Darby O'Donnell, LLC
Moving the Past Forward

Phase I Cultural Resource Identification Survey of Proposed Mountain Bike Trails and Parking Lot at Explore Park

Roanoke County, Virginia

October 28, 2018

VDHR File Number 2019-0649

Prepared For:

Balzer and Associates, Inc.
1208 Corporate Circle
Roanoke, VA 24018

In Coordination With:

Roanoke County Parks
Recreation and Tourism
1206 Kessler Mill Road
Salem, VA 24153

Federal Highway Administration
Recreation Trails Program
Virginia Division
400 North 8th Street, Suite 750
Richmond, VA 23219-4825

Prepared By:

Darby O'Donnell, LLC
7705 Wood Rd.
Henrico, VA 23229
804.564.2077

(Gilmer 1864)

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Prepared by:

Darby O'Donnell, M.A., RPA
Principal Investigator

Darby O'Donnell, LLC
7705 Wood Rd.
Henrico, Virginia 23229

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ABSTRACT

Darby O'Donnell, LLC has completed a Phase I cultural resource identification survey of proposed mountain bike trails and an associated parking lot at Explore Park in Roanoke County, Virginia. The bicycle trails take circuitous paths connecting at Chestnut Ridge and a proposed parking lot at Rutrough Rd.

The Phase I survey of the proposed bicycle trails and associated parking lot identified two archaeological sites within the project area.

Site 44RN0422: Late Archaic (3,000-1,200 B.C.) Temporary Camp

This site represents a prehistoric temporary camp site dating to the Late Archaic (3,000-1,200 B.C.) period. The Phase I survey defined Site 44RN0422 through three shovel tests positive for cultural material. Site integrity was impacted by erosion along the crest of the ridge line. Due to the erosion of soils, paucity of artifacts, and the limited research potential in general, *Site 44RN0422 is recommended as not eligible for listing in the National Register of Historic Places under Criteria D. Criteria A-C are considered not applicable. No further work is recommended for this site.*

Site 44RN0423: Late Archaic (3,000-1,200 B.C.) Temporary Camp and Lithic Procurement Site overlain by a Late 20th Century Trash Scatter

This site represents a prehistoric temporary camp and lithic procurement site dating to the Late Archaic (3,000-1,200 B.C.) period overlain by a late 20th century trash scatter. The Phase I survey defined Site 44RN0423 through eight shovel tests positive for Native American cultural material. Site integrity was severely impacted by erosion of the ridge line and the construction of a dirt road that was maintained by bull-dozing. Due to the site impacts and the limited research potential in general, *Site 44RN0423 is recommended as not eligible for listing in the National Register of Historic Places under Criteria D. Criteria A-C are considered not applicable. No further work is recommended for this site.*

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF PLATES

LIST OF TABLES

INTRODUCTION

Darby O'Donnell, LLC has completed a Phase I cultural resource identification survey of proposed mountain bike trails and an associated parking lot at Explore Park in Roanoke County, Virginia. The bicycle trails take circuitous paths connecting at Chestnut Ridge and a proposed parking lot at Rutrough Rd. (Figure 1). The proposed bike trails account for approximately 10,000 linear feet and the proposed parking lot is 0.5 acres (Figure 1)

The Phase I identification survey and reporting was conducted with regard to the Advisory Council on Historic Preservation's (ACHP 2001) 36 CFR Part 800: Protection of Historic Properties; the Department of Interior's 36 CFR 60: National Register of Historic Places (NHRP) (United States Department of the Interior [USDI] 1981); VDHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (VDHR 2017); and the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (USDI 1983).

This project was conducted for Balzer and Associates, Inc. in coordination with Roanoke County Parks, Recreation and Tourism and the Recreation Trails Program of the Federal Highway Administration.

The background research, archaeological fieldwork, artifact analysis, graphic compilation, and reporting phases of this project were performed by Darby O'Donnell, M.A., RPA who served as the Principal Investigator.

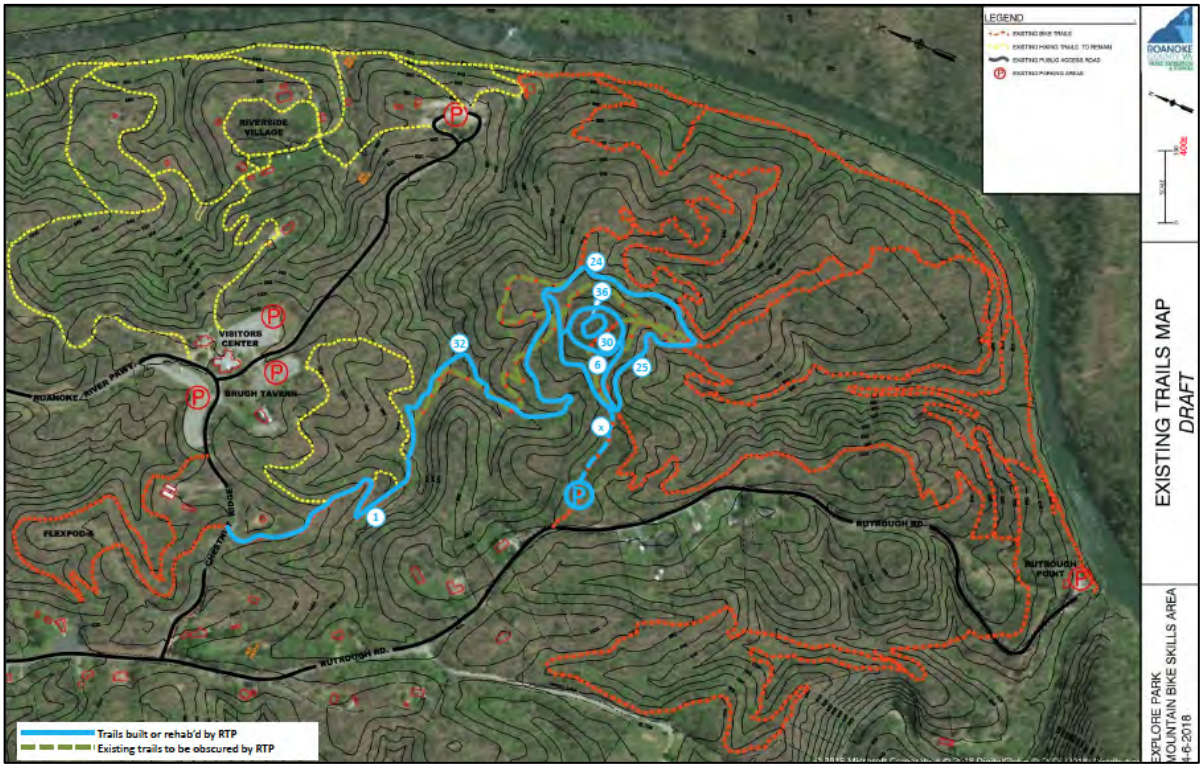

Figure 1. View of the Proposed Mountain Bike Trails and Parking Lot [Blue] and Existing Trails [Red and Yellow] at Explore Park (Map Courtesy Roanoke County).

ENVIRONMENTAL CONTEXT

Physiography and Geology

The project area is located within the Ridge and Valley physiographic region of Virginia. Located within Roanoke County, the project area is east of Roanoke and connects Chestnut Ridge Road with Rutrough Road within Explore Park.

In general, this region is dominated by broad and narrow ridges boasting a dramatic rolling topography (Plates 1 and 2). The project area encompasses both rolling highlands and lowlands associated with tributaries west of the Roanoke River. In this capacity, the project area ranges in elevation from 1040 ft. amsl. at the western end of the proposed trail head at Chestnut Ridge Rd. to 940 ft amsl along the tributary drainages on the eastern end on the circuitous grouping of trails.

Climate

This region within Roanoke County maintains a temperate climate with standard four-season variation. The mean annual air temperature is 50-57 degrees Fahrenheit with a mean annual precipitation of 30 to 45 inches. The frost-free period can range from 117 to 185 days (USDA 2019).

Hydrology

The Roanoke River drains the principal watershed of the project area. Unnamed tributaries adjacent to the project area flows east and south into the Roanoke River. The Roanoke River is located approximately 2,000 ft to the east of the project area.

Soils

Soils within the project area are consistent with the types found within the Virginia Ridge and Valley physiographic region. The project area contains Hayesville fine sandy loam on 7-15% slopes, Hayesville fine sandy loam on 15-25% slopes, and very stony Hayesville channery find sandy loam on 25-50% slopes (Figure 2, Table 1). Hayesville fine sandy loam on 7-15% slopes are well-drained, have a parent material of Residuum weathered from granite and gneiss and schist, and are considered farmland of statewide importance. Hayesville fine sandy loam on 15-25% slopes are well-drained, have a parent material of Residuum weathered from granite and gneiss and schist, and are considered farmland of statewide importance. Very stony Hayesville channery fine sandy loam on 25-50% slopes are well-drained, have a parent material of Residuum weathered from granite and gneiss and schist, and are not prime farmland.

Plate 1. View of Steep Slopes Along Trail 24, Facing Northwest.

Plate 2. View of Landscape and Steep Slope Along Trail 2, Facing East.

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
26C	Hayesville fine sandy loam, 7 to 15 percent slopes	3.6	19.9%
26D	Hayesville fine sandy loam, 15 to 25 percent slopes	4.8	26.8%
28E	Hayesville channery fine sandy loam, 25 to 50 percent slopes, very stony	9.6	53.3%
Totals for Area of Interest		**18.0**	**100.0%**

Table 1. Soil Types Located within the Project Area.

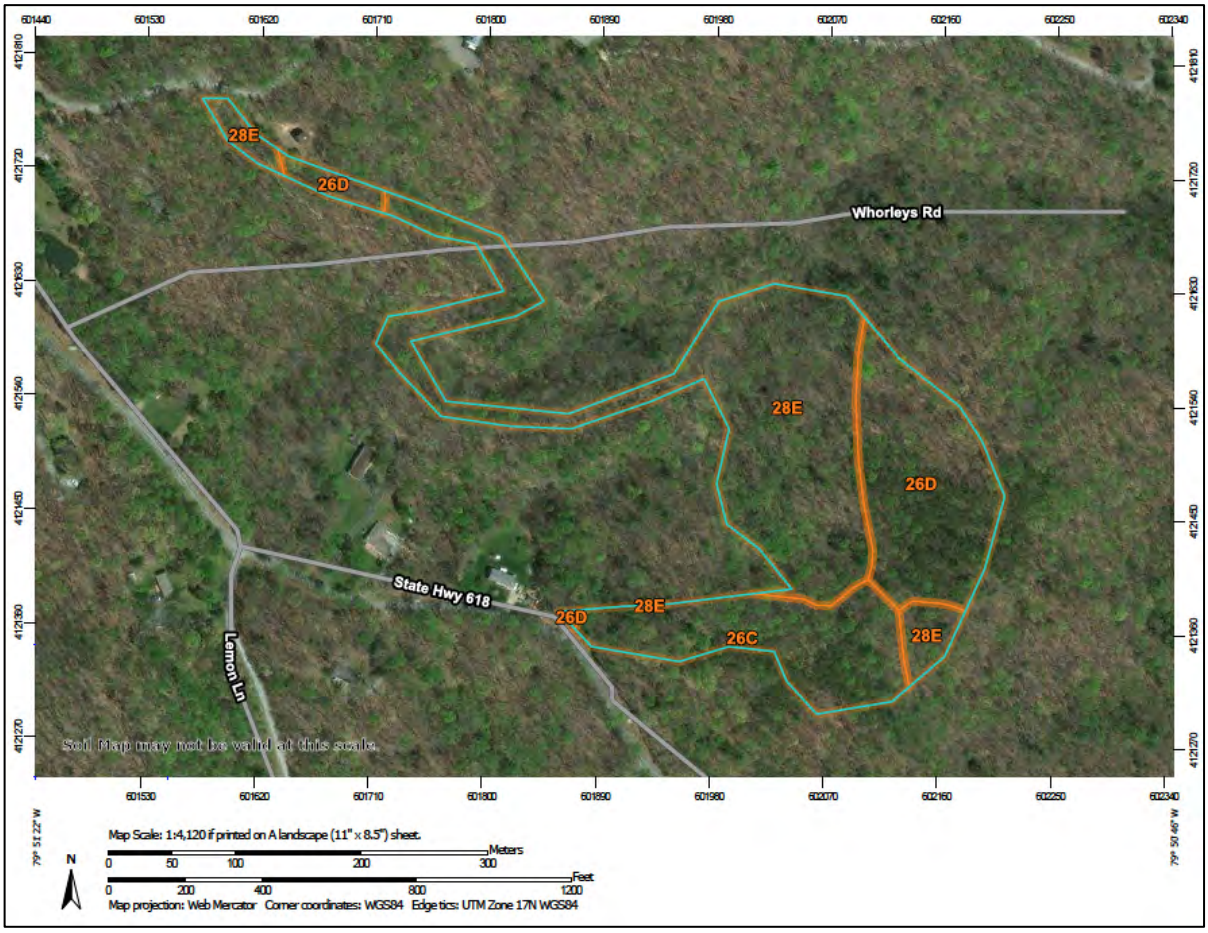

Figure 2. Soil Types Found within the Project Area (USDA 2019)

CULTURAL CONTEXT

This section provides a summary of the prehistoric and historic background research that establishes the appropriate cultural context for the project area as defined by the United States Department of the Interior's (USDI) *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (NPS 1983), as well as VDHR's *Guidelines for Conducting Historic Resources Surveys in Virginia* (VDHR 2017).

Prehistoric Context

Virginia's Native American prehistory is divided into the Pre-Clovis, Paleoindian, Archaic, and Woodland periods, based on changes in material culture and settlement systems. Descriptions of characteristics and lifeways that define each of the prehistoric time periods are summarized below. In addition, an assessment of probability for finding archaeological sites from each time period is presented at the end of each time period.

Pre-Clovis (Prior to 13,000 B.C.)

Up until recent years, the Paleoindian occupation in Virginia was considered the first human occupation of the region, and began sometime around 13,000 B.C. This prehistoric cultural was defined primarily by fluted points of a distinctive style that had been definitively dated via radiocarbon tests. These Clovis and Folsom projectile points defined that Paleoindain culture. However, recent discoveries at the Cactus Hill site in Sussex County, Virginia have not only pushed the earliest date of occupation back in Virginia, but identified a distinctly different culture that pre-dates the fluted Clovis and Folsom point makers.

Buried strata containing lithic artifacts at Cactus Hill have produced radiocarbon dates of 15,000 years ago from strata situated below levels containing fluted points (McAvoy and McAvoy 1997:165). In addition, the artifacts recovered from the pre-Clovis levels demonstrate a different, yet extremely refined, lithic reduction technology. These pre-Clovis artifacts did not demonstrate a reliance on finished chert knives, scraping tools, and spear points as the Clovis and Folsom cultures did. The majority of the pre-Clovis artifacts consisted of prismatic blade-like flakes of quartzite, chipped from specially prepared cobbles and lightly worked along one side to produce a sharp edge. In addition, sandstone grinding and abrading tools were found in the pre-Clovis strata, indicating the pre-Clovis culture's production and refinement of artifacts that would include wood and bone tools or ornaments.

No previously identified pre-Clovis resources are located within one mile of the project area. The probability of identifying a pre-Clovis archaeological remains within the project area is extremely low.

Paleoindian Period (13,000 - 8,000 B.C.)

The Paleoindian period is defined by the diagnostic fluted points such as Folsom and Clovis points that represent a major component of the earliest post-Pleistocene inhabitants' tool kit. It was the finding of a fluted point in the ribs of an extinct species of bison in Folsom, New Mexico that scientifically established that Native Americans had immigrated during the Pleistocene into North America. Little is known of this period due to the paucity of material culture that has survived (Meltzer 1988).

