The Cairns of Dowell Mountain:
The Shifting Cultural Landscape of Montane Central Virginia

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Completed Spring 2013

ABSTRACT: Dowell Mountain, seated in the heart of Virginia's Southwest Mountains, is home to roughly 600 enigmatic stone mounds on or near its slopes. These stone constructions, all built by human hands, represent an insight into the lives of the people who lived there. By studying the locations, orientations, dimensions, and apparent construction techniques of the cairns, along with any other artifacts and signs of land use nearby, this non-invasive archaeological survey attempts to determine the origins and purpose(s) of these mysterious stone piles. Extensive onsite mapping and measuring, coupled with in-depth academic historical research and anecdotal local histories of the area begin to shed light on human interaction in and with the hills. This research serves to describe the cultural and economic patterns that have shaped life in this small corner of Virginia over the years, and generate parallel insights into the cultural history of rural life in the mountainous Mid-Atlantic in general. Indeed, these mountains have witnessed the changing cultures that have occupied the region over millennia, from archaic and woodland Native Americans to the proud Monacan Confederacy, and later replaced by white planters and loggers. Previous studies have examined Monacan ceremonial culture and the several Eighteenth Century presidential homes in the area, but little research has been done on the lives of everyday people trying to survive in the mountains.

Introduction:

About three miles south of the hamlet of Barboursville, Virginia, lies Dowell Mountain, one of the central peaks of the Southwest Mountains range. In truth, Dowell Mountain is almost undeserving of the classification: it rises only some 1,300 feet above sea level, barely 900 feet above Albemarle County's nearby lowlands. But what does set Dowell Mountain apart from other, more vertically inclined peaks is the presence of many stone mounds around its base and on neighboring summits. I have identified at least six distinct fields of these cairns, and in total they number something approaching 600 individual constructions. There are a few linear walls or terraces, but typically the stone forms are hemispheric, often upwards of five feet in diameter and usually half as tall. I am confident that these mounds represent a cultural landscape(s), but the specifics of who, when, and why are elusive and require investigation.

This capstone is inspired by a deep interest in the culture and history of my home region— the mountains of central Virginia. This is an intriguing, semi-rural area, in the past often viewed as the edge of civilization, and yet no fewer than five American presidents were born or have lived in the region. There exists a deep history of mound-building Native Americans, European frontier culture, Civil War campaigns, and (recently) political debates as to the role of wild areas in American society, including the forced clearance of poor mountain farmers in the 1930s to create the Shenandoah National Park. This project is an opportunity to take a much more holistic view of the area's history via one specific element of regional culture—stone constructions. These cairns begin literally in the backyard of the house where I grew up, and though there are many they remain a rare occurrence within the greater context of the region, leaving them both fascinating and mysterious.

The idea of a cairn is a simple one: it is multiple stones stacked one upon another in order to be

easily seen, keep them organized, or perhaps to bury something beneath them. Cairn building has existed the world over in essentially every culture that has ever arisen (the word itself is Gaelic, coming to English because ancient Celtic Britons were prolific stone-wrights themselves— Stonehenge being arguably the most impressive example). In the past, stone constructions were built for cultural, spiritual, scientific, or economic reasons, depending on the culture, place, and time. Today, new cairns are mainly built by hikers to mark a trail or the successful summiting of a peak.

However, the presence of so many cairns around Dowell Mountain is quite unusual. Having many hundreds spread over an area of less than two square mile is not a common occurrence anywhere in history. Many different Native American groups were known to build mounds of either stone or earth, but typically these were on a grand scale (such as at Cahokia) or appear in less density, often as a few individual burial mounds. European cultures likewise have their own histories of cairn-building, which could easily have been transported across the Atlantic. In European societies, cairns were often constructed as boundary markers, or more recently as detritus from clearing an area for intensive agricultural use. Indeed, many of the mounds around Dowell Mountain are clearly of recent vintage and appear at the edge a cleared field. However, many others are not so easily explained away, and it is these in particular that are in need of examination.

