domestic in appearance, the office might have served as the living space for the clerk and storekeeper of the furnace. The first floor probably had a



Figure 21: Redwell office, Wood lintel, First Floor Fireplace

utilitarian function, with a kitchen in the large south room and a storage area in the smaller north room. With a vent opening featuring vertical wooden bars, the Pennybackers probably stored food in the cool, dry space of the building's small north room. On the other side of the building, the clerk or most likely the clerk's wife cooked many meals in the large cooking fireplace. That utilitarian fireplace was slightly embellished with a beaded wooden lintel (Figure 21). While the clerk and others probably used the first floor as a dining space, most of the furnace business took place on the second story. The space was organized in an asymmetrical hall and parlor plan, divided by a beaded board partition.

This upper story room was also accessible from the top of the hillside that faced the main route to neighboring farms. As the main place of furnace transactions, Derick Pennybacker clearly articulated his status—as well as that of the furnace—through refined, albeit simple, interior architectural details. In the south room, the clerk probably kept a desk and stored papers. With the stone chimney projecting into the south room, the fireplace has a sophisticated Georgian mantle, featuring crown molding, a plain frieze, and a molded architrave below the frieze (Figure 22). The fireplace also had a plastered surround. Nearby the fireplace surround was shelving. Above this second floor

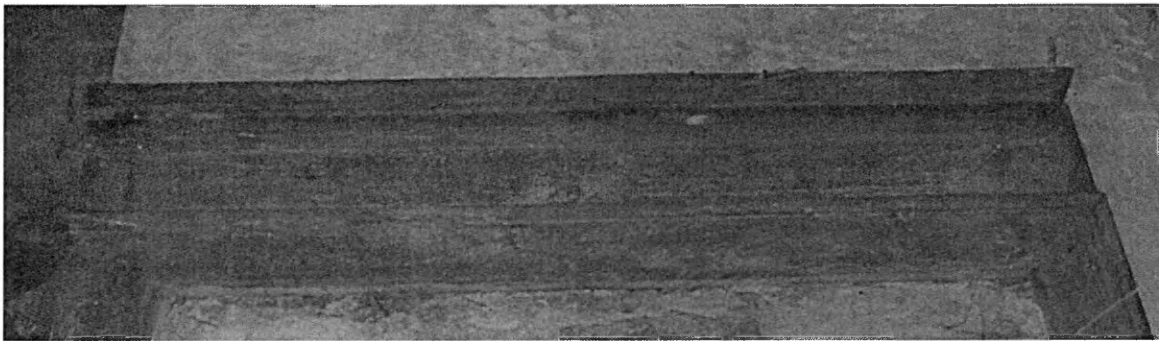


Figure 22: Redwell office, Georgian Mantle, Second Floor Fireplace

was a garret. The garret space has cruder plasterwork than the rest of the building, but does have one window in the north elevation. The roughness of the plaster in the garret indicates that workers lived there although the fact that this space was plastered at all is unusual.⁵⁸

Stonemasons also laid the stones for two other buildings—one for the ironmaster himself and another for one of his associates. Derick Pennybacker

⁵⁸ Ali Ross, Laura Purvis, and Sarah Thomas, "Field Notes on Redwell Furnace," September 18, 2009.

J. Daniel Pezzoni and James R. Graves, "Redwell-Isabella Furnace Historic District," *National Register of Historic Places Nomination Form*, (Lexington, Virginia), 2005, 6-7

chose wisely when he decided the best location for his own house. His two-story building dominated not only the furnace community itself, but was also visible to neighbors and wagon drivers alike (Figure 23). As the home for both the figural



Figure 23: Derick Pennybacker's stone house, Redwell Furnace

and literal head of the furnace community, Derick Pennybacker's house dominated the surrounding landscape. Although Derick's house, as well as the other domestic stone building, has changed a lot since the late eighteenth century, they still exude power and authority over the land. While subsequent owners have altered the interior of these buildings, several exterior elevations show stonework, which also features prism mortar joints, that is strikingly similar to that of the office and Yeager Spring house. These buildings are currently occupied, and they have lost much of the original character that the office and Yeager Spring house still retains. A probate inventory of Derick's household furnishings illustrate his level of success in Shenandoah County—he owned “2 beds and bedsteads, set of drawers, table, looking glass, writing desk, table 2 pair fire dogs, kitchen ware.”⁵⁹ Derick, his wife, or one of his daughters might

⁵⁹ “Redwell Furnace,” *MESDA Research Files*, for Derik Pennybacker's Will dated 1802, Shenandoah County, Virginia Will Book E, 1796-1802, 535.

have gazed into the looking glass to ensure his or her new set of clothes fit properly, placing other pieces of clothing, perhaps a different season, in the set of drawers. Derick used consumer goods to articulate his status in Shenandoah County society.

In addition to these four stone buildings, workers constructed the Redwell furnace stack out of limestone as well. Ironworkers built the cold blast furnace into the hillside, which allowed people to load the ore, charcoal, and limestone from the top. The furnace was probably twenty-five to thirty-five feet high and constructed of limestone (Figure 24). Surrounding the furnace were sheds, a



Figure 24: Van Buren Furnace Stack, Shenandoah County, Virginia

bridge, and two structures for the storage of ore and charcoal. To the east of this hill of industry, Pennybacker created a millpond by damming Yeager's Spring in order to divert the multi-million gallon flow to Hawksbill Creek. This water allowed the furnace, gristmill, and sawmill to operate, providing motive power.⁶⁰ Sometime during his time at Redwell, Derick also supervised the construction of a gristmill and sawmill; workers constructed these buildings along the millrace between the spring and furnace. There were also several other buildings associated with the gristmill and the sawmill for the storage of grain and lumber.

Constructed of wood, other Redwell buildings were of a more impermanent nature. Carpenters built "six houses for workmen, 16-20 feet square, log with hard floors and sealed with clapboard," as well as a larger dormitory, a smoke house, a dairy, a smith's shop, and a kitchen during Derick's occupation of Redwell in the late eighteenth century.⁶¹ With nineteen horses known to be on the site by 1790, the two stable buildings were full.⁶² While masons built one stable out of stone, carpenters constructed another of log, "substantially floored and covered with ½ planks, doors hung on large iron hinges."⁶³ From hinges to a warming shelf and lintels, iron predominated across Redwell's landscape.

Some of the most important iron products at Redwell were stoves. Moulders poured molten iron into sand-filled wooden moulds; once dried, five or six of these stove plates made up a single stove. Stoves were a fundamental

⁶⁰ Comstock, "The Redwell Ironworks," 47.

⁶¹ Augusta County, Virginia Chancery Court Papers, Amendment to Suit of Patton vs. Pennybacker, 1800-1805, as cited in Comstock, "The Redwell Ironworks," 77.

⁶² Census Records, 1790.

⁶³ Pezzoni, 12.

part of nineteenth-century American life. In her 1983 study of household technology, historian Ruth Schwartz wrote that cast-iron cook stoves “could well serve as the single most important domestic symbol of the nineteenth century,” replacing the ubiquitous open hearth of the seventeenth and eighteenth centuries.⁶⁴ In the beginning of the eighteenth century, immigrants traveling from Northern European countries, including Germany, brought stove plate designs, as well as their accompanying production process and technology, to their new homes in America. In Pennsylvania, ironworkers produced freestanding stoves comprised of six plates by the 1700s, later molding more efficient nine and ten plate stoves by the end of the century.⁶⁵ Although these stoves were frequently used in the Shenandoah Valley, cast iron stoves became prevalent throughout nineteenth-century America, especially after technological improvements allowed the iron industry to expand in the 1810s.⁶⁶

At Redwell, moulders poured molten iron into sand-filled wooden flasks to make many cast iron products. Fire backs and stove plates were the most important, survive in large numbers, and can tell historians a lot about Shenandoah Valley culture as it developed in the late eighteenth and early nineteenth centuries. Workers cast stove plates, also known as side plates, that

⁶⁴ Ruth Schwartz Cowan, *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave*, (New York: Basic Books, 1983), 54.