The earliest diagnostic artifacts from this period are Clovis projectile points, which are typically fashioned of high-quality cryptocrystalline materials such as chert, chalcedony, and jasper. Later Paleoindian points include smaller Clovis and Cumberland variants. The projectile points are further refined over time to include Dalton, Hardaway-Dalton, and Hardaway Side-notched points at the end of the era. Other tools of the Paleoindian people include endscrapers, sidescrapers, and other formalized tools that demonstrate some uniformity in production that allows for diagnostic analysis.

In Virginia, Paleoindian sites are extremely rare, and represented in the archaeological record primarily of isolated projectile point finds and what appear to be small temporary camps. This archaeological special pattern provides credence to the theory that eastern Paleoindians organized themselves in small bands, were generalized foragers with an emphasis on hunting that exploited a wide territory defined by the availability of lithic, botanical, and faunal resources. However some larger, extremely rare, Paleoindian base camps are present in Virginia. These Paleoindian base camps include the Thunderbird Site in the Shenandoah Valley (Gardner 1974, 1977) and the Williamson Site in south-central Virginia (McCary 1951, 1975, 1983). Both base camps are associated with local sources of high-grade cryptocrystalline lithic materials essential to the sustainability of the Paleoindian culture (Gardner 1981, 1989).

One Paleoindian site is located within a mile of the project area. While the project area is located within Roanoke County, the likelihood of finding Paleoindian sites is low.

Archaic Period (8,000 – 1,200 B.C.)

The early Holocene in Virginia continued on a developmental trajectory that had started at the end of the Pleistocene with an increase in temperatures, a continued rise in sea levels, and the full development of the post-glacial, oak-hickory-pine forest. The boreal biota of the late Pleistocene were extirpated or were restricted to refugia in the highest elevations of the central Appalachian Mountains (Delcourt and Delcourt 1985). There also was an increased stability in the geomorphology of the post-glacial landscape (Conners 1986).

The beginning of the Archaic Period coincides with the end of the Pleistocene epoch and dawn of the early Holocene. The early Holocene introduced a climatic shift from a moist, cool period to a warmer, drier, more temperate climate. Vegetation also changed at this time from a largely boreal forest setting to a mixed conifer-deciduous forest. A subsequent rise in sea level associated with the more temperate climate began the formation of the Chesapeake estuary in Virginia and the region (Dent 1995: 147).

The change in climate marked a change in the seasonal availability of botanical and faunal resources relied upon by Native Americans. Adapting to the ecological change, Native Americans of the Archaic period demonstrate a cultural mobility geared toward seasonal change. Despite the change in mobility, the Archaic period people utilized a tool kit similar to that of the Late Paleoindian period and settlement and their patterns of subsistence were largely the same. There is also a clear increase in site size and frequency of sites during the Archaic period demonstrating a steady population increase (Claggett and Cable 1982, Egloff and McAvoy 1990).

Archaic populations are thought to have been primarily characterized by a band-level (20-30 individuals) social organization involving seasonal movements corresponding to the seasonal availability of resources and, in some instances, shorter-interval movements.

Settlement during the Archaic Period likely involved the occupation of relatively large regions by single band-sized groups of 20 to 30 individuals living seasonally in base camps during part of the year to take advantage of regionally specific resources and dispersing into smaller micro-bands on a seasonal or as-needed basis for further sustenance. These micro-bands could have consisted of no more than single families (Griffin 1952, Anderson and Hanson 1998, Ward and Davis 1999).

The Archaic Period can be characterized by the development of more specialized resource procurement activities as well as the technology to accomplish these activities. These differences in the material culture are believed to reflect larger, more localized populations and changes in methods of food procurement and processing.

A defining feature of the Archaic Period is emergence of ground stone technology. These new ground-stone tools include atlatl weights and celts, ground stone net sinkers, pestles, pecked stones, mullers, axes, and vessels carved from soapstone quarried in the Piedmont during the Late Archaic.

Early Archaic (8,000 – 6,500 B.C.)

The Early Archaic period coincides with the emergence of the Holocene and introduction of warmer temperatures, the retreat of the glaciers, and a subsequent rise in sea levels. Early Archaic people still maintained a preference for high-quality lithic resources, however there was an adoption of a variety of new lithic materials including greenstone, quartzite and quartz. These lithics were available on a more regional scale and in much greater abundance, allowing for increased mobility and wider-ranging settlement.

The fluted points of the Paleoindian period were replaced with smaller projectile points that were side-notched or stemmed to facilitate hafting. Serrated edges of the blades were also a defining characteristic. These technological changes reflect the adaptation of new hunting strategies that were oriented toward smaller game animals (McMillan and Klippel 1981). Diagnostic projectile points of the Early Archaic period in Virginia include Kirk Stemmed and Notched, Palmer Corner-Notched, and several small bifurcated-base types such as the LeCroy. The bifurcated forms probably derived from the Kirk corner-notched type and then developed into or were replaced by stemmed forms (e.g., Stanly and Morrow Mountain) (Anderson 1991:94).

This period also witnessed the introduction of a ground stone tool technology which included implements such as mortars, pestles and nutting stones, presumably for processing gathered foods. Chenopods, amaranth, hickory nuts, butternut and possibly acorns have been recovered from the Crane Point site on the Eastern Shore (Lowery and Custer 1990).

One previously identified archaeological site with an Early Archaic component is located within one mile of the project area. In addition, seven previously identified archaeological sites have prehistoric component without a specific temporal affiliation which could be associated with this period.

Although more prevalent than Paleoindian sites due to increased population and wider-ranging mobility, the likelihood of identifying an Early Archaic site with the project area is low. However, that probability increases as the project area approaches the Roanoke River which would have provided a far better landscape for temporary or seasonal occupation with easy and abundant access to fresh water, fish, and game.

Middle Archaic (6,500-3,000 B.C.)

The settlement pattern of Middle Archaic people is characterized by distinct camps ranging in size and functionality. These camps include larger base camps along major stream and river systems and smaller, short-term camps along smaller streams and upland ridges. Base camps were established at the confluence of a major stream, tributary, or on an elevated terrace or broad ridgeline above a floodplain or marsh. These base camps allowed for the continued exploitation of a great variety and quantity of resources within a small area.

This period sees a distinct increase in archaeological sites or site component from the Early Archaic. Also distinct is the adoption of various stemmed projectile point forms. Regionally, the most common Middle Archaic projectile point types are Stanly, Morrow Mountain, and Guilford types. The side-notched Halifax projectile point becomes far more prevalent towards the end of the Middle Archaic, as the Late Archaic period is ushered in.

Despite the diagnostic projectile point forms of the Middle Archaic, the majority of the tools in the archaeological record are expedient tools, flakes removed from larger cobbles or cores, used for scraping or cutting and then discarded (Blanton and Sassaman 1989:64, Claggett and Cable 1982, Ward and Davis 1999). This expedient tool assemblage is thought to be a result of the Climatic Optimum (6,000 B.C.-2,000 B.C.), a warmer and drier climate that became less predictable and required the Archaic peoples to adapt to the changing climates and move to where the resources were available (Wendland and Bryson 1974, Claggett and Cable 1982, Ward and Davis 1999). There is also a noted shift toward quartz as a preferred raw material for tool production that occurs in the Middle Archaic (Gardner 1989).

No previously identified archaeological sites with Middle Archaic components are located within one mile of the project area. However, seven previously identified archaeological sites have prehistoric component without a specific temporal affiliation which could be associated with this period.

Populations and archaeological site frequency increases during the Middle Archaic. As such, the likelihood of identifying a Middle Archaic site within the project area is moderate. However, that probability increases as the project area approaches the Roanoke River which would have provided a far better landscape for temporary or seasonal occupation with easy and abundant access to fresh water, fish, and game.

Late Archaic (3,000 - 1,200 B.C.)

The Late Archaic period is characterized by an increase in population and a decrease in mobility which results in a population density unlike any previous prehistoric era. This trend is indicative of a shift to agricultural exploitation. Agriculture in Virginia and the wider Middle Atlantic region likely had its origins during this period. Sunflower, sumpweed, and goosefoot are presumed to have been cultivated as early as 2,000 B.C. according to archaeological evidence (Yarnell 1976:268). Remains of squash have also been found in Late Archaic contexts (ca. 2,400 BC) with gourd appearing to be exploited in later period contexts (Chapman and Shea 1981: 70). In concert with these agricultural efforts, Late Archaic people began to use soapstone vessels for food storage and possibly cooking (Custer 1988, Klein and Klatka 1991, Klein 1997, Mouer 1991).

This period is dominated by stemmed and notched points, including various large, broad-bladed stemmed knives and projectile points such as the Savannah River points and their

variants, Halifax, Vernon, and Bare Island, that generally diminish in size by the succeeding Early Woodland period (Coe 1964). Susquehanna and Perkiomen points are also indicative of this time period, but are regionally associated in area of Pennsylvania and the northeast region of America, and are only found in limited numbers in Virginia.

The lithic tool kits of the Late Archaic also became more diverse with the greater adoption of axes and ground stone celts and the introduction of mortar and pestles in addition to net-sinkers. Polished atlatl weights and grooved axes are examples of ground stone tools that are more prominently associated with the Late Archaic.

Archaic sites are located throughout Virginia and the region, with Middle and Late Archaic sites being the most prevalent. However, Late Archaic sites are well over twice as numerous as Middle Archaic sites (e.g. Barber et al. 1992). Although the Late Archaic site locations show that a greater number of topographic areas and soil types were utilized, the distribution pattern is similar to that of earlier periods with respect to the sizes of streams on which the sites are located, suggesting that Late Archaic occupations did not have a strong riverine emphasis.

One previously identified archaeological site with a Late Archaic component is located within one mile of the project. In addition, seven prehistoric sites with an unknown specific temporal affiliation are found with one-mile of the project area. These “prehistoric-unknown” sites are likely affiliated with the Archaic Period due to their size and lack of ceramics. With Late Archaic populations beginning to condense and nucleate with less of an emphasis on mobility, the likelihood of identifying a Late Archaic site within the project area is moderate.

Woodland Period (1,200 B.C. – 1600 A.D)

The Woodland Period is divided into three subperiods, the Early Woodland (1,200 – 300 B.C.), Middle Woodland (300 B.C. – 900 A.D.) and Late Woodland (1250 - 1600) based on stylistic and technological changes in ceramic and projectile point types, a gradually developing dependence on horticulture, and increased sedentism (Klein and Klatka 1991; Mouer 1991).

One archaeological site located within one mile of the project area has a general Woodland temporal designation. With a Woodland settlement pattern of concentration and nucleation of populations along rivers and major tributaries for horticultural and defense with far less emphasis on mobility, the likelihood of identifying a Woodland village site with the project area is low. It is possible, however, that small temporary hunting camps could be found along the upland ridges associated with the project area.

Early Woodland (1,200 B.C - 500 B.C.)

The Early Woodland Period is generally defined by the appearance of ceramics in the archaeological record. he earliest Woodland ceramic wares include Marcey Creek Plain and variants. These ceramics would have been rectangular or oval and resemble the preceding Late Archaic soapstone vessels. It is of interest that crushed pieces of soapstone vessels are sometimes found to have been used as temper in these early ceramics. These ceramics are followed by cord-marked, soapstone-tempered Selden Island ceramics followed, in turn, by sand- and grit-tempered Elk Island (Accokeek) ceramics with both plain and cord-marked surfaces (Egloff and Potter 1982:103; Evans 1955:60-64). It is theorized that the first pottery did not arrive in southwestern Virginia earlier than 600 B.C.

with the introduction of Swannanoa ware from the south. Swannanoa is a sand and grit tempered ceramic ware (Holden 1966, Keel 1976).

Projectile points affiliated with this period include Calvert, Fishtail, and Teardrop points that were radiocarbon dated to the period (Gleach 1985, Mounier and Martin 1994). Other points affiliated with the period, but lack carbon-dated contexts, include Potts corner-notched, Vernon, and Claggett, as well as small stemmed and side-notched forms (Gleach 1985, Stephenson 1963, and Dent 1995).

As prehistoric groups increased their interest in the cultivation of plants in many parts of the eastern United States, a more sedentary lifestyle subsequently evolved. This sedentism likely led to a greater emphasis on ceremonialism, especially which related to burial of the dead. In Virginia, mortuary ceremonialism is not seen until about 500 B.C. when stone and earth burial cairns and cairn clusters occur in the Shenandoah Valley. However, this phenomenon did not extend into the Piedmont until much later when a second wave of burial mound ceremonialism occurs around the time of the Middle/Late Woodland transition, and accretional mounds are found in both the Ridge and Valley and Inner Piedmont provinces. However, mounds in the Piedmont appear to have been restricted to the Rivanna and Rapidan drainages.

One archaeological site located within a mile of the project area has an Early Woodland component. With an Early Woodland settlement pattern of concentration and nucleation of populations along rivers and major tributaries for horticultural and defense with far less emphasis on mobility, the likelihood of identifying an Early Woodland site with the project area is low. It is possible, however, that small temporary hunting camps could be found along the upland ridges of the project area.

Middle Woodland (500 B.C. – 900 A.D.)

The Middle Woodland Period is characterized by the increase in sedentary villages along major streams and estuaries as occupations along smaller streams show a marked decrease. It is likely that wild food collection and the cultivation of native plant resources complemented each other during this period as a shift towards reliance on agriculture began. The Middle Woodland diet becomes more complex as people began to exploit nuts, amaranth, and chenopod seeds as well as fish, deer, waterfowl, and turkey. Settlement size ranged from larger villages to smaller hamlets located on fertile soils which became exponentially important for the cultivation of crops such as beans, corn, squash, and tobacco (Gardner 1982).

As settlement size increased so did religious and ritual behavior and stratification and ranking that comes with a complex society. Regional styles and symbolism begin to take shape, and are reflected in ceramic styles and other ideotechnic and sociotechnic artifacts.

The beginning of the Middle Woodland period in Virginia is marked by the introduction of net-impressed ceramics which are found throughout the state (Egloff and Potter 1982). In the Roanoke River valleys, fabric-impressed and cord-marked ceramics, including Vincent ceramics, become increasing common as the Middle Woodland period progresses (McLearen 1992, Daniel and Davis 1996, Eastman 1991). Projectile points affiliated with the Roanoke River region from the period include larger triangular points, and can include Rossville, Calvert, Selby Bay and Fox Creek projectile point forms, as well as many stemmed hafted bifaces (Dent 1995; Potter 1993).

The second half of the Middle Woodland period demonstrates the adoption of rhyolite as a preferred material for the production of hafted bifaces (Dent 1995:237). This raw material is found in the upper reaches of the Potomac River in Maryland and Pennsylvania.

One archaeological site located within a mile of the project area has a Middle Woodland component. With a Middle Woodland settlement pattern of concentration and nucleation of populations along rivers and major tributaries for horticultural and defense with far less emphasis on mobility, the likelihood of identifying a Middle Woodland site with the project area is low. It is possible, however, that small temporary hunting camps could be found along the upland ridges of the project area.

Late Woodland (900 – 1600 A.D.)

The Late Woodland period begins with a greater reliance on agriculture by Native Americans that resulted in a more sedentary lifestyle. Large nucleated villages developed along the rivers due to the availability of highly productive, alluvial soils for intensive gardening. Drawings and journals of early European explorers describing Indian villages indicate that houses were constructed of oval, rectanguloid or circular frameworks of flexible green sapling poles set in the ground, lashed together, and covered with thatch or bark mats.

Although the major villages and population centers would have been located along the fertile bottomlands, smaller camps would have been established further inland to take advantage of seasonally available resources or served specific functions such as hunting and foraging camps, quarries, butchering locations, and re-tooling locations (Hodges et al. 1985:26).

Ceramic types typical of this period and region include Dan River and Radford series wares in addition to Grayson pottery. Smaller triangular projectile points become dominant during this time period with Caraway and Madison point types begin found within Late Woodland contexts in the immediate region of the Roanoke River.