Narrowly, this project attempts a thorough investigation of the stone constructions around Dowell Mountain in order to understand why so massive an undertaking (as these cairns would have required) took place, and to understand the cairns' history—who built them, along with when, why, and how. But in the long run, the scope of this research is much more than that, trying to understand the pluralistic cultural uses of the montane landscape of this area, and how they have changed over time. It

is comprised of several complementary efforts, including detailed mapping of the cairns, their environmental contexts, their dimensions, and their spatial relations to one another. The second approach is to research what has been said about similar constructions in Virginia and the mid-Atlantic, as well as the history of the area in proximity to Dowell Mountain. Finally, this project requires not only a description of the various mounds themselves, but of the people(s) who might have built them, their culture, economic situation, and worldview. By approaching the cairns from all three directions, it should be possible to uncover their histories, as well as something of the stories of the people who made them.

Methodology:

Due to the diversity of informational resources required to complete this project, research took several different forms. The most important (and time-consuming) method of data collection was on-site surveying of the cairns and their surroundings. No excavations were undertaken, as the intention was to learn as much as possible without dismantling any of the cairns or otherwise destroying any part of the landscape. The primary survey, intended to simply find cairn sites, was completed over several weeks in 2012, with a secondary effort in 2013. This was accomplished by methodically traversing likely areas and observing any signs of human activity there. Although some of the cairns appear in similar circumstances (most notably at sites A, B, and D) and allow for some prediction of where more will be, other fields turned out to be entirely unexpected. This made the search somewhat challenging, but resulted in a relatively complete understanding of important locations for further study. In a few cases only a few or even just an individual cairn were discovered in remote areas, making the search worthwhile, however inefficient.

The second phase of surveying meant returning to the sites in early 2013 and gathering specific

information regarding the cairns' locations, relative positions and orientations, and comparative sizes. This data took the form of hand-drawn maps on blown-up sections of USGS topographic quadrangle maps. These maps were then used to both identify important sections of the sites for follow-up description, and to create a better, holistic view of the cairns' relationships to their surrounding geography, especially when compared to satellite imagery that revealed or confirmed certain information that was hard to ascertain on the ground.

The third phase of on-site surveying meant returning to important cairn fields to gather very specific data during the spring of 2013. The cairns were measured and described individually by hand, including their form, composition, and physical parameters. Distances between them and their neighbors and other important phenomena were recorded. This included evidence of a variety of fencing types, nearby roadways (ranging from recently graveled to abandoned for decades), and the remains of machinery and mechanical parts, including vehicles and metal piping. Any pertinent on-site artifacts and natural phenomena were recorded, though only a few were taken into collection. Digital photographs were taken to provide better descriptions as well. This data was used to update the maps and provide both quantitative and qualitative information for later analysis

Over time, observation revealed methods for developing comparative dating techniques, or at least typologizing the cairns. Many different factors can be used to understand the creation and history of a given cairn. Certain elements—such as the size and type of constituent stones, lichen overgrowth, wall height and rectilinearity, surrounding topography and artifacts, and overall condition—can be used to infer relative age and probable origin. In particular, older cairns tend to be smaller, have smaller stones constituting them, have a uniform pattern of lichen covering the surface, are shaped more as

domes than cylinders, have less defined walls, and may have been depleted by later occupations of the same area. During surveying, observation of these criteria allowed for informed opinions of the cairns' pasts, and their relationships to one another. Due to the dearth of any associated biological material (and prohibitive cost even if there were), exact dates were impossible to come by. However, using the information described above during surveying, approximate understandings of history and age were identified and analyzed.

However, there were some limitations with the surveying. Also attempted was the gathering of GPS data, which worked well on the eastern side of Dowell Mountain. However, the "AT&T communications facility" (it appears to actually be a government-run, high-security site that possibly houses a nuclear warhead) on nearby Peter's Mountain extends a wireless blackout zone for over a mile that made the GPS unit inexact at best within Echo Valley, on the western side of Dowell Mountain (Spencer Young, interview, April 7, 2013). This essentially made the data unusable, so precise positions for research sites were necessarily relegated to proxy data from on-site observation and satellite imagery.

The late discovery of a Site F a few thousand feet north of previously-known cairn fields was further hampered by not having permission to enter the property, time limitations, and most of the cairns appearing identical to those already described at site C and thus reducing the pressure to investigate, resulting in little time being spent there. This means that comparatively little is understood about this area.