⁶⁵ Priscilla J. Brewer, ““We Have Got a Very Good Cooking Stove:” Advertising, Design, and Consumer Response to the Cookstove, 1815-1880,” *Winterthur Portfolio* 25, no. 1 (Spring, 1990), 36.

⁶⁶ In the Shenandoah Valley, stoves were frequently found in *flurkuchen* plan houses of German settlers. Edward A. Chappell, “Acculturation in the Shenandoah Valley: Rhenish Houses of the Massanutten Settlement,” *Common Places: Readings in American Vernacular Architecture*, eds. Dell Upton and John M. Vlach, (Athens, Georgia: University of Georgia Press), 1986, 27-57. Brewer, 37.

when fastened together would become stoves to heat homes. With flask casting, moulders could reuse a single flask many times, thus producing many cast stove plates of the same pattern. The number of plates used to create a single stove varied, but stoves were usually made of six or ten plates each. Pre-carved molds had intricate designs and provided a seemingly utilitarian object with ornamentation and cultural expression. Plates vary in their dimensions, but were typically twenty to twenty five inches high by twenty-one to thirty inches wide and several inches thick. The dimensions of stove plates became more uniform as technology and worker's efficiency improved in the nineteenth century.⁶⁷

Moulders did precision work when they cast each of the five or six plates required for a complete stove. Side plates corresponded with other stove plates to fit together in a perfect rectangular box. Ironworkers attached side plates together with only one bolt and one wing nut. Redwell's stove plates featured rims, making it much easier for ironworkers to attach the plates together than during the early eighteenth century.⁶⁸

One of the earliest side plates attributed to Redwell Furnace presents a glimpse into the hunting practices of its makers (Figure 25). At over twenty-four inches high and twenty-seven and a half inches wide, this heavy cast iron piece is one plate of a six-plate stove. This early plate is several inches thick, which is greater than later plates. The decorative scene is Germanic in origin. There is a

⁶⁷ Donald Allen Crownover, *Manufacturing and Marketing of Iron Stoves at Hopewell Furnace, 1835- 1844*, 33. "Redwell Furnace Account Book," from *Museum of Early Southern Decorative Arts Research Files*, accessed July 15, 2009, 48. Bezis-Selfa, *Forging America*, 36.

⁶⁸ Peter Sinclair, "From the Editor," *Hudson Valley Vernacular Architecture Newsletter*, (West Hurley, New York: May 2004), <http://www.hvva.org/hvvanews6-5part2.htm>, accessed January 8, 2012, 2.

hunter with a rifle on the dark, cast-iron surface. The hunter carries a rifle and is chasing two deer while his two loyal dogs follow behind them. One deer has a large set of antlers while the other does not. The animals, as well as the hunter, have rockers instead of feet to illustrate that the group is running through the



Figure 25: Hunter Stove Plate, Redwell Furnace

forest. Whether the hunter is ultimately successful in his pursuit of the deer is not known from the cast plate. This scene is on the lower half of the stove plate with the inscription across the top. Germanic elements include four pinwheels.⁶⁹ The plate's German inscription translates, "Here is a hunter on the hunt."

This cast iron piece, from a six-plate stove, is identical to another surviving stove plate, inscribed "D. PENNEBACKER HIS REDWIL FURNACE SEPTE 21,

⁶⁹ Comstock, "The Redwell Ironworks," 62.

1787.”⁷⁰ Jacob Kiplinger carved the pattern for that particular mold.⁷¹ The scene might represent a hunting expedition in the Shenandoah Valley, Pennsylvania, or possibly even Germany. Shenandoah Valley historian H.E. Comstock points out that the four pinwheels on this plate suggest the Germanic nature of the scene.⁷² This plate represents the products of one of the furnace’s first blasts. The use of German language on the stove plate points to the prevalence of German culture in late 1780s Shenandoah County. Germanic in origin, this stove plate was made for Pennsylvania German settlers of the valley.

Other stove plates include images from fables, the Bible, and the natural world. One particularly fascinating stove plate is a scene of three rabbits hopping around a meadow filled with flowers, trees, and tall grasses (Figure 26). The tall grass seems to sway back and forth as the rabbits pass through it, evoking a scene of natural bounty and the beauty of one’s surrounding environment. The rabbits themselves are circularly arranged and share ears in a captivating visual illusion. Each rabbit shares a single ear with one other, so only three ears are necessary to complete the image. Four pinwheels of Germanic origin occupy the corners of this stove plate. Cast sometime between the years 1790 to 1800, this stove plate is 21 by 23 inches.⁷³ Although this plate does not have German

⁷⁰ The identical stove plate can be found at the Mercer Museum in Pennsylvania.

⁷¹ Henry Chapman Mercer, *The Bible in Iron: Pictured Stoves and Stoveplates of the Pennsylvania Germans; Notes on Colonial Fire backs in the United States, the Ten-plate Stove, Franklin’s Fireplace and the Tile Stoves of the Moravians in Pennsylvania and North Carolina, Together with a List of Colonial Furnaces in the United States and Canada*, (Doylestown, Pennsylvania: Bucks County Historical Society), 1961, Figures 323, 325.

⁷² Comstock, “The Redwell Ironworks,” 62.

⁷³ “Redwell Furnace,” *MESDA Research Files*, (July 10, 2009).

inscription as other late eighteenth-plates did, the pinwheels highlight the German nature of this design.

In this 1797 pattern by Richard Patton, a tortoise hangs from a rod held by two doves, inscribed as “Queen of the Tortoises.” Richard Patton was inspired to carve this scene into the wooden mold by one of Aesop’s Fables about the tortoise and the birds, known as the fable of the talkative tortoise. In the story, the birds carried their friend the tortoise to a new home, but unfortunately, the

