Elizabeth, Eliza, Audrey May 3, 2018 ARH 5604: Field Methods I: Building Archaeology Prof. Nelson

Field Methods Report: Monroe Hill Landscape

Investigating the landscape at Monroe Hill - both the current and historic change over time - proved more challenging or perhaps ambiguous, than our classmates' efforts to investigate the built fabric of the site and its change overtime. As this course advocated, we did our best to privilege field work and site observation over archival materials, but this was increasingly difficult for our team in so much as many of the scars and changes to the site's landscape are not readily visible on the site as it appears today. That said, we adopted methodology to overcome such limitations, including the use of GPR technology. Subsequently, our report combines recorded data from the field in combination with historic documents, maps, drawings, and other archival resources associated with the Monroe Hill site to provide a better picture of the site, its significance, and its change over time.

One characteristic about Monroe Hill, that is shared across all of the teams investigating the site (landscape, main house, range, and law office), is that Monroe Hill defined a collection of buildings: including the main house, law office, ranges, and a series of evolving outbuildings.

Archival Sources

Primary source materials form a substantial part of our analysis of the Monroe Hill landscape. A manuscript from the University of Virginia Archives, the Papers Related to Titles and Deeds of University of Virginia Land from 1817-1973, is one of the most significant documents. The antebellum records show the property transfers completed between all of the landowners of Monroe Hill after 1800. The deed transfers possess useful information pertaining to the landscape as the property boundaries and existing conditions of the land are described using natural features. For example, deeds describe geographic locations in relationship to landscape features: "the second place begins at a pine tree on the mountain road, which pine tree bears S89 degrees W206 degrees from the point of beginning and ending of the first mentioned birch in Wheelers road, and runs from the pine tree to a Spanish oak."¹

Historic images from the University of Virginia Visual History Collection also provide important clues related to the changes in the landscape throughout time. During President William Thornton's tenure in particular there was significant documentation of the main house and its surrounding landscape. Although many of the images during this period are undated, it is likely they were taken in sometime between the late-nineteenth and early-twentieth centuries. Photos reveal that as late as 1915, a garden at the front of the student ranges and to the right of the main house, near the garage (Fig. 1). Additionally, aerial photographs from the early-twentieth century taken from a hot air balloon also reveal changes to the landscape. Such records become more powerful when read in conjunction with drawings and maps.

Historic maps include, a 1899 Kaigiro Sugino's blueprint of the University's gas, water and sewer systems (Fig. 2), a 1856 S. A. Richardson and Charles Ellet Map of the University of Virginia and its Vicinity (Fig. 3), and a 1858 William Pratt Plan of University Cleared Land (Fig. 3). These maps lend insight into the topography and various uses of Monroe Hill throughout the early period of the University's history. The maps also provide additional clues to buildings that

¹ Deed transfer between David A. and Mary A.F. Piper and Arthur Spicer Brockenbrough October 8, 1818.

were left undocumented, and suggest their vernacular qualities and potential involvement in housing enslaved laborers.

Sanborn maps also provide additional information about the buildings on Monroe Hill and their various purposes and value. For instance, a square garage to the north of the main house is captured in a 1929 Sanborn insurance map and labeled as a single-story structure "A" for automobile. The map drawn by William Pratt in 1855 displays a square building to the north of the main house, it is possible that this is the same structure or a different outbuilding (Fig. 3)

Not only do historic maps reveal important changes to the building footprint but, historic topographic maps of the University grounds and Monroe Hill in comparison with historic and current GIS data demonstrate that there was little to no documented change in the sites topography. This is visible in the change over time drawings (Figs. 5 & 6).

Secondary source research of Monroe Hill, included the use of existing archaeological reports written by Benjamin Ford from the Rivanna Archaeological Services. Specifically, the African American Presence at pre-Emancipation University of Virginia, 1817-1865 and The Monroe Hill Property: A Site Physical History. Secondary sources from former University of Virginia Architecture students provided useful information about the landscape as well.