Additionally, due to time constrictions (it takes between five and ten minutes to accurately describe a single cairn, record pertinent proximities, and check for artifacts), the executive decision was taken to only fully record data from sites A and E, which both contain a large diversity of forms and

proximate phenomena, and parts of site B as a comparative control. Even so, certain individual cairns were left unrecorded within these sites if they appeared to not offer any data that their neighbors had not already provided. All this being said, what data was collected still allows for detailed conclusions regarding the cairn and their surroundings.

The second main approach to data collection was archival and historical research with regards to the area and its settlement. This involved reading through selected histories of regional European colonization efforts and more recent local vernacular culture-histories, as well as archaeological understandings of prehistoric peoples and their works. This also involved visiting resources that held specific information necessary for the completion of historical understanding of the area, such as the University of Virginia's maps collection, and the Albemarle County Historical Society's non-scholarly resources.

The third resource used to understand the area's history was informal interviews, conversations, and correspondence with people better informed than myself on certain subject matter. This included professional and academic archaeologists with knowledge of regional cairn culture and artifact typologizing, people who have been involved in the region and its ecology and economy for many decades and their anecdotal histories, and professional landscapers who can describe the most effective methods for agronomic production. While these resources are perhaps less scholarly (and inherently prone to non-concurrence between individuals with different understandings), they allow for a much fuller depiction of issues surrounding the cairns.

Geographical Background:

The Southwest Mountains are a narrow band of small peaks—some might say glorified hills—that run

parallel to the better known Blue Ridge Mountains, which reside 30 miles to the west. The highest mountain in the range, Peter's Mountain, isn't even 1,800 feet above sea level. These mountains are considered some of the oldest in the world, and though they may once have been as tall as the Rockies, erosive forces have reduced them to their present height over many millions of years. The main body of the range is in the eastern portion of Albemarle County in central Virginia, although the northern and southern termini run into Orange and Nelson counties, respectively (Woods 1901:19).

Geologically, the range is made primarily of Catoctin greenstone, a type of basaltic rock than runs in a band directly under the Southwest Mountains in Orange and Albemarle counties. The greenstone can form everything from pebbles to boulders over a dozen feet to a side, and appears readily on the surface, especially in woodland depressions that get inundated with periodic rainfall and snowmelt, and on steep slopes where weathering causes looser soil to move downhill. The greenstone is also home to veins of other minerals, including iron. The other commonly seen stone is quartz crystal, a strong, clear to milky-white rock that forms small stones, usually no larger than a cubic foot. Quartz can also appear as seams within the greenstone. In a few locations in the mountains, other types of stone can be found, including steatites, sandstones, limestones, and marbles, but in my surveying I did not encounter them in the area of research (Harrison 1886).

The Southwest Mountains (usually termed as the singular "Southwest Mountain" until the 20th century) are named such because they run almost perfectly south-west (and north-east), and are otherwise much less remarkable than the nearby Blue Ridge or the Appalachians proper. However, at the time the first white settlers arrived, they were commonly termed the "Chestnut Mountains," due to the prevalence of the trees on their slopes — some researchers estimate that approximately one quarter

of the mature hardwood trees in the area were the American Chestnut, *Castanea dentata* (Holland 1978). The chestnut went essentially extinct in the area within the last century following the arrival of the blight (although the toponym remained common until that point), but the current name had already arrived by the time Peter Jefferson (the president's father) had made his map of the state in 1751 (ACHS 2012).

Today, the forests of the Southwest Mountains maintain a mixture of trees and underbrush. By far most of the forests are comprised of temperate deciduous trees, including a variety of oaks, maples, and poplars. In some places, other trees are also prevalent, such as pines, cedars, sassafrases, sourwoods, junipers, dogwoods, hickories, and locusts. A number of native fruiting trees are sometimes found as well, including pawpaws and persimmons . It can be presumed that (with the exception of the loss of the chestnut) this was approximately the same makeup of the forests for the last several thousand years, during the warm period following the end of the last ice age (Holland 1978).