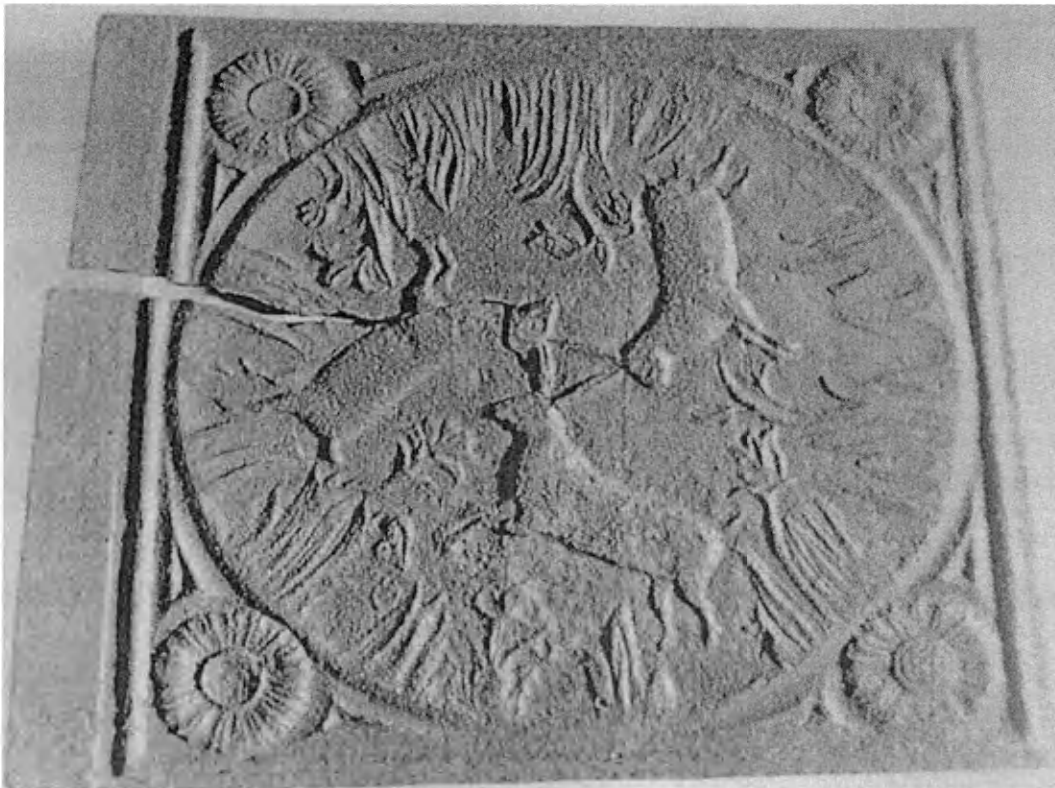


Figure 26: Three Rabbits Stove Plate, Redwell Furnace

tortoise opened his mouth, fell to the ground, and died. In the stove plate, the birds’ long wings show that they are flying through the air, and the graceful birds dominate the scene (Figure 27). Beautiful scrollwork with inscription in English

frames the scene. The upper banner reads "17 R PATTON 97," while the lower banner exclaims "THE QUEEN OF THE TORTISES."⁷⁴ Stove plate



Figure 27: Queen of the Tortises Stove Plate, Redwell Furnace

measurements varied a great deal because of the custom made wooden molds and quality of the iron itself. At 19 ¼ inches by 26 inches, this particular plate is unusual in its dimensions.⁷⁵

Cast ten years later, several stove plates from a single mold survive today in the Hamburg neighborhood, about three miles south of Redwell Furnace. These stove plates are currently in Mauck's Meeting House and Calendine.⁷⁶ Believed to be carved by Andrew Bear, this pattern is strikingly similar to an 1805 Redwell stove plate that Bear also carved; the later stove plate is more austere and has

⁷⁴ "Redwell Furnace," *MESDA Research Files*, (July 10, 2009).

⁷⁵ "Redwell Furnace," *MESDA Research Files*, (July 10, 2009).

⁷⁶ Laura Purvis, Alison Ross, and Sarah Thomas, "Field Notes on Redwell Furnace Site Visit," September 18, 2009.

less flourish than the earlier design. The main decorative elements of these plates are the neoclassical urns and scrollwork. The scrollwork is architectural in its design; a frame of twisting vines surrounds the scene.⁷⁷

Andrew Bear's design for the 1805 stove plate is highly decorated and beautifully executed (Figure 28). This stove plate is emblematic of the shift in Redwell stove plate designs from being inspired by Germanic scenes, fables,



Figure 28: Mayberry and Pennybacker Stove Plate, Redwell Furnace

and the natural world to designs that are neoclassical in origin. A neoclassical urn is centered on the stove plate, surrounded by the letters A B and the date 1805, indicating that Andrew Bear carved the pattern. The only other inscription is on the upper banner and reads “Mayberry and Pennybacker,” Redwell’s new

⁷⁷ “Redwell Furnace,” *MESDA Research Files*, (July 10, 2009).

ironmasters.⁷⁸ Although this stove plate appears to be of a higher quality than the earlier pieces, it is important to note that it portrays no message or morality tale. The intricate scrollwork and flowing lines are beautiful, but they give no particular indication of the culture of Redwell's iron making community. This stove plate could have been produced at most ironworks throughout the Shenandoah Valley, Pennsylvania, and New Jersey.

The changing nature of Redwell's stove plate designs not only illustrates the development of ironworking culture in the nineteenth-century backcountry of Virginia, but it is also illustrative of national trends in the development of cast-iron stoves in America. While late eighteenth century stove plates were idiosyncratic with German inscriptions and three-dimensional figures that illustrate a story or particular scene, early nineteenth-century stove plates had designs with fluted columns, classical urns, and Adamesque ovals.⁷⁹ Derick Pennybacker relied on traditional Germanic stove scenes for his first blasts, such as the Hunter Stove Plate, cast in 1787. In the late 1790s and early 1800s, however, the designs of Redwell stove plates became less inspired by Germanic imagery and more Anglo-American with neoclassical or nationalistic designs. Pennybacker and subsequent owners of Redwell updated the pattern as popular sentiment called for republican images of urns, scrollwork, and other rococo designs.⁸⁰ The transition of the material culture of Redwell Furnace from Germanic to Anglo in the late eighteenth century is apparent. Whether the Pennybackers altered the

⁷⁸ "Redwell Furnace," *MESDA Research Files*, (July 10, 2009).

⁷⁹ Brewer, 37.

⁸⁰ Comstock, "The Redwell Ironworks," 64-65.

stove plate design because of popular sentiment of Shenandoah County residents or through their own volition, these several surviving plates show an evolution toward republican designs. Either way, however, the changing patterns of Pennybacker's stove plates show that the Revolutionary War did have some impact on Shenandoah Valley material culture.

Redwell was the perfect place for producing stove plates in that there was easy access to iron ore, plenty of timber for making charcoal, and a steady and reliable water supply. The only real problem was its location on the eastern side of Massanutten Mountain. Two branches of the Shenandoah River and a mountain separated Redwell from the Great Wagon Road. Of course, the Pennybackers were able to use the South branch of the Shenandoah River to float their iron down to Harper's Ferry and the Potomac River.⁸¹ It was certainly more difficult, however, to trade with the great majority of Valley residents who lived on the western side of Massanutten Mountain in towns such as Winchester, Woodstock, Mt. Jackson, and New Market.

That difficulty might have been the reason the Pennybackers purchased land north of New Market along the Great Wagon Road. Derick Pennybacker and his partner Benjamin Fawcett bought this land, which already boasted several forge-related buildings and a mill, in 1786. The property also contained an old stone dwelling house; the previous owner, Mounce Byrd, may have

⁸¹ The Pennybacker took their iron goods to the White House landing on the Shenandoah River, a few miles South of Redwell. Zula Gochenour, "The Pennybacker House," *The Virginia Historical Inventory*, (Works Progress Administration, June 1, 1937), 4.

constructed that house in the 1760s.⁸² There was also a springhouse on the property.⁸³ The Pennybackers named the new venture Pine Forge, possibly after a forge of the same name in Pennsylvania.⁸⁴ Although Pennybacker's furnace a few miles northwest of Luray was successful, his ironworkers could only perform certain ironworking tasks at a blacksmith's shop and a furnace stack. With his newly made Shenandoah Valley connections and his large family, Pennybacker knew expanding was the next step. Purchasing an already-built forge building located near the Great Wagon Road was the fastest way to get into the forge business.