Recorded Change Overtime

The records associated with the existing Monroe Hill site and landscape date back to the colonial period. While the name, Monroe Hill, first appeared during the Civil War, the site was part of a 400-acre patent purchased by Abraham Lewis in 1735.² The current name of the site

² Lewis, Abraham. Grantee. Land Grant July 19, 1735. Goochland County, Virginia. 400 acres. Land Office Patents, No. 16, 1735, p40. Library of Virginia, Richmond, Virginia; Lewis, Abraham. Grantee. Land Grant July 19, 1735. Goochland County, Virginia. 400 acres. Land Office Patents No. 16, 1735, p44.

derives from James Monroe's acquisition of the 800-acre plot in 1789. In February of 1789 Monroe wrote to Jefferson describing "the land," as "tolerably good and great art in wood."³ Monroe planned to develop his "lower plantation," consisting of Monroe Hill. Several structures were purchased by the spring of 1791, and a fire insurance policy from 1800 describes three structures, two of which are identical in size and plan. A drawing tracks the change in the building footprint overtime, mapping out chronological timeline of the development of the property from the turn of the eighteenth century to present day (Fig. 5). This drawing was based on archivals sources that are detailed below. There were a series of three major building campaigns, that field work and archival records support: Phase one dates from the 1790s to about 1819, Phase two likely mid 1820s: from about 1822 to 1823, another campaign likely occurred in the 1840s based on sources from George Spooner, and a final major early campaign in the 1860s.

Circumstances surrounding Monroe's public appointment and private finances forced him to sell 670 acres of his property to Kemp Catlett in 1806 - who later sold the land the John M. Perry. In terms of outbuildings we know that under Perry's occupation the property included a frame smoke house, an ice house, and a well.⁴ These buildings are believed to have existed during Catlett and Nichols occupation.

A letter from Jefferson to Brockenbrough, the University Proctor, in 1825, alluded to the landscape of Monroe Hill. In contrast to the Academical Village, Monroe Hill was considered more favorable for a family residence due to its distance from the bustle of student life and its

Library of Virginia, Richmond, Virginia. In Benjamin Ford, The Monroe Hill Property: A Site Physical History, (Rivanna Archaeological Services LLC: 2018): 3.

³ James Monroe to Thomas Jefferson, February 15, 1789. In Stanislaus M. Hamilton, ed. The Writings of James Monroe, Vol. 1, 1778-1794, pp:205-206, 234-235. (New York: G. P. Putnam's Sons, 1898). In Benjamin Ford, "The Monroe Hill Property: A Site Physical History," Rivanna Archaeology Services, LLC (January 2018).

⁴ Report and Documents Respecting the University of Virginia [Annual Report, 1819], p26. (Richmond: Thomas Ritchie, 1820).

outbuildings and surrounding land which could support the Brockenbrough household.⁵ Such assets attributed to the site's nineteenth-century landscape are important to consider when reviewing Monroe Hill in its entirety and within the context of the University.

The University's water system also helps to clarify Monroe Hill's landscape timeline. The earliest water supply scheme designed in 1824 channeled water from Observatory Hill down to the University's principal buildings via a network of wooden pipes and stored in cisterns on the West Lawn. Brockenbrough notes the proximity of wooden pipes to the stables and outbuildings at Monroe Hill. These wooden pipes, mentioned by Brockenbrough likely date to Jefferson's improvements to the early water system. Jefferson's design featured log pipes that were dug deeper into the ground for added security, as to solve the leakages of the 1824 supply scheme.⁶ Thus, as early as the nineteenth century it is the clear that the landscape at Monroe Hill was altered to fit the needs of both its residences, as well as the systems and needs of the greater University. Payments made to Andrew Zigler for "repairs to pump," recorded in the Proctor's Journal in 1833 support earlier evidence of such alterations to the landscape.⁷ An 1855 map, drafted by Ellot shows the location of water pipes, cisterns, as well as existing buildings and their relationship to the water system. Mention of the cistern appears again in the 1860s when Thomas Farrar a freed black worker was aid thirty-five dollars for "replacing pump logs & c on Monroe Hill." According to Ben Ford this refers to either the Brokenborough-era cistern, the Monroe-era well, or both. We did not find any evidence of a cistern on the property, but perhaps GPR