History:

Humans have been in this area for well over 10,000 years, although early occupations were too light to leave much archaeological evidence (Holland 1978). What little can be confirmed is that there was a sparse population of hunters and foragers that migrated large distances to stay fed. However, as the climate warmed and the environment became more productive, more and more people began living in the area. By the Early Woodland period (3,200-2,500 years ago), life began to radically alter for people here, most notably in terms of "dramatic increases in sedentism, population, and organizational complexity" (Anderson & Mainfort 2002:1). Ceramic technology replaced vessels carved from steatite, possible hierarchies began to slowly replace former egalitarian organization, and people had settled into

a seasonal migration pattern. By the end of the period, there was sufficient population density and cultural desire such that some woodland groups in the northern Piedmont (especially in the Shenandoah Valley) had begun building earth and stone mounds for burial or other ceremonial purposes (Hantman & Gold 2002:285).

By the Late Woodland (1,000-400 years ago), life had shifted even further from archaic ways. The period is viewed in archaeological texts as being defined by "mound construction and ceremonialism, intensive cultivation of crops, and well defined village life, at least at some times and in some areas" (Anderson & Mainfort 2002:5). Both the bow-and-arrow and productive cultivars had recently been introduced, radically changing habitation systems. People now had long-term settlements in one place, possibly for decades, where they grew crops such as corn, beans, and squash, and would send out seasonal parties to extract plant and animal resources (Hantman & Gold 2002:282).

The Late Woodlands period people living in the central Piedmont (roughly centered around what is today Albemarle county) were referred to as the Monacan Confederacy in colonial records. They were a group of related tribes, such as the Saponis, Tutelos, and Monacans proper, who were culturally associated and typically on good terms with one another (Jefferson 1984[1782]:220). Interestingly, the Monacan tribes spoke Siouan languages (collectively called Piedmont Siouan), indicating that they were actually an offshoot of the better-known Sioux tribes in the midwest (Hantman & Gold 2002:273). While never particularly populous—estimates place the Monacans at only several thousand people—they roamed a large area in central and western Virginia, at times trading and at other times at war with the Iroquoian Mannahoacs to the north and the significantly larger Powhatan Confederacy to the east (Jefferson 1984[1782]:220).

By the arrival of Europeans in the Chesapeake, the Monacans had built several large villages in the area, as well as at least 13 huge accretional earthen mounds (Dunham et al. 2003). These were used as ceremonial spaces for the burial of members of the tribe; research has shown that some of these mounds were so extensive that they could hold well over 1,000 bodies (Dunham et al. 2003). It would appear that bodies were deposited over several centuries, with more soil added after each interment, allowing the mounds to expand to over 40 feet in diameter and over a dozen feet tall (Holland 1978). One of these accretional mounds (near present-day Charlottesville, Virginia) was investigated by Thomas Jefferson (1984[1782]:223) in the 1780s, the excavation of which is often seen as the first example of scientific archaeology. Intriguingly, Dowel Mountain is approximately halfway between that mound and another Monacan mound in Orange County (Dunham et al. 2003).

Through all of prehistory, indigenous groups used local stone for tool-making, particularly quartz as it could form a sharp edge. However, while it is very hard, it is also brittle and fractures unpredictably, leaving most projectile points, knives, and scrapers small (under five or so centimeters) and asymmetrical. Greenstone tools are rarer, but would typically be made into larger, smooth groundstone axes, celts, and other tools, presumably for woodworking or agricultural use (Holland 1978). As both of these rocks could be locally sourced, all Monacan and pre-Monacan artifacts found in the research area are of these materials.

During the seventeenth century, the Southwest Mountains were too distant and too deep into native-held territory to merit much exploration. It wasn't until 1716 that Governor Alexander Spotswood led his Knights of the Golden Horseshoe Expedition across the Blue Ridge to explore the Shenandoah Valley; the route they took involved following the Rapidan River around the northern end

of the Southwest Mountains range in what is today Orange County (Woods 1901:1). Following this formal reconnaissance, the region became more attractive to colonial eyes.

The first European settlers arrived in the area in the late 1720s, staking claims along the few navigable waterways in the area. The early plantations clung to the eastern slopes of the Southwest Mountains, and along the Rivanna, which provided transportation into the interior (Woods 1901:6).The mountain range, though far from impassable, still proved a delay British colonization on to the west. These were essentially the first significant topography moving west from the Chesapeake, and travel beyond them was hampered by limited routes of passage: for instance, there are only three passes in Albemarle county between the Rivanna and Orange County (Woods 1901:15). It wasn't until nearly 1740 that significant settlement began west of the Southwest Mountains (Woods 1901:6).