One archaeological site located within a mile of the project area has a Late Woodland component. With a Late Woodland settlement pattern of nucleated and ranked populations along rivers and major tributaries for horticultural and defense with far less emphasis on mobility, the likelihood of identifying a Late Woodland site with the project area is low, It is possible, however, that small temporary hunting camps could be found along the upland ridges of the project area.

Historic Context

The historic context for the project area and its region is divided in the following sections in accordance with VDHR guidelines: Settlement to Society (1607-1750); Colony to Nation (1750-1789); Early National Period (1789-1830); Antebellum Period (1830- 1860); Civil War (1861-1865); Reconstruction and Growth (1865-1917); World War I to World War II (1917-1945); and the New Dominion (1945-present).

Settlement to Society (1607-1750)

The first European explorer believed to have reached this area was Abraham Wood. Wood reached the region in 1654 after crossed the Allegheny Mountains through Wood's Gap, which was since renamed Flower Gap. Within ten years, traders were moving in and around the region with increasing frequency, and had become familiar with the topography and environs. Trade routes with regional Native American tribes had become well established (Kegley 1938).

In 1716, surveyors set out westward and past the Blue ridge Mountains. Winchester was founded in 1732 as a result of this westward push.

> In 1734, Orange County was organized to encompass a large portion of Virginia's western land, including present-day Roanoke County. Further divisions and delineations created West Augusta County in 1738. It was not until the late eighteenth century that the expansive west began to be divided into more appropriately sized counties and territories. Botetourt County, formed in 1769, included much of the present-day Roanoke County's land during its early settlement and growth (Jack and Jacobs 1912 in Klein and Hatch 2016).

As the eighteenth century began, large tracts of land extending through the Shenandoah Valley were being granted by Virginia Council to individuals and groups of investors. With this action, settlers began encroaching into this frontier in significant numbers and ever-increasing frequency. Settlers were often Scots-Irish or Germans who moved into the area from Pennsylvania or Maryland and began small self-sustaining farms (Kegley 1938).

> The earliest settlers to present-day Roanoke County arrived around 1740. Unfortunately, not many accounts exist documenting the early settlement periods of Roanoke County so not much is known in terms of first settlers and their families, though many agree it may have been James McAfee (Jack and Jacobs 1912:11 in Klein and Hatch 2016). German migrants flowed into the western Piedmont and southwestern Virginia after 1790, when people of German ancestry made up 28 percent of Virginia's population. Scots-Irish from the border lands of northern England and Ireland arrived in the backcountry from Pennsylvania to Georgia during the eighteenth and nineteenth centuries (Fisher and Kelly 2000:114–121 in Klein and Hatch 2016). These pioneers clashed heavily with the Native Americans and few European settlers whom already occupied the land (Roanoke County 2015 in Klein and Hatch 2016).

No previously identified cultural resources from this period are located within one mile of the project area. Due to decreasing Native American populations and sparse settlement by European frontiersman, the probability of identifying cultural resources from this period is low.

Colony to Nation (1750-1789)

The increasing English encroachment into new lands brought about discontent with the Native American tribes in Virginia and the French in the Ohio Valley. With the dawn of the French and Indian War in early 1750s, settlers in the frontier region of present-day Roanoke County were in ever-increasing danger.

As a result of the hostilities and threat of attack, Fort Vause was established in 1755 by Captain of Horse Ephraim Vause near Shawsville. Fort Vause was attacked by French, Shawnee, Miami and Ottowa troops in June of 1756 who overran and burned the fort for a decisive victory. Major Andrew Lewis led a relief party to Fort Vause, but did not arrive in time to save the occupants (Stoetzel 2008).

In 1756, under orders from the Council of War in Augusta County, Fort Vause was rebuilt by Captain Peter Hogg under the supervision of Colonel George Washington. During this time, Washington was nearly captured by Shawnee warriors who were traveling northward on the Wilderness Trail (Stoetzel 2008).

Although European populations were increasing during this period, the settlers of this period focused settlement of farms along the flood plains of major rivers such as the Roanoke River. No previously identified cultural resources from this period were located within one mile of the project area. As such, there is a low probability for locating cultural resources from this period within the project area.

Early National Period (1789-1830)

As the peace after the War for Independence ensued and the nineteenth century progressed, the transportation infrastructure of Roanoke County was still insufficient in providing the needed routes to move agricultural and other products to market. Exports from the area were few, due to the need for mere subsistence, but included hemp, flour, horses, and cattle (Haynes et al. 1989). “The establishment of a road system also provided the catalyst for sustaining the developing industrial sector within the county. Along with agricultural activities, mining became an economic mainstay in the area” (Klein and Hatch 2016).

A map from 1821 shows the project are in very little detail (Figure 3). This map does, however, show the project area before the railroad was constructed. There is one previously identified cultural resources within one mile of the project area that dates to this time period, the Clark log house, dating to 1800. As such, there is a low probability of locating cultural resources from this period within the project area.

Antebellum Period (1830-1861)

In 1838 Roanoke County was formed from Botetourt County and Montgomery County. Its name “Roanoke” was a derivative of the Native American word for shell beads, “rawrenock“ (The Roanoke Valley Convention & Visitors Bureau 2015). “The town of Salem, founded in 1802 along the Great Road extending westward through the counties and incorporated in 1836, was appointed county seat upon Roanoke’s establishment” (Roanoke County 2015 in Klein and Hatch 2016).

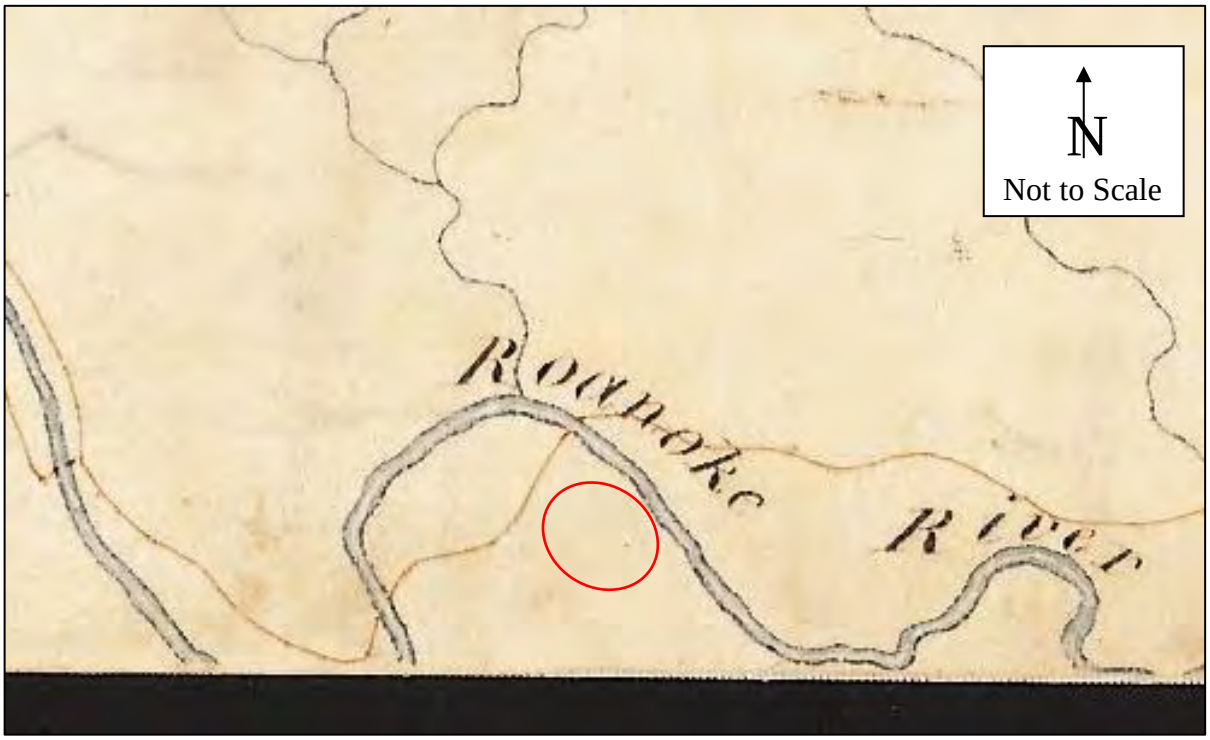

Figure 3. Detail of *Map of Montgomery County, Va.* Depicting the Project Area Vicinity (Wood 1821).

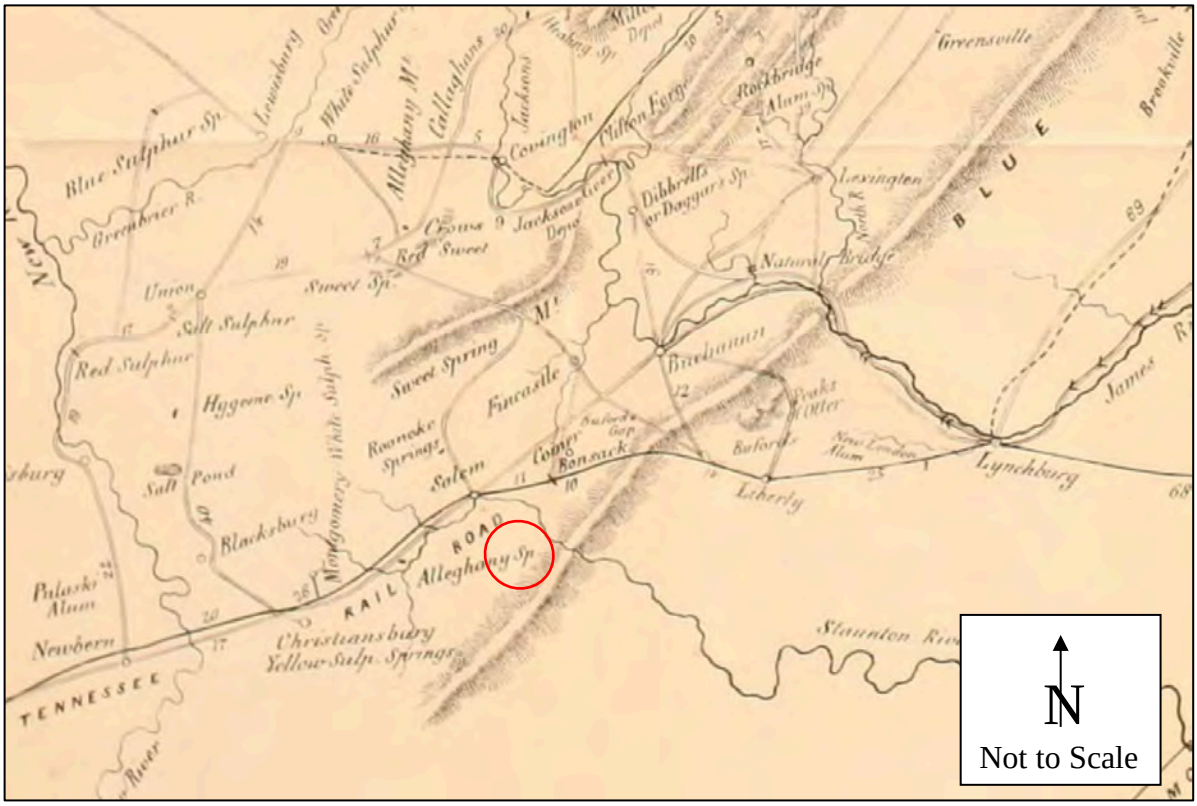

Figure 4. Detail of Map within *The Virginia Springs and the Springs of the South and West* (Moorman 1859).

Improvements to transportation routes in the nineteenth century and the development of the railroads provided an economic stimulus to the region. The construction of rail lines would have a tremendous economic and social effect on the region, revolutionizing the export of farm produce (Hennessy 1989).

In addition, the departure of numerous farming families for the West had opened a considerable amount of land to outside purchase at low cost. With the advantage of new transportation routes and proximity to the growing markets, this region proved attractive to northern farmers and recent immigrants (Netherton et al. 1978: 251-59). “The Virginia and Tennessee Railroad arrived in 1852 followed by a decision to locate the Norfolk and Western Railroad headquarters in the county” (Roanoke County 2015 in Klein and Hatch 2016).

> However, the completion of railroad connections to markets to the east, particularly Richmond, also increased the value of slave ownership in the region. The Virginia and Tennessee Railroad, Noe (1994:43) argues, "hastened the development of capitalistic, slave-based, cash crop agriculture in Southwest Virginia." Farmers shifted to the production of market crops, notably wheat. Enslaved laborers worked not only on farms, but on the railroad and in the region’s industries (Noe 1994:82 in Klein and Hatch 2016)

A map from this period shows the project in little detail (Figure 4). There are four previously identified cultural resources within one mile of the project area that date to this time period. As such, there is a moderate probability for sites from this era to exist within the project area.

Civil War (1861-1865)

The issues of slavery and states’ rights had precipitated armed conflict, and on April 17, 1861, Virginia seceded from the Union. Although no major battles were fought in region of the project area, it was of strategic importance as a supply route and path throughout southwestern Virginia.

> Company I, 28th Regiment of the Confederacy was also known as the “Roanoke Grays” and was organized in Lynchburg, Virginia. The “Dixie Grays” were organized in Salem as Company E, 42nd Regiment. The companies both participated in a number of battles throughout the entirety of the Civil War (Jack and Jacobs 1912 in Klein and Hatch 2016).

In May of 1864 during the Battle of Cloyd’s Mountain, Blacksburg and Christiansburg were temporarily occupied by Federal troops but the towns were abandoned after a couple of days as the Union forces pressed north into the Valley. Nearly a year later in April of 1865, Union cavalry returned to Christiansburg and burned the railway station and destroyed the railroad tracks in town. Roanoke County would suffer a similar scouring of the landscape during the hostilities.

Two historic maps from this time period show the project area in some detail (Figures 5 and 6).

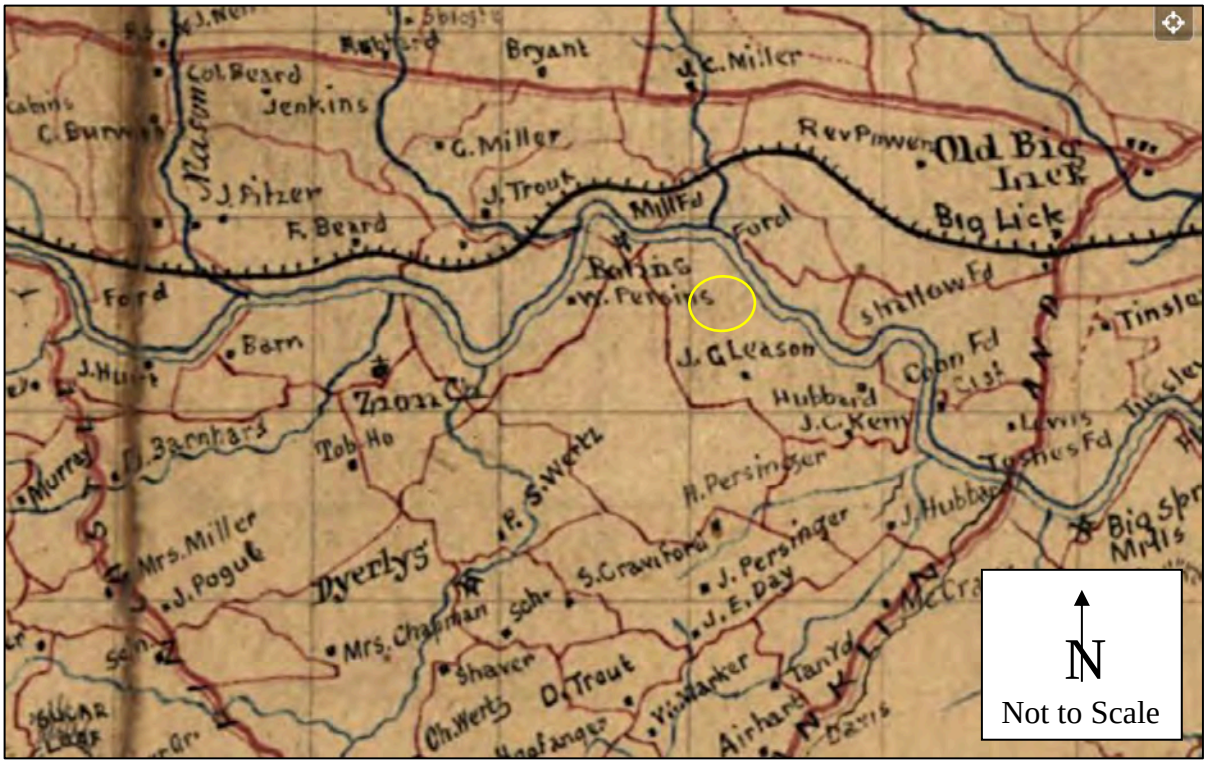

Figure 5. Detail of *Roanoke County, Va.* Depicting the Project Area Vicinity (Anon. 1865).