⁵ Thomas Jefferson to Arthur S. Brockenbrough, December 13, 1825. Papers of the Proctor of the University of Virginia, 1817-1905 [Proctor's Papers], RG-5/3/1.111, Box 5. Special Collections Department, University of Virginia Library, Charlottesville, Virginia, in Benjamin Ford, *The Monroe Hill Property*, (2018): 12.

⁶ Arthur S. Brockenbrough to John H. Cocke, August 8, 1827. John H. Cocke Papers 1725-1939, Box 52, in Benjamin Ford, *The Monroe Hill Property*, (2018): 14.

⁷ Proctor's Journals, Vol. 4: 1832-1844, May 31, 1834, p110, in Benjamin Ford, *The Monroe Hill Property,* (2018): 14.

performed on the back of the site might lend new findings.

Another recorded installment to the landscape occurred in the mid 1830s when local suppliers sold 125 locust posts "to enclose [the] Proctor's yard."⁸ An image from 1856 records this fence, or a subsequent fence enclosing the front yard at Monroe Hill. Apparently, in the 1850s a University Farm was "attached to the Proctor's House."⁹ Yet it is unclear where the Farm was located, perhaps to the north or the west of the main house, and it does not seem to alter how the landscape is interpreted on the whole.

The University purchased Monroe Hill in 1820 and in the wake of the Civil War Monroe Hill was designated as an official faculty housing and remained as such up to the mid-twentieth century. ¹⁰ Under Professor Venable's occupation in 1866 changes to the Monroe Hill yard were made and documented.¹¹ The earlier fence was replaced and privies which featured in an earlier iteration of the yard were removed. A map made b E.S. Campbell from 1828 shows stables which were later demolished around 1829 to make room for dormitories. The elevator and adjoining brick pathway were constructed to the south of the main house in 1994. In August of 188, the Board of Visitors approved \$2,000 for "the improvement of grounds" at Monroe Hill.

2006 aerial imagery of Monroe Hill displays a narrow pathway diagonally connecting the two major paths still existing on the site (Fig. 7). This narrower pathway was removed in the last six months (2017) as can be seen in visible disruption to the site via the different grass texture evident in a recent photo taken (Fig. 8)

⁸ Proctor's Journals, Vol. 4: 1832-1844, November 1836, p145; February 1837, p149, in Benjamin Ford, *The Monroe Hill Property*, (2018): 16.

⁹ BOV Minutes, June 25, 1849; June 25, 1851, in Benjamin Ford, *The Monroe Hill Property*, (2018): 18.

¹⁰ Benjamin Ford, *The Monroe Hill Property*, (2018): 11.

¹¹ Ibid, 20.

Methodology: Ground- Penetrating Radar and GPS

Ground-penetrating radar (GPR) is a method of using radar pulses to produce images of the subsurface. Electromagnetic radiation is able to detect reflected signals from subsurface structures. The GPR transmitter system contains antennas that transmit and receive radio frequency waves. The GPR system is portable, it sits on wheels and is pushed over the study area (Fig. 9). Radio frequency waves are then penetrated into the surface that is being investigated. The GPR transmitter correlates to a screen that displays the results of the radio wave penetrations. As the waves are being sent into the surface, the signal mostly dissipates. However, a percentage of the signal comes back and is received by the antenna. The return signal provides data that is displayed on the screen. The results from the antenna can be recorded and later interpreted by the user.