Most of the colonists came from the Tidewater region to the east, and were predominantly American-born settlers of English extraction (Beeman 1984:4). However, at around the same time (the 1730s and '40s), a secondary wave of migrants was moving down the Shenandoah Valley to the west. These were largely the so-called Scotch-Irish, displaced settlers from the borderlands of the Ulster Plantation in Northern Ireland. Along with them came lesser numbers of German Mennonites and Amish. They had mostly arrived to the colonies via Pennsylvania, and finding the good farmland there mostly claimed already, set out to find other lands to plant. The Great Valley of Virginia provided just such a place, and as their population moved farther south, a few of them slipped back east over the Blue Ridge (Woods 1901:2). This meant that, while Albemarle and neighboring counties counted mainly people of English descent as their population, there was some diversity from the onset of settlement.

Of course, not all of the original settlers were the white men of recorded history. It appears that

the Monacans had already abandoned the area by the eighteenth century, possibly due to increasing conflict with the Iroquoian-speaking Mannahoacs to the north, but they were still known to travel through the area on occasion (Hantman & Gold 2002:274). Thomas Jefferson (1984[1782]:226) recorded in his *Notes on the State of Virginia* that a group of Native Americans, presumably Monacans, visited the mound he excavated as late as the mid-1700s:

> "a party passing, about thirty years ago, through the part of the country where this barrow is, went through the woods directly to it, without any instructions or enquiry, and having staid about it some time, with expressions which were construed to be those of sorrow, they returned to the high road, which they had left about half a dozen miles to pay this visit, and pursued their journey."

It is also likely that there was some intermarriage between white settlers and Monacans that was left out of the contemporaneous histories.

Additionally, by the time formal settlement began in Albemarle county, chattel slavery based upon a racialized hierarchy had entirely supplanted the previous style of indentured servitude (Koons & Hofstra 2000:ii). Presumably, many of the people working the land in the 18th and 19th centuries were not willing settlers at all, but black Africans and African-Americans forced to do so. Indeed, by 1885, out of a total population 32,628, there were 700 more people listed as "colored" than "white" in Albemarle County (Harrison 1886:89). These are almost certainly the descendants of enslaved persons, and barring a large demographic shift in the two decades following the Civil War, these numbers can be used to infer roughly equal numbers of free whites and enslaved African-Americans in antebellum Albemarle.

The influx of settlers and growth of population was relatively slow—as late as the 1760s there were only about two marriages per year in Albemarle—and the area was largely considered a cultural

backwater (ACHS 2012). Beeman (1984:14) writes that the region of Virginia west of the fall line "remained nearly untouched by the political institutions of eastern Virginia, the economic arrangements of the Chesapeake tobacco economy, or the influences of European immigration." The uplands of the Piedmont and the Blue Ridge existed at the periphery of Chesapeake consciousness, and lifeways there necessarily took a different form than life in the lowland Tidewater. Tobacco grew poorly or not at all, it was difficult to find transportation to regional markets (let alone what civil society there was in Williamsburg), and the whole area was hilly and well-forested. For the colonial authorities to the east, the entirety of the uplands constituted "a rude wilderness that needed to be tamed and mastered" (Beeman 1984:14).

However, the forests were quickly logged for valuable timber and then planted over as settlers searched for alternatives to tobacco to keep their farms afloat. At least at the beginning, ranching proved the most viable option: "the raising of livestock was a sensible solution to the problem of subsistence in a land-rich, labor- and transportation-deprived frontier area," not least because animals could walk themselves to distant markets through trackless woodlands (Beeman 1984:35). However, by the nineteenth century it had been discovered that other food crops, especially wheat (but also maize and vegetables) could grow well, and in many places woodlands were entirely cleared in order to create space for farming (Koons & Hofstra 2000:i).