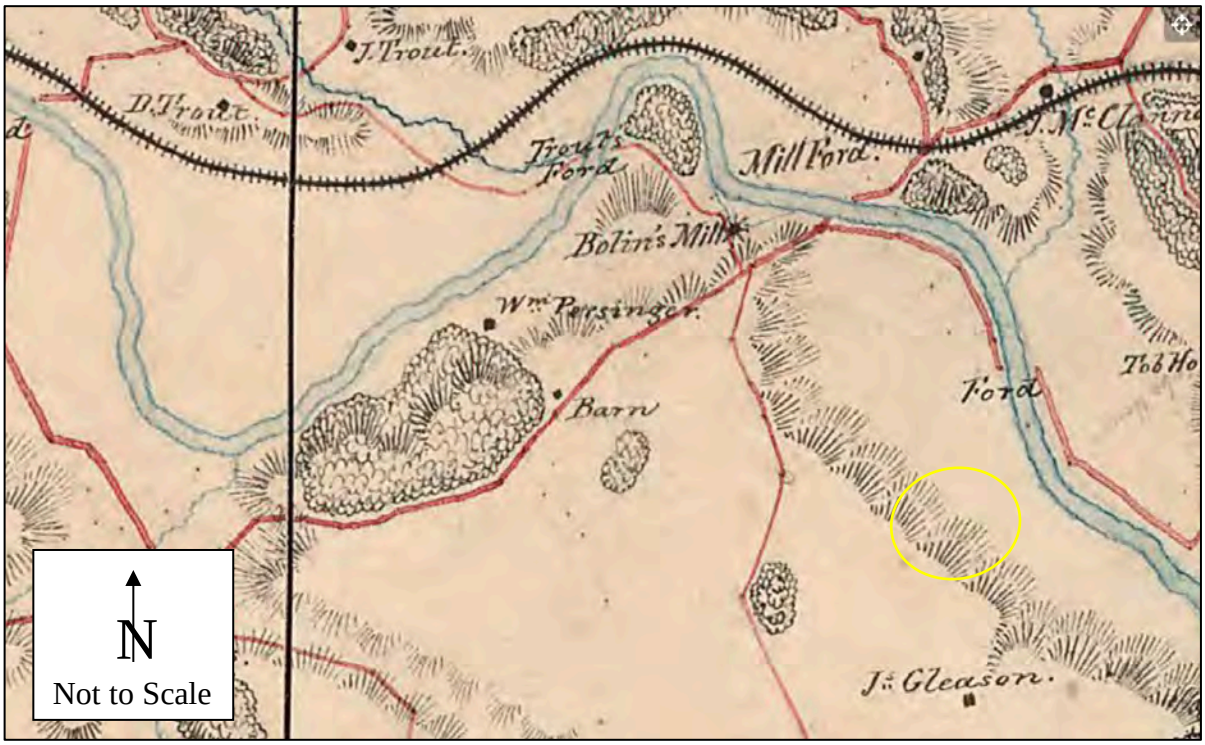

Figure 6. Detail of *Map of Roanoke County: Southern Section*, Virginia Depicting the Project Area Vicinity (Gilmer 1864).

There are no previously identified cultural resources within one mile of the project area that date specifically to the Civil War period and no battles or skirmishes are known to have taken place within the project area. As such, there is a low probability of finding cultural resources with a temporal affiliation specific to the military actions of the Civil War within the project area. However, it is possible that domestic occupation within the project area extended from the Antebellum Period through the Civil War.

Reconstruction and Growth (1865-1917)

Virginia was a principal location of the Civil War and the devastation could be felt politically, socially, and economically. The combined loss of manpower and draft animals, the neglect of agricultural land, and the emancipation of the slave population had a detrimental effect on the region's economic and social landscape in the postwar era. Over the following years, property values plummeted: land that had sold for $10 per acre before the war now fetched only $1-3. In fact, the real estate market was so depressed that during their 1869-70 session the General Assembly enacted a law prohibiting the sale of land for less than 75 percent of its assessed value (Kaplan 1993: 153-56).

Many were desperate for an economic solution following the war, and many began to sell the timber on their land for cash or left the county for jobs in Washington or elsewhere. Those who continued to farm joined the "Grange," or "Patrons of Husbandry," a fraternal order established in 1867 and dedicated to helping farmers learn new agricultural methods. In 1876 the Patrons of Husbandry claimed 18,000 members in Virginia in 685 local chapters. Though the Grange had lost most of its power by the 1890s, it was replaced by similar organizations, including the Farmers' Assembly and Farmers' Alliance, and the annual Farmers' Institutes (Manarin and Dowdey 1984: 341-44).

> Roanoke County entered the twentieth century with a population of nearly 20,000 and at a time of great prosperity (Jack and Jacobs 1912). With a growing population came the advantages of larger markets, better transportation ways, and more income for the county. More railways were constructed and improvements to highways brought about easier shipment processes and a steady flow of visitors and consumers. The rapidly growing City of Roanoke created a flourishing suburban population in Roanoke County (Klein and Hatch 2016).

A historic map from 1890 depicts the project area in little detail, but does depict topography and major roads (Figure 7). Fifteen previously identified cultural resources are located within a one-mile radius of the project area. There is a high potential for sites from this historic period to be located within the project area. Favorable settlement and agricultural conditions had not changed in the region after the Civil War, and the project area would have remained a viable place for domestic and agricultural pursuits in an expanding post-war economy.

World War I to World War II (1917-1945)

After World War I, the faltering postwar economy caused agricultural prices to fall, and farmers could no longer afford to produce their crops. It was at this time that the government was shifting its focus towards the establishment of urban centers, which left little support for the agricultural economy.

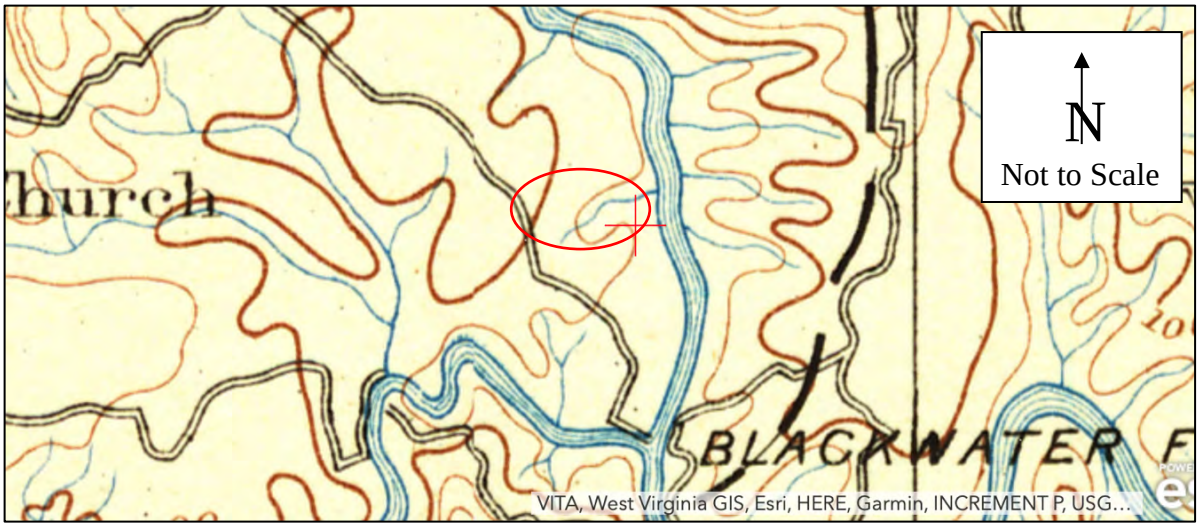

Figure 7. Detail of *Bedford, Virginia* Depicting the Project Area Vicinity (USGS 1890).

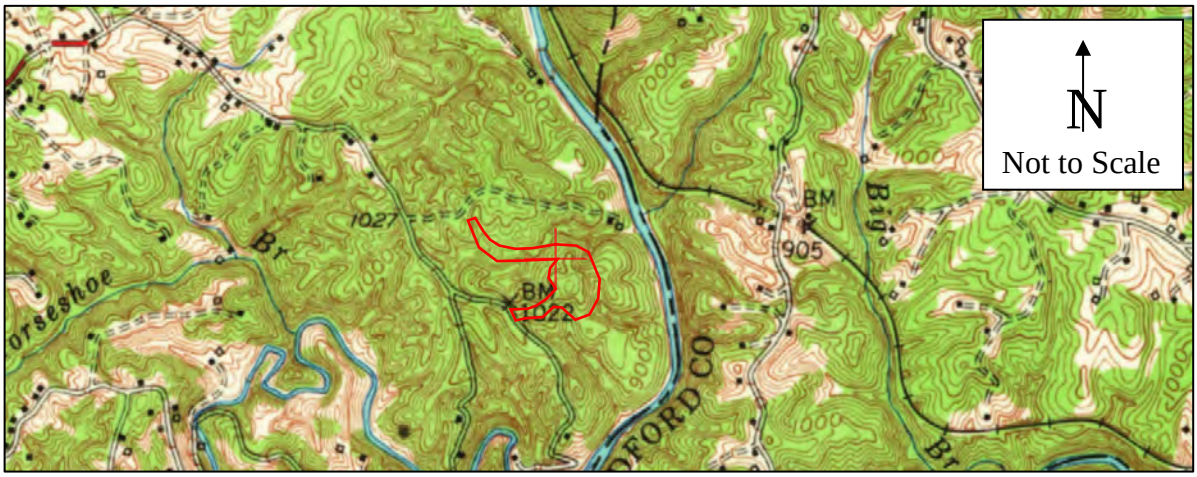

Figure 8. Detail of *Boones Mill, Virginia* USGS Quadrangle Depicting the Project Area Vicinity (USGS 1951).

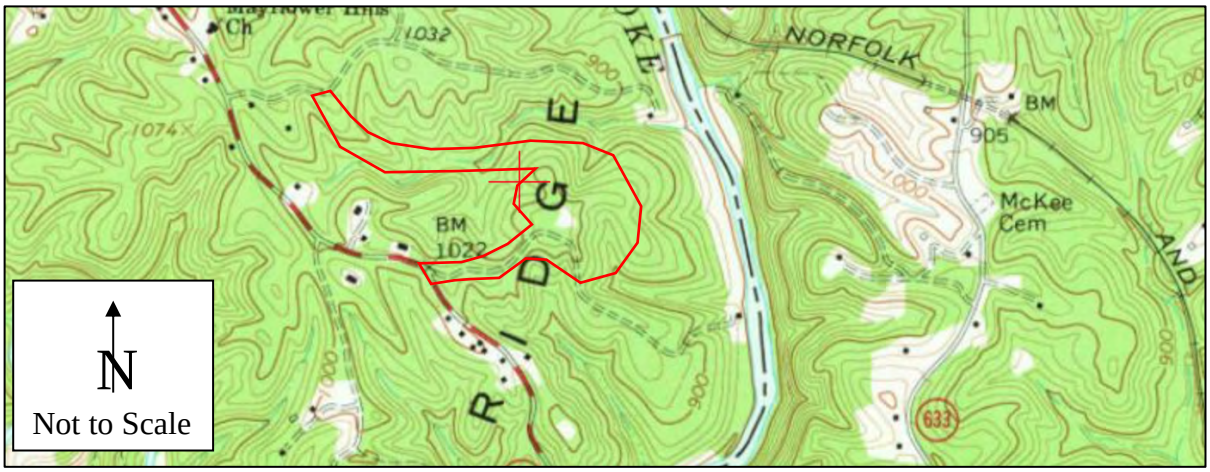

Figure 9. Detail of *Hardy, Virginia* USGS Quadrangle Depicting the Project Area Vicinity (USGS 1961).

The Blue Ridge Parkway would ultimately have a large impact on the region. According to NRHP nomination form, the Blue Ridge Parkway was

> …conceived during the Great Depression - though the idea had some germination earlier - and seen as a scenic tourist link between two National Parks, Shenandoah in Virginia and Great Smoky Mountains in North Carolina and Tennessee. It was implemented out of a need to put people to work in 1935 during the Depression, and the Civilian Conservation Corp (CCC) provided the labor (VCRIS 2018).
>
> Planning and landscape design for the Parkway began Dec. 26, 1933 and construction began in Sept. 1935. The Civilian Conservation Corp began work on several sections of the Parkway simultaneously, with sections being given priority where employment needs were greatest. Contractors were mandated to hire local people whenever possible. Four CCC camps were established at various points along the route to perform the work. The CCC camps were managed in military style with workers being housed in barracks, marched in formation and taking turns with kitchen duties. Almost all of the work on the Parkway, including the rigorous chore of tunnel digging, was done by hand and with very little machinery (VCRIS 2018).
>
> Work continued steadily until the start of WWII by which time approximately 2/3 of the Parkway was complete. In 1942, the CCC was closed out and work on the remaining sections of the Parkway was sporadic. The work was not completely finished until 1987 when the Linn Cove Viaduct in North Carolina was completed (VCRIS 2018).

Eight previously identified cultural resources are identified within one mile of the project area. The probability of finding sites associated with this time period within the project area is high; however, the likelihood of their being eligible for the NRHP is low.

The New Dominion (1945-Present)

Between 1957 and 1971, Interstate 81 was constructed in Virginia as suburban neighborhoods and transportation routes within Virginia and the nation were being constructed and improved. In addition, construction on the Blued Ridge Parkway was performed in the region of the project area in the 1960s.

Explore Park opened to the public on July 2, 1994 after the River Foundation transferred ownership to the Virginia Recreational Facilities Authority (VRFA).

> Explore Park is a 1,100-acre passive recreation facility operated by the Roanoke County Department of Parks, Recreation and Tourism. The park is located at milepost 115 on the Blue Ridge Parkway in Roanoke County, Virginia, with 700 acres of the park lying in Roanoke County and 400 acres in adjacent Bedford County (VRFA 2010).

Two maps from this period show the project area in good detail (Figures 8 and 9). Only an unimproved road is marked within the project area in 1961 (Figure 9). The probability of finding unrecorded sites associated with this time period within the project area is high; however, the likelihood of their being eligible for the NRHP is low.

RESEARCH DESIGN

The Phase I cultural resource survey was designed to locate and identify all archaeological sites within the proposed mountain bike trails and parking lot, as well as to document any standing structures over 50 years of age. All archaeological resources and historic architectural resources documented within the area of proposed ground disturbance were reviewed for potential significance for listing on the National Register of Historic Places.

A cultural resource is gauged to be significant if it meets at least one of four National Register criteria:

A. Associated with significant events in the broad patterns of national history.

B. Associated with the lives of persons significant in our past.

C. Representative of a type, period, or method of construction, or the work of a master.

D. Capable of yielding important information about the past.

Criterion D typically applies to archaeological sites. In order to be capable of yielding important information about the past, generally a site must possess artifacts, soil strata, structural remains, or other cultural features that make it possible to test historical hypotheses, corroborate and amplify currently available information, or reconstruct the sequence of the local archaeological record.