While ironworkers made iron bars, pig iron, and other cast iron objects, workers were unable to refine the iron further. With the acquisition of Pine Forge, Pennybacker's workers could now refine his iron into anchories, wagon wheels, and other products to sell. They could also refine the iron of other ironmasters and sell that iron to travelers on the nearby wagon road. Pennybacker also might have considered that Redwell was not enough space for his expanding family. Six years later, Derick Pennybacker and Benjamin Fawcett sold the Pine Forge property to Benjamin Pennybacker, George Mayberry, and Isaac Samuels.⁸⁵ Although George Mayberry and Isaac Samuels worked at Pine Forge, Benjamin

⁸² Amelia Cleland Gilreath. *Deed books E, F, G, H, 1784-1792, Abstracted*. (Nokesville, Virginia: A.C. Gilreath, 1988), 40.

⁸³ *Benjamin Pennybacker Daybook, 1818-1821*, Manuscripts and Rare Books Department, Swem Library, College of William and Mary, (Saturday, August 15, 1818).

⁸⁴ Pine Forge was located in Berks County, Pennsylvania and was in operation in the 1740s. James M. Swank, *History of the Manufacture of Iron in All Ages, And Particular in the United States from Colonial Times to 1891*, (Philadelphia, Pennsylvania: The American Iron and Steel Association, 1892), 167.

⁸⁵ Amelia Cleland Gilreath, *Deed books E, F, G, H, 1784-1792, Abstracted*. (Nokesville, Virginia: A.C. Gilreath), 1988, 40, 156.

Pennybacker was the main ironmaster and will thus be the focus of the second section of this thesis.

Section 2- Benjamin Pennybacker at Pine Forge, 1790s-1840

Benjamin Pennybacker was born on September 29, 1760, in Pennsylvania.⁸⁶ Benjamin accompanied Derick Pennybacker as he traveled down the Great Wagon Road in the early 1780s. Benjamin's future wife, Sarah Samuels, and his cousin and business partner, Isaac Samuels, also migrated to Shenandoah County from Pennsylvania during this period. At Redwell Furnace, Benjamin learned necessary and practical ironworking skills from his father as they began building the industrial landscape of Redwell in the early to mid-1780s. Derick owned two enslaved black men by 1790, but his workforce during this construction period was composed entirely of white men, including indentured servants who gave Pennybacker some trouble.⁸⁷ "Two servant men, about 21 years of age...slender made, one of a fair complexion, the other marked with smallpox, of a swarthy complexion," ran away from Redwell in 1790, wearing "trowsers and blue sailor's jackets, felt hats half worn, and shoes."⁸⁸ Benjamin may have realized from his father's past difficulties that indentured servants caused more trouble than benefit, because he never used indentured servants himself. Even with these issues, however, the Pennybackers and their workmen did construct the buildings necessary for an ironworks, including four buildings

⁸⁶ Wayland, *A History of Shenandoah County, Virginia*, 553.

⁸⁷ Netti Schreiner-Yantis and Florene Speakman Love, *The Personal Property Tax Lists for the Year 1787 for Shenandoah County, Virginia*, (Springfield, Virginia: Genealogical Books in Print), 1987, 612-613.

⁸⁸ *The Virginia Herald and Fredericksburg Advertiser*, (Fredericksburg, Virginia), July 8, 1790, 4-4.

that are still extant: two two-story limestone houses, an office, and a spring house that may have served as a dining and sleeping area for workers.⁸⁹

While his father supervised operations at Redwell in the late 1780s, Benjamin himself probably spent much of his time on the other side of the Massanutten Mountain at Pine Forge, overseeing operations there for his father. The ironworking business at Redwell Furnace and Pine Forge flourished during the early years at Redwell---so much so that Benjamin Pennybacker decided to marry. He took as his bride his first cousin, Sarah Margaret Samuels, on May 23, 1787.⁹⁰ Although it is difficult to tell where the couple made their home, they were probably living at Pine Forge during this period.⁹¹ Benjamin and his new wife were fortunate that the Pine Forge property had several buildings, and they did not have to construct new buildings as Derick did at Redwell. According to the tax lists from 1789, Benjamin and Sarah lived with two of his younger brothers, Abraham and John, and five taxable men; these men were probably workers at Pine Forge. The group had seven horses.⁹² That old stone house was crowded, especially considering that Benjamin and Sarah's first child was

⁸⁹ J. Daniel Pezzoni and James R. Graves, "Redwell-Isabella Furnace Historic District," *National Register of Historic Places Nomination Form*, (Lexington, Virginia), 2005, 16.

⁹⁰ Dodd, Jordan R., et al.. *Early American Marriages: Virginia to 1850*. Bountiful, UT, USA: Precision Indexing Publishers. Carry Esther Spencer, Bernard Samuels, and Walter Berry Samuels, *A Civil War Marriage in Virginia*, (Boyce, Virginia: Carr Publishing Company, 1956), 63-66.. Wayland, *A History of Shenandoah County, Virginia*. 553. United States Census Bureau, *1860 U.S. Census, Population Schedule*. NARA microfilm publication M653, 1,438 rolls.

(Washington, D.C.: National Archives and Records. According to Wayland, George M. was born on December 31, 1787. The 1860 census also indicates that George M. was born "around 1787."

⁹¹ I think Benjamin was at Redwell in the early 1780s during the construction period and that he moved to the old stone house at Pine Forge after Derik purchased the property in 1786.

⁹² "1790 Virginia Tax List Personal B, Shenandoah County."

<http://www.binnsgenealogy.com/VirginiaTaxListCensuses/Shenandoah/1789PersonalB/20.jpg>, (accessed December 2, 2011), 20.

born in December 1787 and a second followed in 1789.⁹³ Fortunately for them, the five taxable ironworkers probably lived in “sundry Dwelling houses” that were also on the property.⁹⁴

In the 1790s, Benjamin Pennybacker formed a partnership with two of his brothers-in-law, Isaac Samuels and George Mayberry.⁹⁵ The three formed Pennybacker & Company, and they soon took management of Pine Forge. In 1792, Derick Pennybacker and his associate Benjamin Fawcett sold their property, “containing about three acres of Land... including a Grist Mill Saw Mill and the greatest part of the forge commonly called the pine forge together with all things thereunto belonging and all houses and buildings” to “ironmasters” Benjamin Pennybacker, Isaac Samuels, and George Mayberry for one hundred pounds.⁹⁶ On the same day that the three purchased the Pine Forge property, they also expanded their holdings, buying three hundred more adjacent acres of land along Smith Creek for eighty-five pounds. This land was right beside the Pine Forge, and the deed references “a lane just by Benjamin Pennybacker’s house” and “sundry Dwelling houses and buildings.”⁹⁷

Because land and the timber it held were always in great demand in ironworking, the three secured even more property along Smith’s Creek—more than two hundred acres—for twenty pounds on the same day. These land

⁹³ Wayland, *A History of Shenandoah County*, 553. For the record of Benjamin’s children, Wayland cites Benjamin Pennybacker’s family Bible, which was in the possession of his great-granddaughter Kate Pennybacker in the early 1900s.

⁹⁴ Gilreath, *Deed Books E, F, G, H, 1784-1792, Abstracted*. (Nokesville, Virginia: A.C. Gilreath, 1988), 156.

⁹⁵ Charles S. Keyser, *The Keyser Family: Descendants of Dirk Keyser of Amsterdam*, (Philadelphia, 1889), 149. George Mayberry married Rebecca Pennybacker, Benjamin’s sister.

⁹⁶ Gilreath, *Deed Books E, F, G, H*, 156.