The recorded images show the size and depths of the objects under the ground's surface and where they are located. The GPR is primarily used to show differences in material composition. Objects that are buried beneath the ground surface will appear different than the surrounding soil compositions. This is helpful in determining archaeological records and evidence of past architectural features. Although the GPR can detect the presence of objects under the ground surface, it does have its limitations. It cannot determine depth or vertical profiles of objects. GPR often picks up the presence of more modern innovations, like pipes and cables as well as tree roots and other naturally occurring disruptions.¹²

Due to preliminary investigation of the site we knew that there was the possibility of finding a path that connected from the original house of James Monroe to the Academical

¹² Ground Penetrating Radar Faq http://www.usradar.com/about-ground-penetrating-radar-gpr/faq/

Village. We used the GPR to determine evidence of the path's presence. Starting at the landscape closest to the original doorway of the Law Office, we traced the ground horizontally to see if the GPR would find evidence of the path (Fig. 10). In order to counteract the error of modern improvements in the ground we used an updated copy of the utilities map to ensure that we were not picking up signals from pipes or cables. When we found something of interest on display, we placed a flag into the earth where the point correlated with the GPR results. We surveyed the front of the Monroe Hill landscape using GPR, and placed flags into the points of interest throughout.

After we completed the GPR process, we digitally documented the flagged areas using Global Positioning System (GPS) coordinates. We used an advanced GPS receiver to record the precise locations of the features we picked up using the GPR. The GPS points were recorded and then transferred to Geographic Information System (GIS) (Fig. 11). Once the points are in GIS they can be mapped and further analyzed.

Path details:

After prefroming the GPR and GIS analyisis, we obtained details of the path from other classmates who had the opportunity to examine the sample of bricks from under the attached range. From our GPR analysis we concluded that the path went from the Law Office to the east of the property. Additional data supported this claim and provided us with further details into the size, pattern, location and age of the bricks.

We determined that the path travels vertically parallel to the Law Office, but then makes an abrupt 90 degree turn and intersects at the site of the original door of the building. Today, there is a fire place at the location of the original doorway where the path began. The chimney is a useful dating tool because it suggests a later addition to the building and further confirms an earlier date of the path.

The path follows a simple brickwork pattern. Stretchers are placed as the boundary of the path, with headers used elsewhere. The width of the brick path shifts from 3 feet to 2.5 feet when the path makes a 90 degree turn. The footer of the horizontal brick pattern meets the header of the vertical running bricks to facilitate the reorientation of the path. (Fig. 12) The bricks are generally two sizes, 8 x 3 3/4", and 8 $\frac{1}{4}$ x 4". The bricks that are used as stretchers measure 8 x 2 $\frac{1}{2}$ ".

Concluding Thoughts:

Through our GPR analysis, we found evidence of the path extending from the Law Office. This confirms the preliminary site investigation, which shows an exposed brick pathway under the second room of the range between the Main House and the Law Office (Fig. 13, 14). Upon initial examination, the path mapped out through the GPS data appears to be connecting the Law Office to what is presently a vehicular driveway. However, upon further analysis, we conclude that there are multiple possible explanations for the direction toward which the path was headed. These explanations would also illuminate the path's intended use.

In general, because the path was connected to the Law Office, it is likely that it dates around the time of the Law Office's construction. It could also be possible that the path post-dates the construction of the Law Office. Therefore, the path dates anywhere between the construction of the Law Office around 1790 and 1856, where the path has clearly disappeared on "A Map of the University of Virginia" dated that year (Fig. 15). In addition, because we know the construction of the ranges, dated 1848, likely would have covered up a portion of the path (rendering it unusable), we can postulate that the path existed between c. 1790 and 1848. Therefore, it becomes logical to discern major events that took place in this date range in order to identify a more precise date of the path's existence. Once the date of the path's existence has been established, we can better narrate the story of the path, the site of Monroe Hill, as well as its relationship to its surrounding context.