Background Research

Background research was conducted at the Virginia Department of Historic Resources (VDHR) and the Library of Virginia in Richmond, Virginia. Documentary and cartographic research on the history of the project area was conducted using the Virginia Department of Historic Resources, the Library of Virginia, the Virginia Historical Society, and the Library of Congress.

Field Methods

The Phase I archaeological fieldwork will entail a combination of visual inspection and shovel tests in an effort to identify the extent of surface and subsurface archaeological resources.

Per the Virginia Department of Historic Resources (VDHR) *Guidelines for Conducting Historic Resources Survey in Virginia*, the fieldwork will involve the placement of circular shovel tests at 50-foot (15 meter) intervals within the project area, regardless of visibility, with transects 50 feet (15 meters) apart. Surface inspection and collection will be undertaken within any portions of the project area where surface visibility warrants such investigation. The soil excavated from all shovel tests will be passed through 1/4-inch mesh screen and all shovel tests will be at least 15 inches (38 cm.) in diameter.

For any archaeological resources identified during the survey, photographs will be taken of the general vicinity and of any visible features. A field map will be prepared showing site limits, feature locations, permanent landmarks, topographic and vegetational

variation, sources of disturbance, and all surface and subsurface investigations. Sufficient information will be included on each map to permit easy relocation of the site. Notes will be taken on surface and vegetational conditions, soil characteristics, dimensions and construction of features evident, and the amount and distribution of cultural materials present.

Laboratory Methods

All archaeological data and specimens collected during the Phase I survey were transported to the laboratory at Darby O'Donnell, LLC in Henrico, Virginia for processing and analysis. Artifacts recovered from the field were organized by their field provenance, washed according to their type and stability, and placed on a drying rack. Artifacts were then re-bagged by provenance and type. After being cleaned, bagged, and recorded, the entire artifact collection was then cataloged, analyzed, and formally recorded into a database system.

Analysis of prehistoric lithic artifacts is aided by reference works such as *Stone Age Spear and Arrow Points of Mid-continental and Eastern United States* (Noel D. Justice 1995). The Virginia Department of Historic Resources on-line lithic and point database, and A Ceramic Study of Virginia Archaeology (Clifford Evans 1955) was referenced due the specificity of Chickahominy River Native American material culture. Analysis of historic artifacts is aided by reference works such as *The Parks Canada Glass Glossary* (Jones and Sullivan 1989), the *Guide to Artifacts of Colonial America* (Noel Hume 1969), and the *Colonial Williamsburg Foundation Laboratory Manual* (Pittman et al. 1987).

All materials generated by this project were curated according to the standards outlined in 36 CFR Part 79 ("Curation of Federally-Owned and Administered Archaeological Collections"). All processed artifacts are prepared for permanent storage and are eventually returned to the property owner.

Report Preparation

The results of the background and archival research, fieldwork, and laboratory analysis are combined and summarized in this report. The report describes the results of each of these aspects of the Phase I survey research and includes all selected historic maps, photographs, and renderings. The Phase I identification report was conducted with regard to the Advisory Council on Historic Preservation's (ACHP 2001) 36 CFR Part 800: Protection of Historic Properties; the Department of Interior's 36 CFR 60: National Register of Historic Places (NHRP) (United States Department of the Interior [USDI] 1981); VDHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (VDHR 2017); and the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (USDI 1983).

Previously Identified Cultural Resources within 1.6 km (1.0 mile)

The background research for the Phase I cultural resource survey also included a review of the VDHR archives and data collected from the VDHR VCRIS System to compile a map and summary of all architectural resources and archaeological sites within 1.6 kilometers (one mile) of the project area (Figure 10, Tables 2 and 3). The results of this research follow.

No previously identified archaeological sites were identified within the proposed mountain bike trails and parking lot; however, 22 sites were identified within one mile of the project area (Figure 10, Table 2). Twelve of these sites were prehistoric or contained prehistoric components. Nine of these sites were historic post-contact sites that date to the Antebellum (1830-1860) at the earliest. Only one of these sites, 44RN0343, had been evaluated for listing on the NRHP. The iron mine, 44RN0343, was found "not eligible for listing in the NRHP" by VDHR.

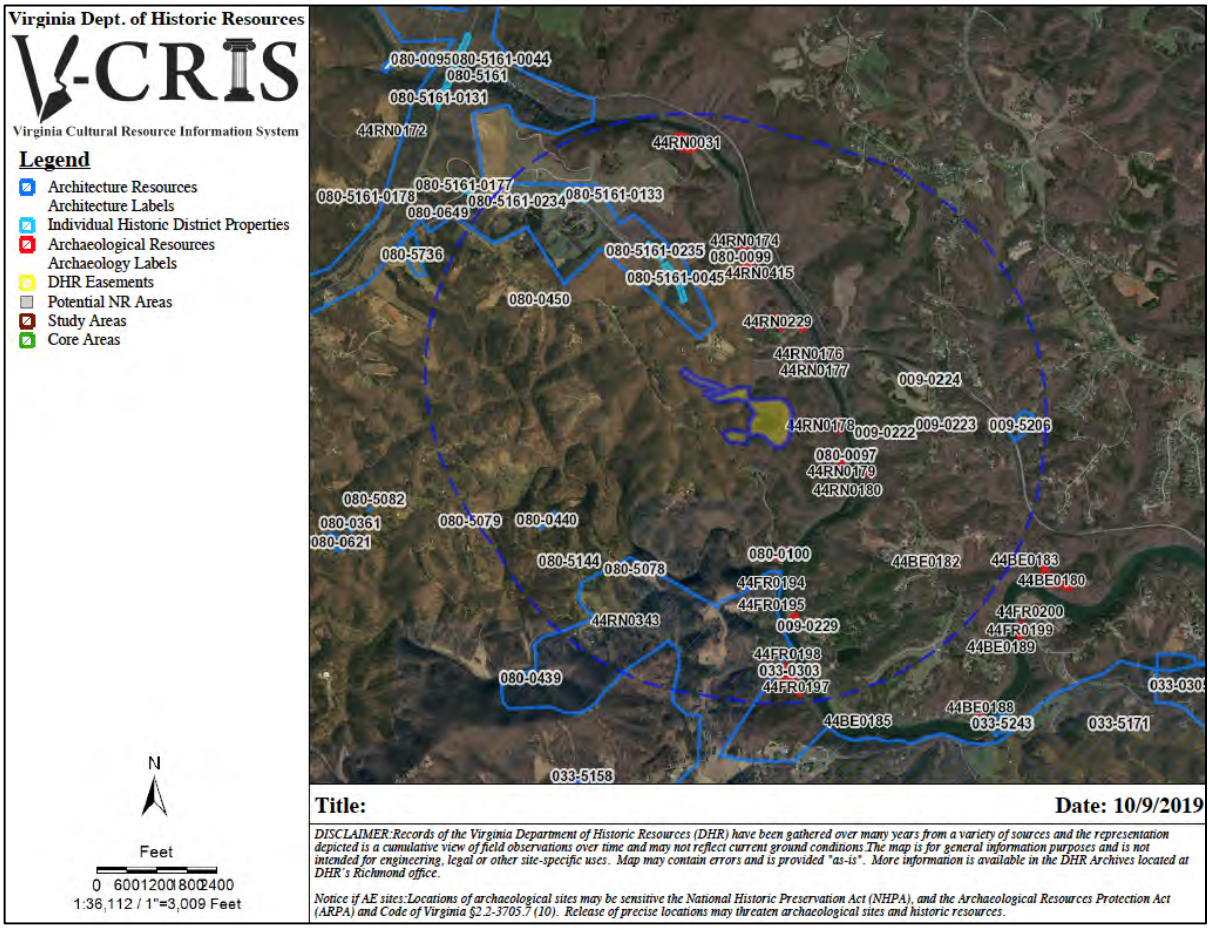

Figure 10. Aerial Photograph of the Project Area Depicting the Previously Identified Archaeological Sites and Architectural Resources within 1.6 kilometers/One mile (Blue Dotted Line) (VCRIS 2019).

No previously identified architectural resources are located within the proposed mountain bike trails and parking lot, however fifteen are located within one mile (Figure 10, Table 3). Eleven of these resources are single dwelling, one is a cemetery, two are historic districts, and one is unclassified. Four of these resources have been evaluated for listing on the NRHP. The Blue Ridge Parkway Historic District (080-5161) is potentially eligible for listing on the NRHP. The remaining three resources were found to "not eligible for listing in the NRHP" (VCRIS 2019). These three resources are the Siner house (009-5206) from 1840, the Cooper Cove Rural Historic District (033-5171), and the Cooper family cemetery (080-5144) from 1900.

Table 2. Previously Recorded Archaeological Sites Within 1-Mile (1.6-Kilometers) of the Project Area

Site #	Period	Site Type
44BE0177	20th Century (1900 - 1999)	Distillery
44BE0181	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	null
44BE0182	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	null
44BE0184	Early Woodland (1200 B.C. - 299 A.D.)	Hamlet
44FR0194	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	null
44FR0195	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	null
44FR0196	19th Century (1800 - 1899), 20th Century (1900 - 1999)	Dwelling, single
44FR0197	Middle Woodland (300 - 999 A.D.), Late Woodland (1000 - 1606)	Hamlet
44FR0198	Woodland (1200 B.C. - 1606 A.D.)	null
44RN0031	null	null
44RN0174	Pre-Contact, Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916)	Artifact scatter
44RN0175	19th Century: 2nd half (1850 - 1899)	null
44RN0176	null	Other
44RN0177	Early Archaic (8500 - 6501 B.C.), Late Archaic (3000 - 1201 B.C.), 19th Century: 2nd half (1850 - 1899), 20th Century: 1st half (1900 - 1949)	null
44RN0178	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	null
44RN0179	Prehistoric/Unknown (15000 B.C. - 1606 A.D.), 19th Century (1800 - 1899), 20th Century: 1st half (1900 - 1949)	null
44RN0180	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	null
44RN0181	19th Century: 2nd half (1850 - 1899), 20th Century: 1st half (1900 - 1949)	Other
44RN0228	19th Century: 4th quarter (1875 - 1899)	Dwelling, single
44RN0229	Paleo-Indian (15000 - 8501 B.C.)	Camp, temporary
44RN0343	Historic/Unknown	Mine, iron
44RN0415	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	

Table 3. Previously Recorded Architectural Resources Within 1-Mile (1.6-Kilometers) of the Project Area			
VDHR #	Resource Name	Resource Type	Date
009-0222	Bass House (Current), Ikenberry House (Historic)	Single Dwelling	1856
009-0223	Dwelling, Route 633 (Function/Location)	Single Dwelling	1870
009-0224	Jenkins House (Historic)	Single Dwelling	1921
009-0229	Clark Log House (Current)	Single Dwelling	1800
009-5206	Siner House (Historic), Thomas Sowards House (Current)	Single Dwelling	1840
033-0303	Echols Log House (Historic/Current)	Single Dwelling	1890
033-5171	Cooper Cove Rural Historic District (Descriptive)	Historic District	No Date
080-0097	Log Cabin (Historic/Current)	Single Dwelling	1900
080-0099	Cabin, Rutrough Road (Route 618) (Function/Location)	Single Dwelling	1900
080-0100	Dickerson House (Current)	Single Dwelling	1900
080-0440	House, 4670 Brookridge Road (Function/Location)	Single Dwelling	1870
080-0450	House, 3647 Rutrough Rd. (Function/Location)	Single Dwelling	1900
080-5078	null	Null	No Date
080-5144	Cooper Family Cemetery (Descriptive)	Cemetery	1900
080-5161	Blue Ridge Parkway Historic District (Historic/Current)	Historic District	1935

Previous Investigations within the Project Area

One previous cultural resource investigation has taken place within a portion of the project area (Figure 11).

In 1989, A Phase I cultural resource survey was performed on proposed courses of the Roanoke River Parkway. This linear survey crossed the current project area on occasion. In particular, the 1989 Phase I survey included a route that paralleled Rutrough Rd. No resources were identified in this area. Details of this survey are reported on in:

Haynes, John, Eric M. Hediger, and Dr. Savatore J. Bellomo
1989 *Roanoke River Parkway Environmental Impact Study, Vinton to Hardy Ford, Virginia: Technical Memorandum No. 7, Cultural Resources*. Prepared for U.S. Department of the Interior, National Park Service. Prepared by Bellomo-McGee, Inc. in association with WAPORA, Inc. VDHR #1991-1387.

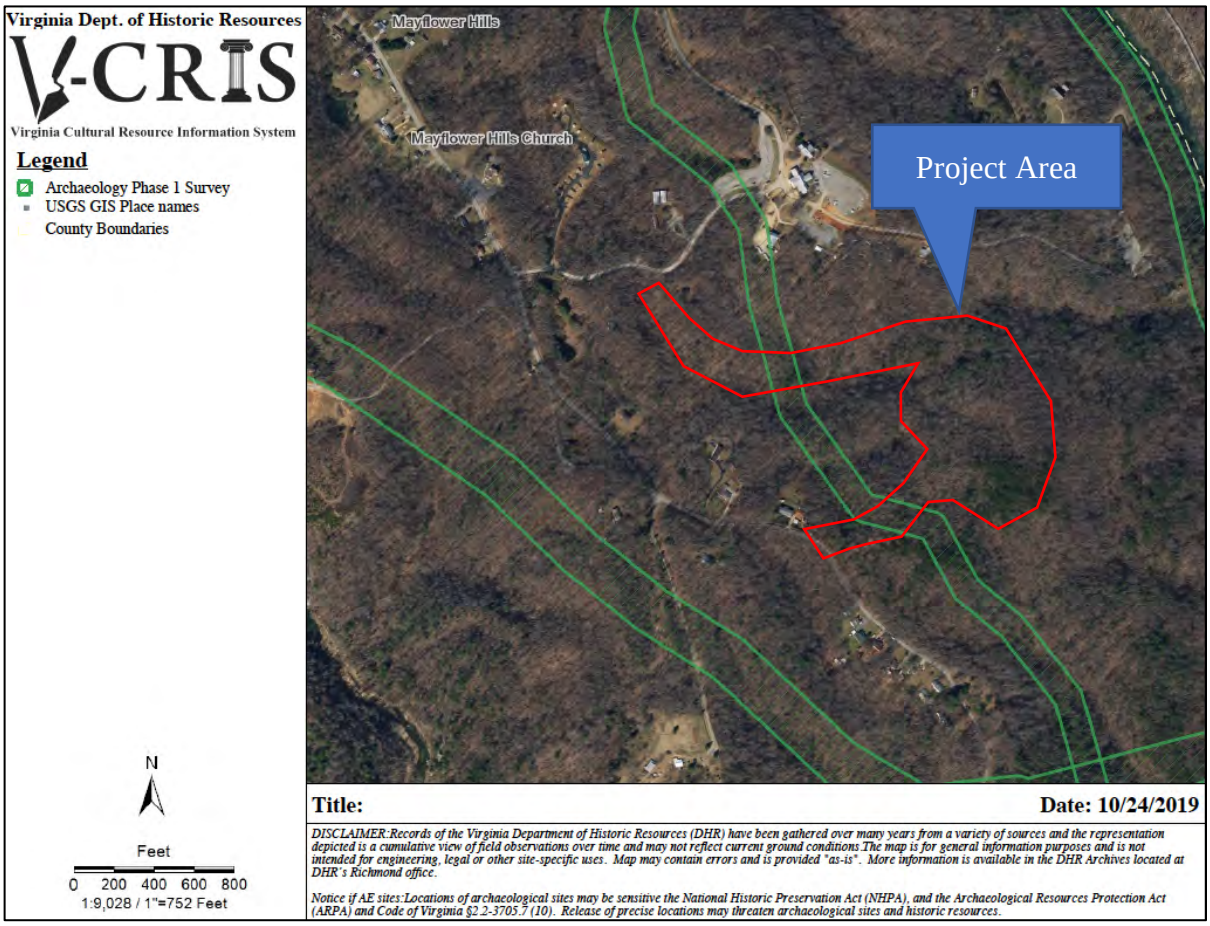

Figure 11. Phase I Cultural Resource Surveys Performed within the Vicinity of the Project Area (VCRIS 2019).