Eventually large plantations developed in the region—most notably Thomas Jefferson's Monticello. By the turn of the nineteenth century, Albemarle and neighboring counties showed a mix of large-scale landownership (plantations owning many thousands of acres and often hundreds of slaves), subsistence farmers and ranchers, and a small bourgeois class in the few market towns such as

Charlottesville, Scottsville, and a few places in the Shenandoah Valley (Woods 1901:39-43). The region eventually managed to reverse its backwater status to become a significant player in cultural and political life of the young republic, not least due Thomas Jefferson's creation of the University of Virginia outside of Charlottesville (Woods 1901:88).

During the early periods of settlement, development understandably focused on the flatlands near waterways, where it was easier to run a plow. Steeper areas, particularly the Blue Ridge, but also the Southwest Mountains, were comparatively ignored, being seen more as a source for timber than anything else. Those who did farm the mountainsides often did so for a few years until the thin soil was exhausted, before abandoning them and moving westward (John Shumate, interview, March 15, 2013). Still, some people did attempt to form longterm residences on or near the mountains. Indeed, perhaps the best known site in the Southwest Mountains is Thomas Jefferson's home, Monticello, a large plantation quite literally on the peak of the homonymous little mountain. James Madison's Montpelier and James Monroe's Ash Lawn plantations are at the base of the range, as were the birthplaces of George Rogers Clark, Meriwether Lewis, and Zachary Taylor.

In the 19th century, the mountains were continuously logged and farmed, and slowly developed, a trend which persisted into the 20th century. This is not to say the rural economy remained the same; different agricultural products had different values through the decades, particularly in the last hundred years. The wheat economy flagged after a century or so in the late nineteenth century, leading to today's diversity of farm products. As Koons and Hofstra (2000:xiii) phrase it, "in the 1890s, fruit, poultry, and livestock began to replace wheat as the most productive and dynamic elements of the [Shenandoah] valley's economy." Albemarle and neighboring counties seem to have followed a similar trend, and are

today known more for cow pastures, vineyards, orchards, and vegetables than grain crops. As people began finding a profitable diversity of uses for rural land (rather than being economically incentivized towards a single cash crop), it became easier and more cost-effective to settle in montane areas.

Today, the Southwest Mountains are a mix of forests and farms (in the bottomlands) interspersed with infrequent houses, ponds, power and communications lines, and roads. It was only as people stayed put for longer and large landholdings were subdivided that significant investment took place, meaning that most known sites of development date to more recently rather than earlier.

Although the literature has largely ignored stone mound construction in early settlement and post-colonial circumstances, some aspects are obvious. Most clearly, someone farming land desires to produce as many calories per acre as they can. Be it for fruit-producing orchards, plowed land for ground crops, or grass for livestock to feed on, having rocks in the soil can prove detrimental to maximizing productive value of land. Early on, a farmer might pick up a rock by hand and throw it onto a pile along the woodsline, slowly building significant concentrations. Someone with more time might have used animal power to remove larger stones than could be easily carried. After the arrival of combustion engines and heavy machinery (particularly tractors in the early 20th century), it became a manageable task to remove ever larger quantities of rocks from fields, not to mention larger individual stones.

The other main economic reason for stone removal in a modern context was for development of the non-agricultural mountainside, particularly for clearing roadways. For the most part, loggers needed to do so in order to make it possible to transport timber out of remote locations. Indeed, Echo Valley resident and local historian John Shumate claims (interview, March 15, 2013) that before the arrival of

motorized vehicles, inefficient transportation was such an issue that loggers would often bring the mill to the trees, rather than vice versa. Processing trees on-site meant that only high-value, refined materials had to be moved to distant places, preventing prohibitively expensive transportation costs. Even so, moving in and out of montane areas was a difficult task, and smoothing roadways was an important activity to maintaining safety.

Research Area Overview:

The area studied is centered around Dowell Mountain, although Dowell itself doesn't have any cairns anywhere near its summit. Rather, it provides a focal location that has a preexisting name, allowing easy identification of the area. In order to understand the survey zone, a few local terms need to be defined. The first is Echo Valley, so named because parallel ridges allow impressive acoustic amplification of sound, so a shout or a dog's bark can be heard for over a mile. This valley runs south into the Southwest Mountains on the eastern flank of Dowell and ends in a bowl with two large, man-made ponds. Southeast of Echo Valley sits Peter's Mountain, the tallest peak in the range and home to a mysterious high-tech installation. Due west of Peter's Mountain and south of Dowell sits an unnamed peak whose summit is home to most of Site C of the cairns. South of both this mountain and Peter's is Turkey Sag, one of relatively few passes through the Southwest range. West of the Site C mountain is Hinson Hollow, a small, partially-cleared valley that is really only home to several streams and a small pond.