Land use maps, in this case, become particularly useful. These maps can show the different types of land use around Monroe Hill and the change overtime. Therefore, they can reveal the important relationships between different parts of the landscape that can be critical to our interpretation of the path. From the land use map of 1790 (Fig. 16), the path appears to be headed from the Law Office toward an area of the land that was classified as field/pasture. Documentary evidence describes the presence of farmland, or what Monroe would have described as his "lower plantation.,"¹³ in that area. This supports our explanation for where the path connected to and its intended use--it is possible that the path had been constructed around 1790 along with the Law Office, and it was used to connect the Law Office to Monroe's lower plantation. However, when the ranges were built in 1848, it may have been decided that the path was no longer practical because it was going to be covered up. As a result, the path was erased from the landscape.

Through the analysis of the land use change overtime of the greater Monroe Hill area, we can see that a major change had occurred in 1819/1820 (Fig. 17) in the area that used to be Monroe's lower plantation. This date, of course, marks the inception of the University of

¹³ Ford, *The Monroe Hill Property*, (2018): 5.

Virginia. The creation of the Academical Village began to materialize with the completion of Pavilion VII in 1819. Our second explanation for the identity of the path, therefore, revolves around the possibility that the path headed toward the Academical Village. It was possible that the brick path was not constructed when the Law Office was built, and that it was not until 1819/1820 that the path was created in order to provide access from the Law Office to UVA. Once again, the path may have disappeared with the construction of the ranges in 1848. This second explanation dates the path between 1819/1820 to 1848.

The second explanation is further buttressed by documentary evidence. It was recorded that a large number of bricks were purchase around this time.¹⁴ While this remains a speculation, it is possible that some of the bricks that were purchased went to the paving of the brick path. Perhaps the construction of the Academical Village posed a need for access from the Law Office to UVA. Bricks were thereby purchased and used for the path, fulfilling the need to have access between the Law Office and the Academical Village.

An additional explanation for the date and direction of the path is based on evidence of existing roads in the area before the Monroe Hill dwellings were constructing, suggesting that the structures were built after the road, and the pathway was constructed to connect residents to existing services.

Before buildings were constructed on Monroe Hill, Three Notch'd Road likely already existed, following the route of Main Street and University Avenue. In 1745, landowners petitioned the Albemarle County Court for a new road that would connect Benjamin Wheeler's property into the Four Chop't Road to Wood's Gap. The new road went from the eastern section

¹⁴ Ford, *The Monroe Hill Property*, (2018): 12.

of the Academical Village and south.¹⁵ The Albemarle County Road Orders from 1725-1816 suggest that the Three Chop't Road likely existed where the present day McCormick road is. The road would have "avoided the swampy headwaters of Meadow Creek and instead followed high ground,"¹⁶ thus suggesting that there was a road at the site predating the construction of buildings on Monroe Hill.

One of the potential explanations of the path is that it was constructed from the Law Office to Three Chop't McCormick Road during the 1790s construction of the Monroe Hill Dwellings. Since the Law Office was likely finished first and the primary Monroe residence during the 1790s, it makes sense that the path would have gone from the Law Office to the road that connects to the rest of the Charlottesville area. This drawing illustrates the relationship between the brick path that we have discovered through GPR and the roads leading to the greater Charlottesville area around 1790 (Fig. 18).

Future Research:

A good opportunity for future research would be to perform additional GPR work in the back of the site, behind the main house. Due to time restraints and limited resources, we were only able to use the GPR on the front lawn of Monroe Hill. Evidence suggests that there were likely various outbuildings and a cistern located on the property. Locating the property's cistern would provide important information about gathering and storing water and provide more insight on the landscape of the early Monroe Hill property. Since our initial GPR analysis only provided

¹⁵ Ford, *The Monroe Hill Property*, (2018): 4.