⁹⁷ *Ibid.*

acquisitions show that Benjamin Pennybacker and his brothers-in-law were part of a thriving Pennsylvania-German community, as two of these deeds were written in German. With the signatures of local Shenandoah Valley leaders, such as Mounce Byrd, Samuel Coffman, and Derick Pennybacker, the new owners of Pine Forge secured the approval of their elders as they began ironworking—this time without Derick’s immediate supervision.⁹⁸ As he became an ironworker in his own right and expanded his holdings across the landscape, Benjamin also bought into another part of Shenandoah Valley life by purchasing five enslaved African Americans in that same decade. By 1799, Benjamin and his wife lived with four other white men over the age of sixteen, owned five slaves, and had ten horses.⁹⁹

Benjamin and Sarah’s family continued to grow, with Sarah having a child nearly once every two years from 1787 through 1812. Sarah birthed thirteen children in all. Unfortunately, two of those children, John and Mary, died on the same day of their respective births in 1798 and 1800, and another child lived only two years.¹⁰⁰ The family experienced another tragedy when their patriarch, Derick Pennybacker, fell off his horse and died on February 15, 1802. “The remains were decently interred on his own premises,” notes the *Winchester Gazette*, “attended by a very numerous concourse of relatives and friends.”¹⁰¹ Benjamin, Sarah, and their children, as well as his mother Hannah, brothers,

⁹⁸ *Ibid.*

⁹⁹ Binns Genealogy, “1800 Tax Personal Tax List, Shenandoah County, Virginia,” <http://www.binnsgenealogy.com/VirginiaTaxListCensuses/Shenandoah/1799PersonalB/31.jpg>, (accessed December 2, 2011), 31.

¹⁰⁰ Wayland, *A History of Shenandoah County*, 553.

¹⁰¹ *Winchester Gazette*, Winchester, Virginia, March 3, 1802.

sisters, and many cousins who lived in Shenandoah County, were certainly among those who paid their last respects to the Pennybacker patriarch on the grounds of Redwell Furnace. Derick was buried in land nearby the hustle and bustle of the furnace complex that he began nearly twenty years before.

Despite this tremendous loss, Benjamin Pennybacker's family and business life flourished in the 1810s. Six young children, ranging in age from one to fifteen, filled his non-working hours with delight and headaches alike. Thankfully, there were older children in their teens and twenties to help out. Benjamin also owned nineteen slaves by 1810.¹⁰² George Mayberry, Benjamin's brother-in-law and part owner of Pine Forge, sold Benjamin his one-third interest in the property for \$2,500 dollars in April 1810.¹⁰³ George and Benjamin's sister Rebecca decided to move their family southward near the Ohio River in Wood County, Virginia (present-day West Virginia).¹⁰⁴ Isaac Samuels, Benjamin's brother-in-law and the other one-third owner of Pine Forge, was becoming less involved in the ironworking business as he planned the construction of his family's home south of Edinburg. Samuels built Green Hope, a two-story brick house, complete with an outside slave quarter.¹⁰⁵ By 1816, Isaac and his wife

¹⁰² United States Census Bureau, *Third Census of the United States, 1810*. NARA microfilm publication M252, 71 rolls. (Bureau of the Census, Record Group 29. National Archives, Washington, D.C.)

¹⁰³ Shenandoah County Court Records. *Deed Book T*, April 1810, 398.

¹⁰⁴ Philip W. Sturm, "Kinship Migration to Northwestern Virginia, 1785-1815: The Myth of the Southern Frontiersman," (PhD dissertation, West Virginia University, 2004), 60-63.

¹⁰⁵ Zula Gouchenor, "Green Hope," *Works Progress Administration for the Virginia Historical Inventory*, (Shenandoah County, Virginia, January 19, 1938), 1-5.

Elizabeth sold their one-third share of Pine Forge to Benjamin, making him the sole owner of Pine Forge.¹⁰⁶

Through his partnership with Benjamin Pennybacker and his marriage to Rebecca Pennybacker, Isaac Samuels was an important player in the family's success in Shenandoah County. The Pennybackers were tied by blood and through marriage to Isaac Samuels's family. Isaac's own children, in fact, would later honor the family as they served positions of influence at the nation's capital. The house that Isaac Samuels planned and built, called Green Hope, provides insight into how one branch of the family made their way in Shenandoah County (Figure 29). The house itself overlooks the Shenandoah River. Its stately brick exterior would have made an impression on people traveling in bateaux down the river. The house's symmetrical façade provided no indication of the Pennsylvania origins of its inhabitants—its five windows and main door lined up perfectly, presenting a neat and orderly greeting to visitors and family alike.

¹⁰⁶ Gilreath, *Deed Books X and Y, 1815-1817, Abstracted*. (Westminster, Maryland: Willow Bend Books, 2002), 92.



Figure 29: Green Hope, the house of Isaac Samuels

This façade was very much in the Anglo tradition and was similar to many other brick houses constructed in the Shenandoah Valley during this period. This was a grand entrance—“a wide hall divides the house and adds spaciousness,” comments a surveyor in 1938.¹⁰⁷ Upon entering the house from the two-story front porch that featured “fancy brackets,” the frescoed hall was the first room that visitors encountered.¹⁰⁸ While much of the house’s decoration was plain and made of wood, the door frames were fluted and the stair case had “unusually wide steps, square balusters, and [a] round rail with large octagon newels.”¹⁰⁹ Light streamed into the house’s twenty-two large windows. Not only did Samuels build a well-lit house, but he also planned for a warm house with four fireplaces in

¹⁰⁷ Gouchenour, “Green Hope,” 2-4.

¹⁰⁸ *Ibid.*

¹⁰⁹ *Ibid.*

the living spaces and one in the kitchen. Isaac and Rebecca Samuels joined their Shenandoah County brethren as they chose to build and live in a house that fit into the valley's landscape. Just as his father-in-law Derick Pennybacker did before him with the changing design of Redwell's stove plates, Isaac Samuels also adjusted to life in the county-- not only did he own African Americans, but he also purposefully built a slave quarter.

The most striking element of Green Hope's landscape, however, was neither its square shape nor its symmetrical façade—it was the slave quarters in the backyard (Figure 30). Like the main house at Green Hope, this log building is similar to many Virginia slave quarters of the period. Rectangular in shape, the most prominent feature of the building is a chimney, which divides the quarters in half. To keep the weather from getting in, the enslaved African Americans who lived there had to frequently repair the building's chinking. The enslaved people