Echo Valley and Turkey Sag contain the only maintained roads, although there are numerous unkempt logging roads crossing through the woods in the hillsides. Additionally, there is an underground

telephone line that cuts from the northeast across the western side of Dowell Mountain, before an offshoot appears near Hinson Hollow and cuts across the C Site mountain directly to Peter's Mountain. The buried line has a 30 foot wide clearing around it, presumably to prevent natural forces from damaging the cables underground.

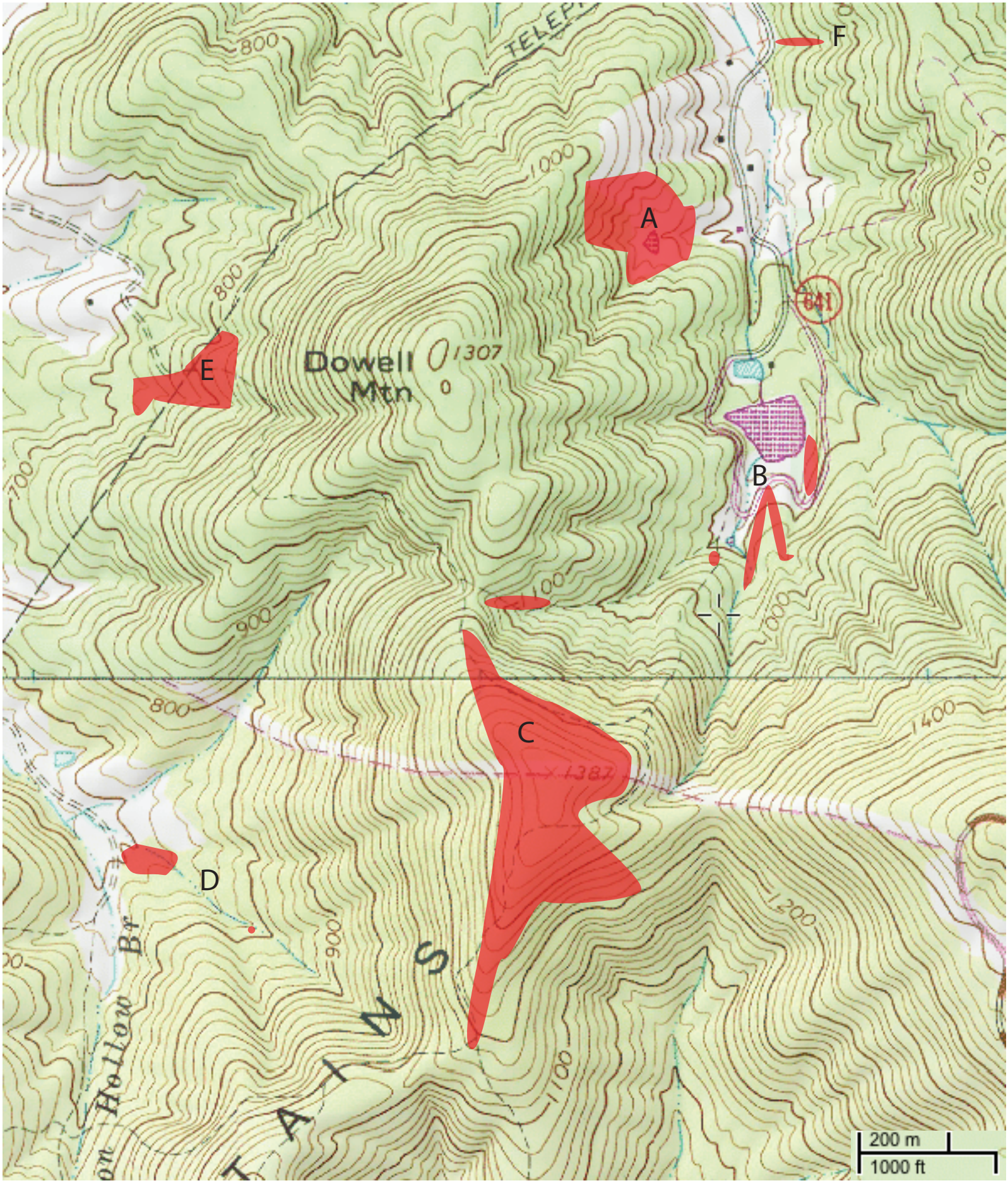
There are arguably six distinct areas with heavy concentrations of lithic construction, all between roughly 2,000 and 4,000 feet from the summit of Dowell Mountain. These I named sites A through F, starting immediately on the northeast flank of Dowell and circling clockwise around the peak. Some discretion was taken in defining the exact areas of these six sites; notably, there have been many recent (since 1980 or so) stone constructions that don't offer much pertinent historical insight near to the older cairns and walls. These include mortared constructions, along with unmortared walls around houses and gardens, animal pens, and fields obviously cleared by bulldozer in recent decades. There were also a few stone piles that may be natural in origin and were not included, as well as a few walls between sites A and B that have had their original context so corrupted that nothing much can be said about than other than that someone built them. Even with these exclusions, there were still roughly 600 constructions to provide important data.