¹⁶ Ford, *The Monroe Hill Property,* (2018): 4.

evidence of a path in the front of the buildings, it will be necessary to do a full inventory of the property in the future to get a cumulative analysis of the site. The back of the property between the house and the brick wall, including the area surrounding the garage will likely provide evidence of other historic building activity.

Furthermore, further research can be done into the role of enslaved laborers at Monroe Hill. There is significant documentation of the presence and lives of the many enslaved laborers who worked and resided at the University of Virginia. At Monroe Hill specifically, the role of enslaved laborers is not entirely understood. However, through various field method techniques and analysis, the untold narratives can be uncovered.

There is evidence that the earliest built accommodation for slaves on Monroe Hill was before the site was an official part of the University of Virginia in 1819. In addition to the law office and main house, there was a "two-room 'negro quarter." Though there is evidence that this space did exist at one point, "its precise location is not identified, it is assumed that the University took advantage of the existing slave quarter and house its hired servants there." In addition to housing, slave labor cultivated the farm and garden on Monroe Hill from 1853-1863.

When the university first opened, enslaved laborers were housed in spaces that were located close to their workplace or in separate labor- specific housing. As a result, many lived in the basements of the hotels and pavilions. A university policy was put into place in 1828 that stated that slaves needed their separate living spaces and that it was the "duty of the proctor" to make additional spaces. Between 1828 and 1829 there were 8 additional buildings built on the grounds to accommodate the new policy for slave living quarters.

The general laborers were moved into the Janitor's house. Which is a property located

just south of Monroe Hill. The presence of enslaved laborers on the Monroe Hill property was possibility referenced in the 1858 Pratt map. There is a small unlabeled structure on that is directly adjacent to the Janitor's reference. There is additional documentation that enslaved laborers cultivated the farm and garden on Monroe Hill. Later maps show Dawson's row in the location where the Janitor's house and other outbuildings are. Post- Civil war maps show an absence of these structures.

Further research into the role of enslaved laborers on Monroe Hill through the exploration of vernacular landscape has the potential to expose the untold narratives of the lives of the enslaved laborers who had such a fundamental yet forgotten role in the formation of the University of Virginia.

Illustrations



Figure 1 Photos reveal that as late as 1915, a garden at the front of the student ranges and to the right of the main house, near the garage



Figure 2 1899 Kaigiro Sugino's blueprint of the University's gas, water and sewer systems



Figure 3 1870 Detail of the Charles Ellet Map showing the University of Virginia and Monroe Hill



Figure 4 1858 William Pratt Plan of University Cleared Land.



Drawing of the change overtime at Monroe Hill, based on archival sources 1790 to present day. Eliza Hodgson 2018.



Figure 6 Drawing with outbuildings and current Main House, Law office and Range footprint. Eliza Hodgson 2018.



Figure 7 Aerial imagery of Monroe Hill taken in 2006, displaying diagonal pathway no longer on the site



Figure 8

Photograph taken on site March 28 showing the difference in grass texture and disruption to the landscape following the removal of the narrow diagonal path in late 2017.



Figure 9 GPR outside of the range on Monroe Hill



Figure 10 Image: Flagged points of interest that were determined using GPR



Figure 11 Results from GPR, disturbances in the lines suggest the presence of archaeological evidence beneath the ground's surface



Figure 12 Detail of path brickwork, Elizabeth Munyan 2018.



Figure 13 Photo from on-site investigation showing an exposed brick pathway under the second room of the attached range.



Figure 14 Detail of the brick pathway found under the attached range, Ben Ford, date n/a



Figure 15 "A Map of the University of Virginia" dated 1856, the discovered path is not included, therefore likely disappeared by this date/drawing.



Figure 16 Greater Monroe Hill 1790 Land Use Map. Audrey Li 2018.



Figure 17 Greater Monroe Hill 1819&1820 Land Use Map. Audrey Li 2018.



Figure 18 Greater Monroe Hill Road Map c. 1790. Audrey Li 2018.

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