entered through one of two rough, batten doors. Each pine door led to separate

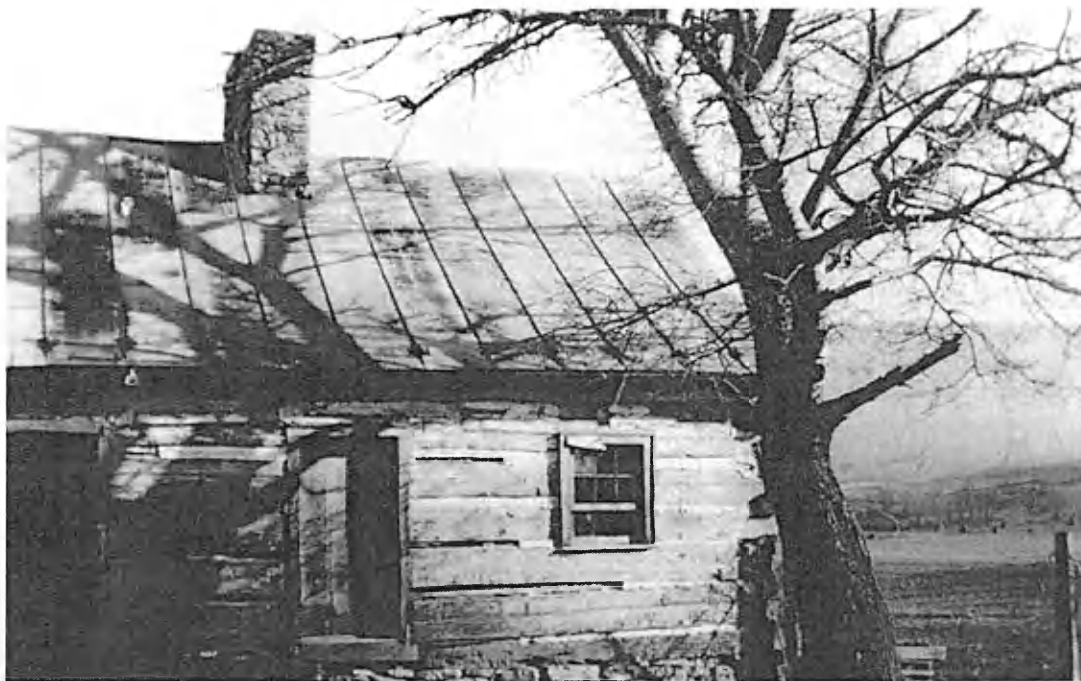


Figure 30: Slave Quarters at Green Hope

living quarters. The building had four interior rooms; slaves accessed the upper two rooms through interior staircases—these were most likely ladders. These rooms were small, had low ceilings, plain cornices, and no mantles around the one large fireplace and hearth. The floorboards were “rough wide boards,” in great contrast to the boards of the main house.¹¹⁰ The slave quarters at Green Hope demonstrate Isaac Samuels’s commitment to living in society that increasingly came to rely on slavery.

Isaac Samuels still did a lot of business at Pine Forge, such as purchasing iron objects for his family or the enslaved people that he owned. The iron strap hinges and latches, for example, used to secure and lock the Green Hope slave

¹¹⁰ Zula Gochenour, “Slave Quarters at “Green Hope,”” *Works Progress Administration for the Virginia Historical Inventory*, (Shenandoah County, Virginia, January 19, 1938), 2.

quarter might have been purchased at Pine Forge. In the 1810s, Pine Forge was not just a forge site—it was also the place where Benjamin Pennybacker firmly laid down his own roots. At age fifty-one in 1811, Benjamin began constructing a house of his own at Pine Forge. While we can assume that he and his family lived at the old stone house at Pine Forge, this is the documentation that exists showing Benjamin himself constructing a house.¹¹¹ The house itself is no longer extant—but photographic evidence and a thorough survey by the Work Progress Administration’s “Virginia Historical Inventory” project do provide a great deal of valuable information (Figure 31).¹¹² In fact, the surveyor took a photograph of Pine Forge in 1937, which shows several buildings, including Benjamin’s home, the old stone house, and the surrounding landscape. The photograph reveals Benjamin Pennybacker’s intentions in constructing this house and the surrounding landscape. The exterior façade of a building was important—it was Pennybacker’s means of presenting himself to his Shenandoah County neighbors and Great Wagon Road travelers alike. Pennybacker chose a symmetrical façade, very much in the Anglo-American tradition. Two windows over two windows frame each side of the front door. Above the door, another window completes the symmetry. The large gable roof dominates the otherwise washed façade. Although the floor plan is difficult to determine from the house’s

¹¹¹ Even without documentation, I am certain that Derik and Benjamin constructed and lived at the two stone houses at Redwell Furnace. Based on architectural evidence, the structures were built in the last two decades of the eighteenth century.

¹¹² Harry Long, “Pine Forge,” May 2002, unpublished manuscript in possession of author, (May 2002), 6. The house burned down in the 1940s and was subsequently demolished later.

exterior, two end chimneys, one on each side of the house, provide some clue that the interior did not follow a typical German house plan.¹¹³

The house was a typical early nineteenth-century Shenandoah Valley dwelling. The weather-boarded log exterior was whitewashed using lime from the Pine Forge quarry. Locals referred to the house as “The White House,” after its whitewashed exterior; another older valley house, the place where the



Figure 31: Benjamin Pennybacker's house

Pennybacker iron began its float down the Shenandoah, bore the same name.¹¹⁴

A heavy, six-panel batten front door with an elaborate four-pane transom greeted Benjamin's guests. Nine-foot ceilings on the first floor provided his large family

¹¹³ For more information on German plan houses, see Edward A. Chappell, “Acculturation in the Shenandoah Valley: Rhenish Houses of the Massanutten Settlement,” in *Common Places: Readings in American Vernacular Architecture*, edited by Dell Upton and John M. Vlach. Athens, Georgia: University of Georgia Press. 1986. 27-57.

¹¹⁴ Harry Long, “Pine Forge,” 6.

and their guests with room to breathe. Benjamin articulated his occupation through his home's hardware, using "large iron bar hinges," and "iron handle latches."¹¹⁵ The first two floors of the house had plenty of light; in fact, there were nine windows on the front façade with twenty-nine windows total.¹¹⁶ The interior walls were plastered, and wainscoting throughout the house added a level of refinement to an otherwise plain space. The Pennybackers walked on wide, irregular pine boards as they went about their daily business. Eight large fireplaces heated the family during the cold Shenandoah Valley winters. Several of the fireplace mantels were eight feet wide and quite fancy, "beautifully fluted and reeded" in "Greek Revival style."¹¹⁷ Although the interior doorframes were plain, sturdy six-panel batten doors were strong enough to sustain years of opening and shutting by teenaged Pennybackers. This house's twelve rooms were probably always crowded, though some of Benjamin's children had moved out by this time.

His so-called White House was Benjamin's only known attempt at building his own house from scratch. Although he lived in old stone houses, however, Benjamin purchased material goods that showed he understood what was fashionable and up to date—just like his father's looking glass. Derick and Benjamin took part in a larger trend of the early Republic. During the early nineteenth century, many lower- and middle-class Americans attempted to

¹¹⁵ Zula Gochenour, "The Pennybacker Home," *Works Progress Administration of Virginia Historical Inventory*, (Maurertown, Virginia, June 1, 1937), 4.

¹¹⁶ Gochenour, "The Pennybacker Home," 4. It is possible that some of these windows were later additions. From the survey, we know that there were two types of windows: windows measuring 8 by 10 with 12 panes and those measuring 12 by 22 with 4 panes each.

¹¹⁷ Gochenour, "The Pennybacker Home," 4.

emulate their upper-class counterparts by buying and using certain luxury goods, building new houses to articulate their pursuit of refinement, or adopting leisure practices, such as tea drinking.¹¹⁸ As he planned and constructed his new family home in 1811, Benjamin clearly thought about how his house would fit into the surrounding landscape. Benjamin desired to present as refined a façade as he could afford working as an ironmaster with a growing family. The house itself was not the only indicator of this—Benjamin himself had purchased some items of refinement several years ago, and he probably filled the house with these and similar objects. For example, he bought a “Shugar canister” and some “Hison Tea”; he also got some cinnamon and nutmeg to spice his food.¹¹⁹ He bought a “silk twist & buttins” as well as “2/2 yd. Cloth at 14 pence,” and “1 pair knitting needles.”¹²⁰ Even though he had moved away from Pennsylvania some years before, Benjamin still subscribed to Philadelphia newspapers, including the *Philadelphia Gazette*.¹²¹ He also “paid for George and Nancy to see show.”¹²² Like other rising lower and middle class Americans of the period, Benjamin articulated his material aspirations by acquiring luxury objects, subscribing to metropole newspapers, and buying tickets for his children to attend a performance.