Expected Results of Survey

Numerous prehistoric sites ranging in size were identified within one mile of the project area so the probability of identifying unrecorded sites is high. However, Native American sites within the project are would likely be associated with temporary or season hunting camps due to the comparably dramatic landscape of the upland ridges of the project area contrasted with those landforms near the Roanoke River which would have a provided a far better landscape for extended occupation with easy and abundant access to fresh water, fish, and game.

In regard to historic resources, the project area is located adjacent to an existing road and demonstrates much disturbance. Although there is a low probability of seventeenth, eighteenth, and nineteenth century historic resources within the project area, there is a higher probability of identifying historic archaeological and architectural resources dating from the late nineteenth century to the present. However, the likelihood of their being eligible for listing on the NRHP is low.

RESULTS

Darby O'Donnell, LLC has completed a Phase I cultural resource identification survey of proposed mountain bike trails and an associated parking lot at Explore Park in Roanoke County, Virginia. The bicycle trails take circuitous paths connecting at Chestnut Ridge and a proposed parking lot at Rutrough Rd. (Figure 12). The proposed bike trails account for approximately 10,000 linear feet and the proposed parking lot is 0.5 acres. This project was conducted for Balzer and Associates, Inc. in coordination with Roanoke County Parks, Recreation and Tourism

The Phase I identification survey and reporting was conducted with regard to the Advisory Council on Historic Preservation's (ACHP 2001) 36 CFR Part 800: Protection of Historic Properties; the Department of Interior's 36 CFR 60: National Register of Historic Places (NHRP) (United States Department of the Interior [USDI] 1981); VDHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (VDHR 2017); and the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (USDI 1983).

The project area was surveyed using a combination of visual surface inspection and systematic excavation of shovel tests (Figure 12). No architectural resources were identified within the project area. However, the Phase I survey encountered two unrecorded archaeological sites.

Site 44RN0422: Late Archaic (3,000 – 1,200 B.C.) Temporary Camp

Site 44RN0422 is a temporary camp that dates to the Late Archaic (3,000-1,200 B.C.) period. It is located along Trail 1 at coordinate T1-11 in western section of the project area approximately 400 ft. southeast of Chestnut Ridge Rd. (Figure 12, Plate 3).

The site measures 25 ft. x 50 ft. and extends along a narrow ridgeline covering 0.20 acres. It consists of three positive shovel tests. It is located on a narrow ridgeline 200 ft. south and north of eastern flowing tributaries of the Roanoke River.

Site 44RN0422 is located on soils associated with Hayesville fine sandy loam. A typical soil profile was recorded from shovel test T1-11 (See Figure 12). Stratum I consisted of a light brown (7.5YR6/4) sandy loam that extended to 0.4 ft. that sealed a reddish yellow (7.5YR6/8) sandy clay subsoil. Soils within Site 44RN0422 were severely deflated from erosion associated with the narrow ridgeline and extreme slope to the north and south of the site.

A total of four artifacts were recovered from the shovel tests at Site 44RN0422 (Plate 13, Appendix A). The only diagnostic artifact was a base fragment of a quartz Savannah River projectile point (2,500-1,200 B.C.). Non-diagnostic artifacts included quartz secondary flakes (n=2), and a quartzite scraper tool (n=1).

Site 44RN0422 dates to the Late Archaic (3,000-1,200 B.C.) period, and was likely a temporary hunting camp.

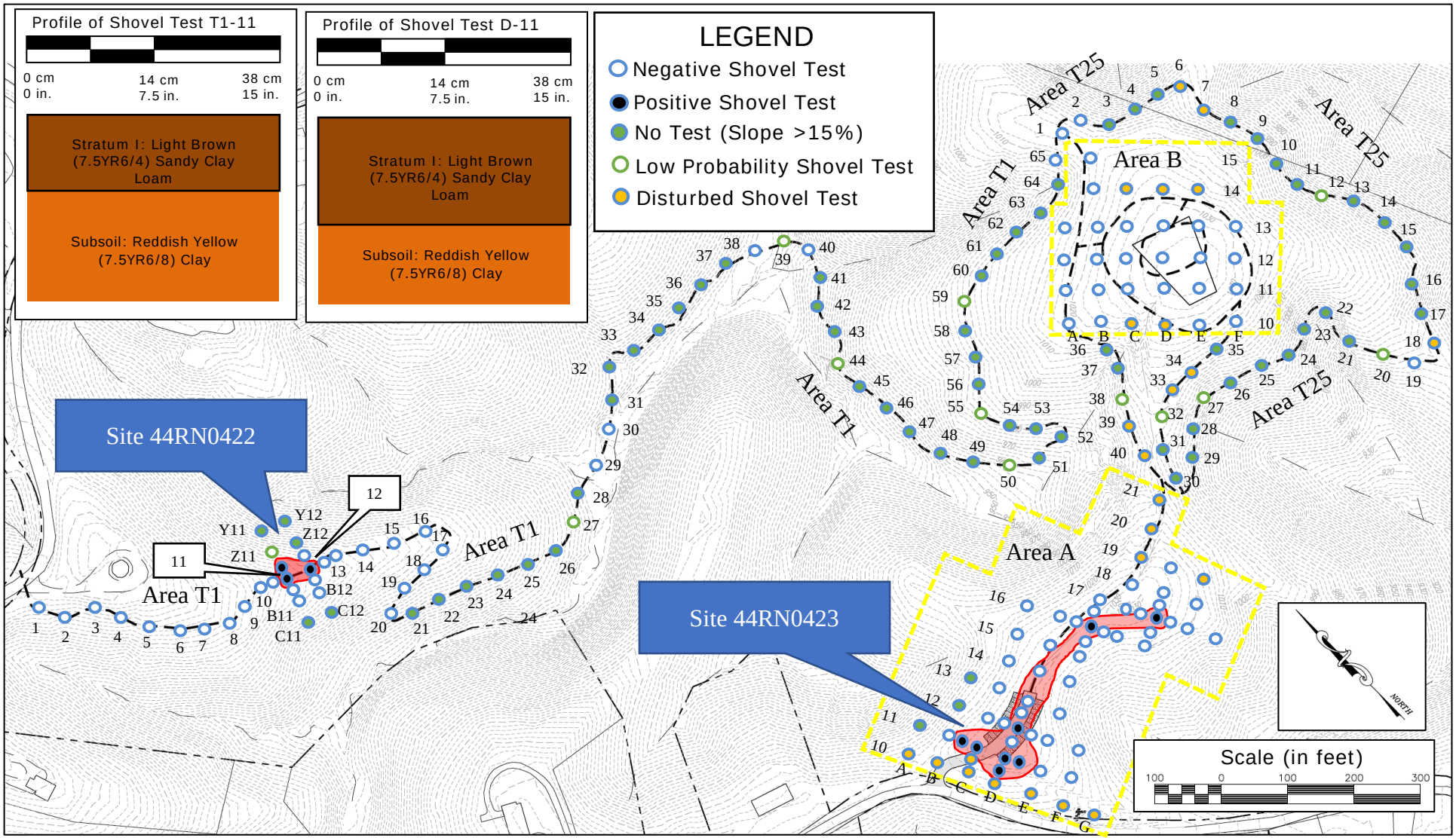

Figure 12. Base Map of Testing within the Project Area.

Plate 3. View of Site 44RN0422, Facing East.

Plate 4. Complete Collection of Artifacts from Site 44RN0422; Including Quartzite Scraper, Secondary Quartz Flakes, and the Base of a Savannah River Projectile Point (2,500-1,200 B.C.).

Site 44RN0423: Late Archaic (3,000 – 1,200 B.C.) Temporary Camp and Lithic Procurement Site Overlain by Late 20th Century Trash Scatter

Site 44RN0423 is a temporary camp and lithic procurement site that dates to the Late Archaic (3,000-1,200 B.C.) period. It is located immediately north of Rutrough Rd. and extends 400 ft. east along narrow ridgeline in Area 2 (Figure 12, Plates 5 and 6).

The site measures 400ft. x 75 ft. and extends along a narrow ridgeline covering 0.50 acres. It consists of eight positive shovel tests. It is located on a ridgeline 200 ft. south and north of the heads of two tributaries which ultimately flow into the Roanoke River.

The site has been severely impacted by a dirt road which appears on a map from 1961 and leads to a structure outside the project area along the Roanoke River (Figure 13). The dirt road appears to have been used regularly in the late twentieth century and has been bulldozed clear numerous times in the past which has heavily impacted the integrity of the archaeological site (See Plates 5 and 6). In addition, late twentieth century refuse is ubiquitous throughout Site 44RN0423 and covers much of edge of the ridgeline along either side of the road (Plate 7). The late 20th century artifacts were noted, but not collected.

Site 44RN0423 is located on soils associated with Hayesville fine sandy loam. A typical soil profile was recorded from shovel test D-11 in Area 2 (See Figure 12). The soil matrix on the western extreme of Site 44RN0423 contains naturally occurring quartz cobbles of low to middling quality. Stratum I consisted of a light brown (7.5YR6/4) sandy loam that extended to 0.6 ft. that sealed a reddish yellow (7.5YR6/8) sandy clay subsoil that contained some larger quartz cobble inclusions of a low to middling quality. A majority of the soils within Site 44RN0423 were disturbed by the bull-dozed road that passes through the site and associated erosion along the ridgeline.

A total of 30 Native American artifacts were recovered from the shovel tests and surface finds at Site 44RN0423 (Plate 8, Appendix A). The only diagnostic artifact was a base fragment of a quartz Lamoka projectile point (3,500-2,500 B.C.). Non-diagnostic artifacts included quartz primary flakes (n=2), secondary quartz flakes (n=18), secondary quartzite flakes (n=1), secondary rhyolite flakes (n=1), tertiary quartz flakes (n=2), and a prepared quartz core fragment (n=1). Non-diagnostic lithic tools included unidentifiable quartz tools/points (n=3) and an incomplete stage 1 biface (n=1).

Site 44RN0423 dates to the Late Archaic (3,000-1,200 B.C.) period, and was likely a temporary camp. This camp may have been used seasonally or temporarily to take advantage seasonal game and/or access to the quartz cobbles found in the soil matrix.

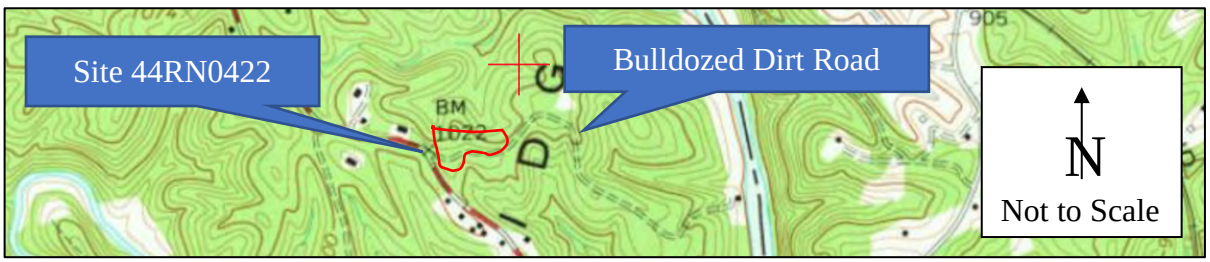

Figure 13.Detail of *Hardy, Virginia* USGS Quadrangle Depicting the Project Area Vicinity and Site 44RN0423 (USGS 1961).

Plate 5 View of Western Section of Site 44RN0423, Facing East.

Plate 6. View of Eastern Section of Site 44RN0423, Facing Southeast.

Plate 7. View of Late 20th Century Modern Refuse Overlaying Site 44RN0423.

Plate 8. View of Select Artifacts from Site 44RN0423 Including a Quartzite Secondary Flake, Quartz Secondary Flakes, the Fragment of a Prepared Quartz Core, a Unidentifiable Biface Fragment, and the Base Fragment of a Lamoka Projectile Point (3,500-2,500 B.C.).

CONCLUSIONS AND RECOMMENDATIONS

Darby O'Donnell, LLC has completed a Phase I cultural resource identification survey of proposed mountain bike trails and an associated parking lot at Explore Park in Roanoke County, Virginia. The bicycle trails take circuitous paths connecting at Chestnut Ridge and a proposed parking lot at Rutrough Rd.

The Phase I survey of the proposed bicycle trails and associated parking lot identified two archaeological sites within the project area.

Site 44RN0422: Late Archaic (3,000-1,200 B.C.) Temporary Camp
This site represents a prehistoric temporary camp site dating to the Late Archaic (3,000-1,200 B.C.) period. The Phase I survey defined Site 44RN0422 through three shovel tests positive for cultural material. Site integrity was impacted by erosion along the crest of the ridge line. Due to the erosion of soils, paucity of artifacts, and the limited research potential in general, *Site 44RN0422 is recommended as not eligible for listing in the National Register of Historic Places under Criteria D. Criteria A-C are considered not applicable. No further work is recommended for this site.*

Site 44RN0423: Late Archaic (3,000-1,200 B.C.) Temporary Camp and Lithic Procurement Site overlain by a Late 20th Century Trash Scatter
This site represents a prehistoric temporary camp and lithic procurement site dating to the Late Archaic (3,000-1,200 B.C.) period overlain by a late 20th century trash scatter. The Phase I survey defined Site 44RN0423 through eight shovel tests positive for Native American cultural material. Site integrity was severely impacted by erosion of the ridge line and the construction of a dirt road that was maintained by bull-dozing. Due to the site impacts and the limited research potential in general, *Site 44RN0423 is recommended as not eligible for listing in the National Register of Historic Places under Criteria D. Criteria A-C are considered not applicable. No further work is recommended for this site.*

REFERENCES

Anderson, D.G.
1991 The Bifurcate Tradition in the South Atlantic Region. *Journal of Middle Atlantic Archaeology* 7:91-106.

Advisory Council for Historic Preservation (ACHP)
2001 *36 CFR 800: Part 800- Protection of Historic and Cultural Properties*. Federal Register, September 2, Washington, D.C.

Anderson, D.G. and G.T. Hanson
1998 *Early Archaic Settlement in the Southeastern United States: A Case Study from the Savannah River*. American Antiquity 53:262-286.

Anonymous (Anon.)
1865 *Roanoke County, Virginia*. On File at Library of Congress.

Barber, Michael B., J. Mark Wittkofski, and Michael F. Barber
1992 *An Archaeological Overview of Stafford County, Virginia*. Preservation Technologies, Roanoke, Virginia.

Barbour, P.L.
1969 *The Jamestown Voyages Under the First Charter 1601 -1609*. Hakulyt Society, 2nd Series, Vol. 136, Cambridge.

Brugger, R.J.
1989 *Maryland, A Middle Temperament: 1634-1980*. Johns Hopkins University Press: Baltimore.

Chapman, Jefferson, and Andrea Brewer Shea
1981 "The Archaeobotanical Record: Early Archaic Period to Contact in the Lower Little Tennessee River Valley." *Tennessee Anthropologist* VI(1):61-84.

Blanton, Dennis B., and Kenneth E. Sassaman
1989 Pattern and Process in the Middle Archaic of South Carolina. In *Studies in South Carolina Archaeology: Essays in Honor of Robert L. Stephenson*, edited by A.C. Goodyear, III and G.T. Hanson, pp. 53-72. Anthropological Studies 9. Occasional Papers of the South Carolina Institute for Anthropology and Archaeology, The University of South Carolina, Columbia.

Claggett, Stephen R. and John S. Cable
1982 *The Haw River Sites: Archaeological Investigations at Two Stratified Sites in the North Carolina Piedmont.* Report R-2386. Jackson, Michigan: Commonwealth Associates, Inc.