¹¹⁸ Richard Lyman Bushman, *The Refinement of America: Persons, Houses, Cities*. (New York, New York: Vintage Books, 1992), 403-410.

¹¹⁹ *Pine Forge Ledger*, 1799-1802, Accession #9888, Albert and Shirley Small Special Collections Library, University of Virginia, Charlottesville, Virginia, transcription by Sarah Thomas, January 2010, 37.

¹²⁰ *Pine Forge Ledger*, 35.

¹²¹ *Pine Forge Ledger*, 15, 36.

¹²² *Pine Forge Ledger*, 83.

Benjamin improved his family's status in more ways than simply buying into the world of nineteenth-century consumer goods. He also worked as a community leader, making a visible commitment to his Shenandoah County neighbors. Along with his brother-in-laws and partners, Isaac Samuels and George Mayberry, he served as a county justice and participated in many courtroom proceedings in the 1810s.¹²³ Benjamin also hosted a large family reunion at Pine Forge that was organized by his mother, Hannah Pennybacker, around 1808. According to family tradition, there were so many Pennybackers that "a partition had to be taken down in order to gather them all around one table."¹²⁴ Family was important to Benjamin, even if it was difficult to fit them into his dining room.

One particular daybook entry, made in the last year of his life, brings up some important unanswered questions. On January 20, 1820, sixty-year old Benjamin Pennybacker notes in his daybook, "This is to certify that I do agree to Give George Pennybacker the sum of three hundred dollars pr. year to commence from the first of this instant with his washing, mending, & bording," signing the entry "B. Pennybacker."¹²⁵ Why did Benjamin pay George, his oldest son, for doing everyday cores and boarding? Did Benjamin actually move into his son's house for the last year of his life? Was he paying for one of his children to move into George's home? Was Benjamin or his wife Sarah in poor health?

¹²³ Sturm, 63.

¹²⁴ Spencer, 64.

¹²⁵ *Benjamin Pennybacker Daybook*, Wednesday January 12, 1820.

What about their six-year-old son Samuel? While it is difficult to make conclusions from this agreement, it does lead to interesting research paths.

There is no indication of a major change in Benjamin's living situation from other documentary sources. In the census taken in August of 1820, for example, Benjamin is listed as head of a large household, including his wife, three white males aged from 16 to 25, two white men from 26 to 44, two women aged from 16 to 25. Ten white people and thirty-one enslaved people made Benjamin's household number at 41 people in 1820.¹²⁶ Benjamin and Sarah's last child, Samuel, was born in 1812, which clearly indicates that Pennybacker was a reasonably vigorous fifty-two-year old man. Sarah herself was certainly a hardy woman since she produced thirteen children over a twenty-five year period.¹²⁷ Not only was she healthy enough to birth and raise my children, but she also outlived Benjamin by five years. While Benjamin and Sarah had a child named Benjamin born in 1809, the boy died in 1811, so the "B. Pennybacker" who consented to such an agreement could not have been one of George's younger brothers. None of the other Pennybacker children had names that began with the letter B. This "B. Pennybacker" must be their father and Sarah's husband—our Benjamin Pennybacker.

¹²⁶ United States Census Bureau, *Fourth Census of the United States, 1820*. NARA microfilm publication M33, 142 rolls. Records of the Bureau of the Census, Record Group 29. (National Archives, Washington, D.C). From the census records in 1810 and 1820, I surmise that George M. Pennybacker still lived with his father in 1810, but had moved out of the house by 1820 although George is not listed as a head of a household in 1820. From the daybook, however, he clearly worked at Pine Forge and might have lived a one of "sundry Dwelling houses" on the property.

¹²⁷ Spencer, 64. "Tradition says of this lady that she was very strong, that she could lift a furnace hammer."

Even if the couple was in good health, Benjamin certainly had a lot of responsibilities as the sole owner of Pine Forge. His family life also required some attention. Benjamin and Sarah had to raise six-year-old Samuel. As the oldest son and an ironworker at Pine Forge, George might have offered to help his father with cleaning and mending, and Benjamin wanted to compensate him for the help. The note, however, was not just about laundry and mending; “boarding” was also part of the agreement.¹²⁸ This might indicate that Benjamin chose to live with his first-born son George for some unknown reason starting in 1820. Importantly, George did not assume control of the property until after Benjamin died. While it would seem to have made more sense for George to have paid his father for mending, washing, and boarding, the daybook clearly indicates it was the other way around. This agreement could mean that one of Benjamin’s younger siblings, possibly Isaac or Sarah, moved into George’s house to lighten the burden from his parents’ large family. George himself might have needed the company; he did not marry until age forty-eight when he wed widow Anna Crim in 1835.¹²⁹

There is another possible explanation of Benjamin’s reasoning behind paying his son George three hundred dollars. Although simplistic, this explanation is most likely the one that is closest to the truth. Benjamin may have transferred money to George through this legal account book transaction in an effort to keep certain debts separate from the rest of his children. During this period, a head of household’s death required considerable work on behalf of his

¹²⁸ *Benjamin Pennybacker Daybook*, Wednesday January 12, 1820.

¹²⁹ Wayland, *A History of Shenandoah County, Virginia*, 553.

or her executors. Perhaps this payment to George was Benjamin's way of keeping the ironworking part of his estate distinct from the rest of his estate, or maybe he was just paying off an earlier debt to George.¹³⁰

While the records do not indicate that Benjamin or Sarah were in poor health, Benjamin most likely realized that his days were numbered. He had lived sixty long years. Benjamin might have considered how quickly death can come as he remembered the circumstances of his own father's death from a horse in 1802.¹³¹ Benjamin wrote his will on December 15, sixteen days before he died, probably realizing that he was near death. In his will, he remembered all ten of his living children, including young Samuel. George and Nathan, he wrote, "shall have the entire management of my real and personal estate, consisting of my forge and all other lands and buildings." Once Samuel turned twenty-one in 1833, Benjamin wanted George and Nathan to sell "my forge on Smith Creek, heretofore mentioned, together with the land and buildings thereunto constructed" and then divide the money "equally...among my 10 children."¹³² He also gave all his thirty-one slaves to his children. He named his wife Sarah and his ten children by name: George, Nancy, Nathan, Joel, Charlotte, Mark, Rebecca, Isaac, Sarah, and Samuel.¹³³

Benjamin played just as important a role in the Pennybacker family as his father Derick did. For Benjamin, family was a constant focus of life. Brothers,

¹³⁰ See Susan A. Kern, *The Jeffersons at Shadwell*, (New Haven: Yale University Press, 2010), 159-161 for more information about the role of executors in colonial Virginia.

¹³¹ *Winchester Gazette*, Winchester, Virginia, March 3, 1802.

¹³² Shenandoah County Court Records. *Will Book L*, 278.

¹³³ Harry Long, "Pine Forge," 8.

sisters, and cousins from Pennsylvania all migrated and started fresh with these pioneering ironworkers in Shenandoah County, which is probably one reason the Pennybackers were able to become so successful. Although he lived in the backcountry, Benjamin attempted to emulate elite city folk when he purchased extravagances such as sugar and silk. While Benjamin took pride in his Pennsylvania roots, he defined himself as a typical Shenandoah Valley resident when he constructed his home in 1811. Benjamin worked hard all his life, and he finally became the sole owner of Pine Forge in 1816.

Benjamin was an ironmaster, a man with strong ties to his family and surrounding community, and he worked hard to provide some comfort for his wife and children. He did own slaves, as many as thirty-one in 1820. Although he was the ironmaster of black and white forge workers, his life was a lot more than just molten iron and loud hammers. Big events, such as fighting in the Revolution and migrating down the Great Wagon Road, and smaller ones, like watching the birth of his tenth child and buying silk for his wife, filled Benjamin's life. By exploring that life, we learn not just about one man, but also about the community he helped sustain.

Conclusion

The legacy of the Pennybacker family did not, however, end with Benjamin's death 1820. Although Benjamin's will stipulated the equal division of the Pine Forge property amongst his children once his youngest son was of age, Benjamin's wishes, as it often happens, did not come to fruition. George took a

different path than his father had planned in the will. Instead of waiting till 1833, George bought out all ten of his brothers and sisters, thereby becoming the sole owner of Pine Forge. While Benjamin stipulated that Pine Forge be sold once Samuel reached majority in 1833, George decided to take the helm soon after his father's death in 1821. The forge's daybook continues through 1821, and the day-to-day accounts remain similar to those kept while Benjamin Pennybacker was alive.¹³⁴ George had spent much of his thirty-three years in and around the forge and furnace landscape, so he had the necessary ironworking skills to operate Pine Forge.

George's achievements in ironworking, however, were short lived. By the 1840s, his financial situation was in a dire state. He went bankrupt, as he was unable to pay his sixty-two creditors. The Pine Forge property, including the house that his father built in 1811, the forge, springhouse, and other buildings, as well as nearly four thousand acres, were sold at public auction on October 22, 1842. Life continued, however, when he moved to Rockingham County and became a farmer.¹³⁵ George may have regretted his decision to buy his siblings' share and become the sole owner of Pine Forge. Perhaps Benjamin realized that the iron business was faltering, and that was the reason he ordered in his will that Pine Forge be sold and divided between his ten children. Maybe Benjamin envisioned a different kind of life for those children. While George was

¹³⁴ *Benjamin Pennybacker Daybook*, Wednesday January 12, 1820. There is a collection of George M. Pennybacker at Swem, but since they are out of the scope of this paper and my thesis time frame, I have not spent much time with them. There are ledgers and papers from the time after Pennybacker went bankrupt at Pine Forge. Pennybacker Papers; George M. Pennybacker Ledgers, Manuscripts and Rare Books Department, Swem Library, College of William and Mary.

¹³⁵ Shenandoah County Court Records, *Deed Book TT*, October 22, 1842, 362.

able to continue the Pennybacker family's ironworking legacy for more than twenty-one years, he ultimately failed. Competition from new furnaces and forges that were established after Benjamin's death may have contributed to his financial troubles.¹³⁶

Although George was the last ironworking Pennybacker in Shenandoah County, the family's reputation in the valley was still respected. In fact, two first-generation Pennybackers, who were born in Shenandoah County, were congressmen.¹³⁷ In fact, George's younger brother, Isaac Samuels Pennybacker, served as a member of the U.S. House of Representatives from 1837 to 1839, was the western district's federal judge from 1839 to 1845, and went on to serve as a senator from 1845 till he died in 1847. He was also a regent of the Smithsonian Institution.¹³⁸ Isaac Samuels Pennybacker's cousin, Judge Green Berry Samuels, who was the son of Isaac and Rebecca Samuels, also held many distinguished government positions, including congressman, circuit court judge, and state appeals court judge. Although he died in Richmond, Green Berry Samuels returned to Shenandoah County for burial in a Woodstock cemetery.¹³⁹

By the end of the nineteenth century, Shenandoah County was home to thirteen furnace and forges. Although Redwell Furnace, operated under the name of Isabella Furnace, ceased operations by 1840, some prominent furnaces

¹³⁶ Wayland, *A History of Shenandoah County*, 237-243.

¹³⁷ Wayland, *A History of Shenandoah County*, 149.

¹³⁸ Wayland, *A History of Shenandoah County*, 241, 462, 553. Spencer, 65.

¹³⁹ Gochenour, "Slave Quarters at "Green Hope,"" 2. Wayland, *A History of Shenandoah County*, 560.

were in blast through the Civil War. Union troops tried to destroy many furnaces during their time in the Shenandoah Valley. Columbia Furnace, established in 1803, Van Buren, established in 1838, and Liberty Furnace, established in 1822, produced a tremendous output of iron for Shenandoah County and beyond.¹⁴⁰ P.E. Frederick, who was the main ironmaster after the Pennybackers lost the property, operated Pine Forge before and after the Civil War till the late 1880s.¹⁴¹ After the destruction of the Civil War, “only one or two of the iron-making or ironworking establishments in the county were still running,” writes Shenandoah County historian John Wayland in 1885.¹⁴² Newspaper accounts of racial tensions at Columbia Furnace in 1880, however, provide some details of the closing days of the iron industry in the county. John W. Whistler and Company, the managers of both Columbia Furnace and Liberty Furnace, decided to change their labor force from white to African American men. Bringing in African Americans from other counties to work in these two furnaces angered whites, who were two-hundred strong in a riot, according to *The Washington Post*. Apparently, two African Americans were shot although the newspaper does not comment on whether they were fatally wounded or not.¹⁴³

African Americans were never the majority of the Pennybacker workforce, especially during the family’s first years in Shenandoah County, but several family members, such as Benjamin Pennybacker, increasingly relied on black

¹⁴⁰ Wayland, *A History of Shenandoah County*, 235, 237.

¹⁴¹ Wayland, *A History of Shenandoah County*, 241.

¹⁴² Wayland, *A History of Shenandoah County*, 242.

¹⁴³ “Serious Trouble in Virginia: Special Dispatch to the Post,” *The Washington Post*, January 29, 1880, 1.

workers as the nineteenth century progressed.¹⁴⁴ Like the house that he built at Pine Forge in 1811, Benjamin's acquisition of a growing number of enslaved workers, as well as Isaac Samuels' construction of a purpose-built slave quarters at Green Hope, demonstrates the Pennybacker family's commitment to the Shenandoah Valley society. Not all aspects of Shenandoah Valley society, however, have negative connotations like slavery.

As the valley's diverse group of settlers began to dig their roots into its soil, some people, like the Pennybackers, became increasingly Anglo in the objects they used and the houses they lived in. Although the Pennybackers may—and probably did—have Pennsylvania German objects in the interior of their homes, they chose to present symmetrical, Anglo exteriors to their prospective ironworking customers. This story of the Pennybacker family is by no means complete, as it primarily focuses only on two men, Derick and Benjamin. There are many unanswered questions left for future historians, including the important question of demand. By looking at some of the objects and buildings of the Pennybacker family, however, the story of how one group of ironworking Pennsylvanians deal with life in Shenandoah County emerges. Through stove plates and building facades, they fit into the surrounding valley landscape as they developed and expanded the county's ironworking industry.

¹⁴⁴ For example, Benjamin Pennybacker owned 31 slaves in 1820. United States Census Bureau, *Fourth Census of the United States, 1820*. NARA microfilm publication M33, 142 rolls. Records of the Bureau of the Census, Record Group 29. (National Archives, Washington, D.C).

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