Coe, J.L.
1964 The Formative Cultures of the Carolina Piedmont. *Transactions of the American Philosophical Society* 54:5. Philadelphia.

Conner, Albert Z.
2003 A History of Our Own: Stafford County, Virginia. The Donning Company Publishers. Virginia Beach, Virginia.

Conners, J.A.
1986 Quaternary Geomorphic Processes in Virginia. In *The Quaternary of Virginia - A Symposium Volume*, edited by J.N. McDonald and S.O. Bird, pp. 1-22. Publication No. 75. Virginia Division of Mineral Resources, Charlottesville.

Custer, Jay F.
1988 *Coastal Adaptations in the Middle Atlantic Region.* Archaeology of Eastern North American 16: 121-136.

1990 Early and Middle Archaic Cultures of Virginia: Cultural Change and Continuity. In *Early and Middle Archaic Research in Virginia*: *A Synthesis*, edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp. 1-60. Council of Virginia Archaeologists and the Archaeological Society of Virginia. The Dietz Press, Richmond.

Daniel, Randolf, Jr. and R.P. Stephen Davis, Jr.
1996 *The Projectile Point Classification Project: A Classification of Projectile Points in Existing Archaeological Collections from North Carolina*. Technical Report #26. Research Lab of Anthropology, University of North Carolina, Chapel Hill, N.C.

Davant, D.
1993 75 Years of Tradition and Technical Excellence. *On the Surface* 16 (11): 3-10.

Delcourt, H.R., and P.A. Delcourt
1985 Quaternary Palynology and Vegetational History of the Southeastern United States. In *Pollen Records of Late-Quaternary North American Sediments*, edited by V.M. Bryant, Jr. and R.G. Holloway, pp. 1-37. American Association of Stratigraphic Palynologists Foundation, Dallas.

1986 Late Quaternary Vegetational Change in the Central Atlantic States. In *The Quaternary of Virginia - A Symposium Volume*, edited by J.N. McDonals and S.O. Bird, pp. 23-35. Publication No. 75. Virginia Division of Mineral Resources, Charlottesville.

1987 *Long-Term Forest Dynamics of the Temperate Zone: A Case Study of Late-Quaternary Forests in Eastern North America*. Springer-Verlag, New York.

Dent, Richard J., Jr.
1995 *Chesapeake Prehistory: Old Traditions, New Directions*. Plenum Press, New York.

Dent, Richard J., Jr., and C. Jirikowic
1991 Excavations at the Hughes Site: Late Prehistory in the Potomac Valley. Paper presented to Eastern States Archaeological Federation, Williamsburg.

Eastman, Jane M.
1991 *Prehistoric Ceramics of North Carolina: A Quick Tour of the Published Literature*. Coastal Carolina Research, Inc. Tarboro, N.C.

Egloff, Keith T.
1989 *Native American Sites in a Fall Line Transition Study Area*. Research Report Series No. 5. Virginia Department of Historic Resources, Richmond.

Egloff, Keith T., and S.R. Potter
1982 Indian Ceramics from the Coastal Plain of Virginia. *Archaeology of Eastern North America* 10:95-117.

Egloff, Keith T. and Joseph M. McAvoy
1990 Chronology of Virginia's Early and Middle Archaic Periods. In *Early and Middle Archaic Research in Virginia: A Synthesis*, edited by Theodore R. Reinhart and Mary Ellen Hodges, pp. 61-80. Council of Virginia Archaeologists and the Archaeological Society of Virginia. The Dietz Press, Richmond.

Evans, C.
1955 A Ceramic Study of Virginia Archaeology. *Smithsonian Institution Bureau of American Ethnology Bulletin* 160. Smithsonian Institution, Washington, D.C.

Fleming, Lt. Col. C.A., Capt. R.L. Austin, and Capt. C.A. Braley, III
1978 *Quantico: Crossroads of the Marine Corps*. History and Museum Division Headquarters, U. S. Marine Corps. Washington, D.C.

Ford, R.I.
1977 Evolutionary Ecology and the Evolution of Human Ecosystems: A Case Study from the Midwestern United States. *In Explanation of Prehistoric Change,* edited by J.N. Hill, pp. 153-184. University of New Mexico Press, Albuquerque

Gardner, William M.
1977 "Flint Run Paleoindian Complex, its Implication for Eastern North American Prehistory. In Amerinds and Their Paleoenvironment in Northeastern North America." Edited by W. S. Mewman and B. Salwen, pp. 257-263. *Annals of the New York Academy of Sciences,* 288.

1981 "Paleoindian Settlement Pattern and Site Distribution in the Middle Atlantic. *Anthropological Careers*," edited by R. H. Landman, L. A. Bennett, A. Brooks, and P. P. Chock, pp. 51-73. Anthropological Society of Washington, Washington, D.C.

1982 "Early and Middle Woodland in the Middle Atlantic: An Overview." In *Practicing Environmental Archaeology: Methods and Interpretations*, edited by Roger W. Moeller, pp. 53-86. American Indian Archaeological Institute *Occasional Paper* No. 3.

1983 "Comments on a Conference on Piedmont Archaeology." In *Piedmont Archaeology: Recent Research and Results*, edited by J. Mark Wittkofski and Lyle E. Browning, pp. 148-160. *Special Publication* No. 10 of the Archaeological Society of Virginia.

1987 "Comparison of Ridge and Valley, Blue Ridge, Piedmont and Coastal Plain Archaic Period Site Distribution: An Idealized Transect (Preliminary Model)." In *Journal of Middle Atlantic Archaeology*, Vol. 3:49-80.

1989 "An Examination of Cultural Change in the Late Pleistocene and Early Holocene (circa 9200 to 6800 B.C.)." In *Paleoindian Research in Virginia: A Synthesis*. edited by J. Mark Wittkofski and Theodore R. Reinhart, pp. 5-52. *Special Publication* No. 19 of the Archeological Society of Virginia.

Gardner, William M., editor
1974 "The Flint Run Paleoindian Complex: A Preliminary Report 1971-1973 Seasons." *Occasional Publication* No. 1, Archeology Laboratory, The Catholic University of America, Washington, D.C.

Gardner, William, and Carole Nash
1987 "Early and Middle Woodland Ceramics in the Shenendoah Valley, Potomac Piedmont and Inner Potomac Coastal Plain." Paper presented to the Archaeological Society of Virginia Ceramics Symposium, Charlottelville, Virginia.

Gilmer, J.F. Chief Engineer's Office, D.N.V.
1864 *Map of Roanoke County: Southern Section, Va.* From the J.F. Gilmer Collection. On file at the Library of Congress.

Gleach, Frederic N.
1985 A Compilation of Radiocarbon Dates with Applicability to Central Virginia. Quarterly Bulletin of the Archaeological Society of Virginia 40(4): 180-200.

Griffin, James B.
1952 *Culture Periods in Eastern United States Archaeology.* In Archeology of Eastern United States, edited by James B. Griffin, 352-64. Chicago: University of Chicago Press.

Hennessy, John
1989 *The First Battle of Manassas: An End to Innocence, July 18-21, 1861*. H. E. Howard, Inc. Lynchburg, Virginia.

Haynes, John, Eric M. Hediger, and Dr. Savatore J. Bellomo
1989 *Roanoke River Parkway Environmental Impact Study, Vinton to Hardy Ford, Virginia: Technical Memorandum No. 7, Cultural Resources*. Prepared for U.S. Department of the Interior, National Park Service. Prepared by Bellomo-McGee, Inc. in association with WAPORA, Inc. VDHR #1991-1387.

Hodges, M.E.N., M.W. McCartney, and B.A. Straube
1985 *The Archaeological Resources of Caroline County: A Synthesis of Archaeological Reconnaissance Survey*. Manuscript on file, VDHR, Richmond.

Holden, Patricia P1adgett
1966 An Archaeological Survey of Transylvania County, North Carolina. M.A. Thesis. Dept. of Anthropology, University of North Carolina, Chapel Hill, N.C.

Jack, George S., and Edward Boyle Jacobs
1912 *History of Roanoke County*. Stone, Roanoke Virginia. Electronic document, https://dcms.lds.org/delivery/DeliveryManagerServlet?dps_pid=IE6855876, accessed November 2015.

Jones, Oliver, and Catherine Sullivan
1989 *The Parks Canada Glass Glossary*. National Historic Parks and Sites, Canadian Parks Service, Environment Canada, Ottawa.

Justice, Noel D.
1995 *Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States.* Indiana University Press, Bloomington.

Kaplan, Barbara Beigun
1993 *Land and Heritage in the Virginia Tidewater: A History of King and Queen County*. Cadmus Fine Books, Richmond, Virginia.

Keel, Bennie C.
1976 *Cherokee Archaeology*. University of Tennessee Press, Knoxville.

Kegley, Frank B.
1938 *Kegley's Virginia Frontier*. The Stone Printing and Manufacturing Company, Roanoke, Va.

Klein, Michael J.
1997 *The Transition from Soapstone Bowls to Marcey Creek Ceramics in the Middle Atlantic Region: Vessel Technology, Ethnographic Data, and Regional Exchange*. Archaeology of Eastern North America 25: 143-158.

Klein, Mike and D. Brad Hatch
2016 *Phase I Archaeological Survey of the East Roanoke River Greenway, Roanoke County, Virginia*. Prepared for Anderson & Associates, Inc. Prepared by Dovetail Cultural Resource Group. VDHR File # 2015-3500.

Klein, Michael J. and Thomas Klatka
1991 Late Archaic and Early Woodland Demography and Settlement. In *Late Archaic and Early Woodland Research in Virginia: A Synopsis,* edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp. 139-184. Council of Virginia Archaeologists and the Archaeological Society of Virginia. The Dietz Press, Richmond.

Kraft, J. C.
1977 "Late Quaternary Paleogeographic Changes in the Coastal Environments of Delaware, Middle Atlantic Bight, Related to Archaeological Settings." In *Amerinds and Their Paleoenvironments in Northeastern North America*, edited by W. S. Newman and B. Salwen, pp. 55-69. *Annals of the New York Academy of Sciences*, vol. 288.

Kulikoff, Allan
1986 *Tobacco and Slaves: The Development of Southern Cultures in the Chesapeake, 1680-1800.* University of North Carolina Press, Chapel Hill.

Lewis, C. and A.J. Loomie
1953 *The Spanish Jesuit Mission in Virginia, 1570-1572*. University of North Carolina Press, Chapel Hill.

Lowery, D., and J.F. Custer
1990 Crane Point: An Early Archaic Site in Maryland. *Journal of Middle Atlantic Archaeology* 6:75-120.

MacCord, H.A.
1991 The Indian Point Site, Stafford County, Virginia. *Archeological Society of Virginia Quarterly Bulletin*, 46(3):117-140.
1992 The Potomac Indians: A Brief Culture History. *Archeological Society of Virginia Quarterly Bulletin*, 47(2):71-84.

Manerin, Louis H., and Clifford Dowdey
1984 *The History of Henrico County*. University Press of Virginia, Charlottesville.

Manson, C.P. and H.A. MacCord
1984 The Stratigraphic Sequence at Patawomeke, Stafford County, Virginia. Ms. on file, Department of Historic Resources, Richmond.

McAvoy, Joseph M, and Lynn D. McAvoy
1997 *Archaeological Investigations of Site 44SX202, Cactus Hill, Sussex County, Virginia*. Virginia Department of Historic Resources, Research Report Series No. 8.Richmond.

McCary, Ben C.
1951 "A Workshop of Early Man in Dinwiddie County, Virginia." *American Antiquity* 17(1):9-17.

1975 "The Williamson Paleoindian Site, Dinwiddie County, Virginia." *The Chesopiean* 13(3-4):48-131.

1983 "The Paleoindian in Virginia." *Archeological Society of Virginia Quarterly Bulletin* 38(1):43-70.

McLearen, Douglas C.
1992 Virginia's Middle Woodland Period: A Regional Perspective. In Middle and Late Woodland Research in Virginia: A Synthesis, ed. T.R. Reinhart and M.E.N. Hodges, pp. 39-64. The Dietz Press, Richmond, VA.

McLearen, Douglas C., and L. Daniel Mouer
1989 "Middle Woodland II Typology and Chronology in the Lower James River Valley of Virginia." Paper presented at the Middle Atlantic Archaeological Conference, Rehoboth Beach, Delaware.

1993 *Jordan's Journey II*. Prepared by Virginia Commonwealth University Archaeological Research Center, Richmond, Virginia.

McMillan, R.B., and W.E. Klippel
1981 Post-Glacial Environmental Change and Hunting-Gathering Societies of the Southern Prairie Peninsula. *Journal of Archaeological Science* 8:215-245.

Meltzer, David J.
1988 Late Pleistocene Human Adaptations in Eastern North America. *Journal of World Prehistory* 21-52.

Moorman , John Jennings
1859 *The Virginia Springs of the South and West*. J.B. Lippincott and Co.

Mouer, L. Daniel (Editor)
1991 Explaining the Formative Transition in Virginia: Concluding Remarks. In *Late Archaic and Early Woodland Research in Virginia: A Synthesis*, edited by T.R. Reinhart and M.E.N. Hodges, pp. 259-273. Special Publication No 23. Archaeological Society of Virginia, Richmond.

Mouer, L. Daniel
1982 "Beyond Exchange: Ceramics Analysis and The Study of Social and Political Systems." Paper presented to the American Anthropological Association.

1986 *Archaeology in Henrico: Archaeological Investigations in the Upham Brook and Upper Chickahominy Valleys*. Vol. 3 of 3. Virginia Commonwealth University, Richmond.

1991 The Formative Transition in Virginia. In *Late Archaic and Early Woodland Research in Virginia: A Synthesis*, edited by Theodore R. Reinhart and Mary Ellen N. Hodges. Special Publication No. 23. The Dietz Press, Richmond.

Munsell Color
1994 *Munsell Soil Color Charts.* Macbeth Division of Kollomorgan Instruments Corporation, New Windsor, New York.

Netherton et al.
1978 *Fairfax County, Virginia: A History*. Fairfax County Board of Supervisors, Fairfax.

Noe, Kenneth W.
1994 *Southwest Virginia's Railroad: Modernization and the Sectional Crisis*. University of Illinois Press, Urbana, Illinois.

Noel-Hume, Ivor
1969 *A Guide to Artifacts of Colonial America*. Alfred A. Knopf, New York.

NPS (National Park Service)
2018 "Roanoke Valley / Blue Ridge Parkway Trail Plan" on PEPC Planning, Environment, and Public Comment. https://parkplanning.nps.gov/projectHome.cfm?projectID=10392

Odell, G.H.
1994 Prehistoric Hafting and Mobility in the Midcontinent: Examples from Illinois. *Journal of Anthropological Archaeology* 51-73.

O'Donnell, Darby
2018 *Phase I Cultural Resource Survey of the Proposed Roanoke River Greenway, Roanoke County, Virginia*. Darby O'Donnell, LLC.

Pittman, William, et al.
1987 Laboratory *Manual, Department of Archaeological Research*, Colonial Williamsburg Foundation. Williamsburg, Virginia.

Poland, Charles Preston, Jr.
1976 *From Frontier to Suburbia*. Walsworth Publishing Co., Marceline, Missouri.

Potter, Stephen R.
1976 An Ethnohistorical Examination of Indian Groups in Northumberland County, Virginia: 1608-1719. M.A. Thesis, Department of Anthropology, University of North Carolina, Chapel Hill.

1993 *Commoners, Tribute, and Chiefs: The Development of Algonquian Culture in the Potomac Valley*. The University Press of Virginia, Charlottesville.

Roanoke County
2015 *A Brief History of Roanoke County*. RoanokeCountyVA.gov. Electronic document, http://www.roanokecountyva.gov/index.aspx?NID=805, accessed November 2015.

The Roanoke Valley Convention & Visitors Bureau
2015 VisitRoanokeVA.com. Electronic document, http://www.visitroanokeva.com/, accessed November 2015.

Rutman, Darret B., and Anita H. Rutman
1984 *A Place in Time: Middlesex County, Virginia, 1650-1750*. W. W. Norton & Company, New York.

Smith, John
1610 *Virginia Discovered and Discribed [sic]*. Virginia Department of Historic Resources, Richmond, VA.

1910a A True Relation of Occurrences and Accidents in Virginia, 1608. In *Travels and Works of Captain John Smith*, edited by Edward Arber, pp. 1-40. John Grant, Cambridge.

1910b A Map of Virginia with a Description of the Countrey, the Commodities, People, Government, and Religion, 1612. In *Travels and Works of Captain John Smith*, edited by Edward Arber, pp. 41-84, John Grant, Cambridge.

Sprouse, E. M.
1975 *Colchester: Colonial Port on the Potomac*. Fairfax County Office of Comprehensive Planning, Fairfax, Virginia.

Stephenson, Robert L., A.L.L. Ferguson, and H.G. Ferguson
1963 The Accokeek Creek Site: A Middle Atlantic Seaboard Culture Sequence. Anthropological Papers no. 20. Ann Arbor: Museum of Anthropology, University of Michigan

Stevens, J. Sanderson
1991 A Story of Plants, Fire, and People: The Paleoecology and Subsistence of the Late Archaic and Early Woodland in Virginia. In *Late Archaic and Early Woodland Research in Virginia: A Synopsis*, edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp. 185-220. Council of Virginia Archaeologists and the Archaeological Society of Virginia. The Dietz Press, Richmond.

Stoetzel, Donald I.
2008 *Encyclopedia of the French and Indian War in North America; 1754-1763*. Heritage Books.

Sweig, Donald
1992 Fairfax County: 1649-1800. In *Fairfax County, Virginia: A History*, edited by N. Netherton, pp. 5-151. Originally published 1978. 250th Anniversary Commemorative Edition. Fairfax County Board of Supervisors, Fairfax, Virginia.

Tyler, L.G. (Editor)
1907 *Narratives of Early Virginia, 1606-1625*. Barnes and Noble, Inc., New York.

United States Department of Agriculture
2019 Web Soil Survey. Natural Resources Conservation Service. Electronic Document. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed Nov. 2012.

United States Department of the Interior (USDI)
1981 *Department of the Interior's Regulations, 36 CFR Part 60: National Register of Historic Places*. U.S. Department of the Interior, Washington, D.C.

1983 *Department of the Interior, Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines*. U.S. Department of the Interior, Washington, D.C.

1991 How to Apply the National Register Criteria for Evaluation. *National Register Bulletin 15.* U.S. Department of the Interior, Interagency Resources Division, Washington D.C.

United States Geologic Survey (USGS)
1961 *Hardy, VA. On file at USGS.com* Reston, Virginia.

1951 *Boones Mill, VA. On file at USGS.com* Reston, Virginia.

1890 *Bedford, VA. On file at USGS.com* Reston, Virginia.

VCRIS (Virginia Cultural Resource Information System)
2019 System Accessed. Virginia Dept. of Historic Resources, Richmond, Virginia.

Virginia Department of Historic Resources (VDHR)
1992a *Guidelines for Preparing Identification and Evaluation Reports for Submission Pursuant to Sections 106 and 110, National Historic Preservation Act Environmental Impact Reports of State Agencies Virginia Appropriation Act, 1992 Session Amendments.*

1992b *How to Use Historic Contexts in Virginia: A Guide for Survey, Registration, Protection, and Treatment Projects.* VDHR, Richmond.

1993 *State Curation Standards*. VDHR, Richmond.

1997 *Historic Context Guidelines for Preparing Cultural Resource Survey Reports*. Letter from John Kern to DHR Survey Team dated July 16. VDHR, Richmond.

2017 *Guidelines for Historic Surveys in Virginia, Additional Guidance for the Implementation of the Federal Standards Entitled Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines (48 FR 44716-44742, September 29, 1983).* VDHR, Richmond.

Waltmyer, T.
1995 A Complete History of the Woodbridge Research Facility. *Journal of Historic Prince William* 3:40-60.

Ward, H. Trawick and R.P. Stephen Davis Jr.
1999 *Time Before History: The Archaeology of North Carolina*. University of North Carolina Press, Chapel Hill.

Wendland, Wayne M. and Reid A. Bryson
1972 "Late and Postglacial Climatic Change in the Northern Midwest USA: Quantitative Estimates Derived from Fossil Pollen Spectra by Multivariate Statistical Analysis." *Quaternary Research* 13(2):187-199.

1974 *Dating Climatic Episodes of the Holocene*. Quaternary Research 4: 9-24.

Wood, John (Series)
1821 *Montgomery County, Virginia*. On file at VDHR.

Yarnell, Richard A.
1976 "Early Plant Husbandry in Eastern North America." In *Cultural Change and Continuity: Essays in Honor of James Bennett Griffin*, edited by Charles E. Cleland, Academic Press, New York.

APPENDIX A: Artifact Catalog

Site	Area	Grid Coord	Strat	Count	Material	Class	Attribute 1	Attribute 2	Attribute 3	Date
44RO0422	Trail T1	T1-11 North	I	1	Quartz	Domestic	Biface	Savannah River	Fragment of Stem and ear	2,500-1,200 B.C.
44RO0422	Trail T1	T1-11	I	1	Quartzite	Domestic	Reduction Flake	Primary	Scraper	Prehistoric Unknown
44RO0422	Trail T1	T1-11	I	1	Quartz	Domestic	Reduction Flake	Secondary		Prehistoric Unknown
44RO0422	Trail T1	T1-12	Surface	1	Quartz	Domestic	Reduction Flake	Secondary		Prehistoric Unknown
44RO0423	A	D-11	I	1	Quartz	Domestic	Biface	Lamoka	Fragment of Stem and ear	3,500 - 2,500 B.C.
44RO0423	A	D-11	Surface	1	Quartz	Domestic	Biface	Stage 1; incomplete	Fragment	Prehistoric Unknown
44RO0423	A	C-11 West	I	1	Quartz	Domestic	Biface	Unidentifiable tool/point	Fragment	Prehistoric Unknown
44RO0423	A	E-17	I	1	Quartz	Domestic	Biface	Unidentifiable tool/point	Fragment	Prehistoric Unknown
44RO0423	A	D-11	Surface	1	Quartz	Domestic	Biface	Unidentifiable tool/point	Fragment	Prehistoric Unknown
44RO0423	A	D-11	Surface	1	Quartz	Domestic	Cobble	Prepared Core	Fragment	Prehistoric Unknown
44RO0423	A	C-11	I	1	Quartz	Domestic	Reduction Flake	Primary		Prehistoric Unknown
44RO0423	A	D-11	Surface	1	Quartz	Domestic	Reduction Flake	Primary		Prehistoric Unknown
44RO0423	A	D-11 East	I	1	Quartz	Domestic	Reduction Flake	Secondary		Prehistoric Unknown
44RO0423	A	D-11 South	I	3	Quartz	Domestic	Reduction Flake	Secondary		Prehistoric Unknown
44RO0423	A	C-11	I	2	Quartz	Domestic	Reduction Flake	Secondary		Prehistoric Unknown
44RO0423	A	D-12	I	2	Quartz	Domestic	Reduction Flake	Secondary		Prehistoric Unknown
44RO0423	A	E-17	I	3	Quartz	Domestic	Reduction Flake	Secondary		Prehistoric Unknown
44RO0423	A	D-11	I	5	Quartz	Domestic	Reduction Flake	Secondary		Prehistoric Unknown
44RO0423	A	D-11	Surface	2	Quartz	Domestic	Reduction Flake	Secondary		Prehistoric Unknown
44RO0423	A	D-11 South	I	1	Quartzite	Domestic	Reduction Flake	Secondary		Prehistoric Unknown
44RO0423	A	D-11	I	1	Rhyolite	Domestic	Reduction Flake	Secondary		Prehistoric Unknown
44RO0423	A	D-11 East	I	1	Quartz	Domestic	Reduction Flake	Tertiary		Prehistoric Unknown
44RO0423	A	G-18	I	1	Quartz	Domestic	Reduction Flake	Tertiary		Prehistoric Unknown

APPENDIX B: VDHR VCRIS Site Forms

Snapshot

Date Generated: October 28, 2019

Site Name: No Data
Site Classification: Terrestrial, open air
Year(s): 3000 - 1201 B.C.E
Site Type(s): Camp, temporary
Other DHR ID: No Data
Temporary Designation: No Data

Site Evaluation Status

Locational Information

USGS Quad: HARDY
County/Independent City: Roanoke (County)
Physiographic Province: Blue Ridge
Elevation: No Data
Aspect: No Data
Drainage: Roanoke
Slope: 0-2%
Acreage: 0.050
Landform: Ridge Finger
Ownership Status: Local Govt
Government Entity Name: No Data

Site Components

Component 1

Category: Domestic
Site Type: Camp, temporary
Cultural Affiliation: Native American
DHR Time Period: Late Archaic Period (3000 - 1201 B.C.E)
Start Year: No Data
End Year: No Data
Comments: No Data

Bibliographic Information

Bibliography:

O'Donnell, Darby
2019 Phase I Cultural Resource Identification Survey of Proposed Mountain Bike Trails and Parking Lot at Explore Park, Roanoke County, Virginia. Prepared for Balzer and Associates in coordination with Roanoke County Dept. of Recreation and Tourism.

Informant Data:

No Data

CRM Events

Event Type: Survey:Phase I

Project Staff/Notes:

No Data

Project Review File Number: No Data

Sponsoring Organization: No Data

Organization/Company: Darby O'Donnell, LLC

Investigator: Darby O'Donnell

Survey Date: 10/15/2019

Survey Description:

Phase I survey of proposed mountain bike trails and associated parking lot.

Current Land Use	Date of Use	Comments
Recreation facility	10/23/2019	This site is located along an existing hiking/biking trail.

Threats to Resource: Erosion

Site Conditions: 50-74% of Site Destroyed

Survey Strategies: Observation, Subsurface Testing

Specimens Collected: Yes

Specimens Observed, Not Collected: No

Artifacts Summary and Diagnostics:

A total of four artifacts were recovered from the shovel tests. The only diagnostic artifact was a base fragment of a quartz Savannah River projectile point (2,500-1,200 B.C.). Non-diagnostic artifacts included quartz secondary flakes (n=2). Non-diagnostic lithic tools included a quartzite scraper tool (n=1).

Summary of Specimens Observed, Not Collected:

No Data

Current Curation Repository: Darby O'Donnell, LLC

Permanent Curation Repository: Roanoke County

Field Notes: Yes

Field Notes Repository: Darby O'Donnell, LLC (2019)

Photographic Media: Digital

Survey Reports: Yes

Survey Report Information:

O'Donnell, Darby
2019 Phase I of Proposed Mountain Bike Trails and Associated Parking Facility at Explore Park, Roanoke County, Virginia. Prepared for Balzer and Associates in Coordination with Roanoke County Dept. of Parks and Recreation.

Survey Report Repository: Darby O'Donnell, LLC

DHR Library Reference Number: No Data

Significance Statement: Site integrity was severely impacted by erosion along the narrow ridge line. Due to the paucity of artifacts and the limited research potential in general, this site is recommended as not eligible for listing in the National Register of Historic Places under Criteria D. Criteria A-C are considered not applicable. No further work is recommended for this site.

Surveyor's Eligibility Recommendations: Recommended Not Eligible

Surveyor's NR Criteria Recommendations: No Data

Surveyor's NR Criteria Considerations: No Data

Snapshot

Date Generated: October 28, 2019

Site Name:	No Data
Site Classification:	Terrestrial, open air
Year(s):	3000 - 1201 B.C.E, 1946 - 1991, 1992 - ?
Site Type(s):	Camp, temporary, Trash pit, Lithic procurement site
Other DHR ID:	No Data
Temporary Designation:	No Data

Site Evaluation Status

Locational Information

USGS Quad:	HARDY
County/Independent City:	Roanoke (County)
Physiographic Province:	Blue Ridge
Elevation:	No Data
Aspect:	No Data
Drainage:	Roanoke
Slope:	0-2%
Acreage:	0.410
Landform:	Ridge Finger
Ownership Status:	Local Govt
Government Entity Name:	No Data

Site Components

Component 1

Category:	Domestic
Site Type:	Camp, temporary
Cultural Affiliation:	Native American
DHR Time Period:	Late Archaic Period (3000 - 1201 B.C.E)
Start Year:	No Data
End Year:	No Data
Comments:	No Data

Component 2

Category:	Domestic
Site Type:	Trash pit
Cultural Affiliation:	Indeterminate
DHR Time Period:	The New Dominion (1946 - 1991), Post Cold War (1992 - Present)
Start Year:	No Data
End Year:	No Data
Comments:	Broadcast refuse associated with late 20th century across the landform. Plastic bags, plastic bottles, modern trash.

Component 3

Category:	Industry/Processing/Extraction
Site Type:	Lithic procurement site
Cultural Affiliation:	Native American
DHR Time Period:	Late Archaic Period (3000 - 1201 B.C.E)
Start Year:	No Data
End Year:	No Data
Comments:	No Data

Bibliographic Information

Bibliography:

O'Donnell, Darby
2019 Phase I Cultural Resource Identification Survey of Proposed Mountain Bike Trails and Parking Lot at Explore Park, Roanoke County, Virginia. Prepared for Balzer and Associates in coordination with Roanoke County Dept. of Recreation and Tourism.

Informant Data:

No Data

CRM Events

Event Type: Survey:Phase I

Project Staff/Notes:

No Data

Project Review File Number: No Data

Sponsoring Organization: No Data

Organization/Company: Darby O'Donnell, LLC

Investigator: Darby O'Donnell

Survey Date: 10/15/2019

Survey Description:

Phase I survey of proposed mountain bike trails and associated parking lot.

Current Land Use	Date of Use	Comments
Forest	10/23/2019	*No Data*

Threats to Resource: Development, Erosion

Site Conditions: 50-74% of Site Destroyed

Survey Strategies: Observation, Subsurface Testing

Specimens Collected: Yes

Specimens Observed, Not Collected: Yes

Artifacts Summary and Diagnostics:

A total of 30 artifacts were recovered from the shovel tests and surface finds. The only diagnostic artifact was a base fragment of a quartz Lamoka projectile point (3,500-2,500 B.C.). Non-diagnostic artifacts included quartz primary flakes (n=2), secondary quartz flakes (n=18), secondary quartzite flakes (n=1), secondary rhyolite flakes (n=1), tertiary quartz flakes (n=2), and a prepared quartz core fragment (n=1). Non-diagnostic lithic tools included unidentifiable quartz tools/points (n=3) and an incomplete stage 1 biface (n=1).

Summary of Specimens Observed, Not Collected:

Late 20th century refuse was strewn about the site and the landform.

Current Curation Repository: Darby O'Donnell, LLC

Permanent Curation Repository: Roanoke County

Field Notes: Yes

Field Notes Repository: Darby O'Donnell, LLC

Photographic Media: Digital

Survey Reports: Yes

Survey Report Information:

O'Donnell, Darby
2019 Phase I of Proposed Mountain Bike Trails and Associated Parking Facility at Explore Park, Roanoke County, Virginia. Prepared for Balzer and Associates in Coordination with Roanoke County Dept. of Parks and Recreation.

Survey Report Repository: Darby O'Donnell, LLC

DHR Library Reference Number: No Data

Significance Statement: Site integrity was severely impacted by the bull-dozed road along the ridge line. In addition, erosion along the narrow ridge line can be severe in places. Due to the previous impacts to this site and the limited research potential in general, this site is recommended as not eligible for listing in the National Register of Historic Places under Criteria D. Criteria A-C are considered not applicable. No further work is recommended for this site.

Surveyor's Eligibility Recommendations: Recommended Not Eligible

Surveyor's NR Criteria Recommendations: No Data

Surveyor's NR Criteria Considerations: No Data