There is a large diversity of architectural styles among the cairns. All six of the sites contain multiple specific designs when compared to each other and within themselves. These cairns, walls, and other mounds are typically made almost entirely of greenstone, although two of the cairns (both on site A) can be said to be majority quartz in construction. Additionally, there are often distinct zones within the sites that can be defined in a variety of ways: either the form of the stone constructions (walls versus cairns), their environmental context (in a field, along the edge of the woods line, within the forest, or in

an intermediate area that has either been partially cleared of trees or a clearing that has partially regrown), or their topographic context, such as on high ridges, on flatlands, or in riverine depressions.

As on overview, Site A is on the immediate northeastern flank of Dowell Mountain in Echo Valley, and comprises several different settings of cairn construction. The first is in cleared or partially-cleared fields, or on the boundary of those fields with the forest. These include several large cairns made with massive stones that clearly required heavy machinery for construction, and the only two cairns in the entire survey area comprised mostly of quartz. The second zone at Site A is mostly in one small hollow uphill to the west of a pond and most of the cleared fields; the nine cairns here start perhaps a hundred feet beyond the woods/field boundary, and are relatively uniform in construction. There is also a chain of six walls in a partially cleared zone just to the north of the woods cairns; these walls also appear to have a few cairns in association with them.

Site B is centered about 1,500 feet to the southeast of the A Site. Again, there are a few distinct areas, although the construction is similar across them all. The first zone, in a narrow strip of woods perhaps 40 feet wide separating a dirt road in the woods from a lake and field, contains a dozen loose cairns. These are relatively close together, and appear to have had little effort put into their construction. Another several hundred feet away, the majority of the B site cairns are located at the edge of and within the woods to the southwest, at the terminus of Echo Valley. These are loosely organized into the shape of relaxed V, the point facing northward. These 80-odd forest mounds are of similar construction to the others in the A and B sites, but in much greater proximity; often they are less than ten feet apart, and on occasion they are so close their borders are hard to determine. There are additionally a few more cairns to the west, several of which appear to have needed machinery to construct.



Master map showing areas of significant cairn and stone construction concentration. There are six distinct sites, some of which occur in multiple unconnected zones. USGS topographical base, Barboursville and Keswick, Virginia quadrangles.

The C Site is by far the largest, both in terms of area and number of mounds. The first section occurs in a hollow moving west and uphill from Site B. There are roughly a dozen small cairns situated parallel (but not adjacent) to a rough loggers' roadway. Following that roadway another hundred feet farther west and uphill, and then turning southwards, site C proper begins. Unlike with the other cairn fields, site C is situated on the top of a mountain—an innominate peak that is actually some 80 feet taller than Dowell Mountain. There are somewhere around two hundred cairns here, spread over several acres, both on the relatively flat summit and descending down the southeastward slope. These range in size from some of the largest seen in the survey at over five feet tall and a dozen feet in diameter, to small, loose piles in no particular configuration. That being said, these essentially appear to all have about the same age and perhaps the same reason for construction, and the multiple sizes and designs intermix too much to distinguish any distinct areas of construction.

Continuing westwards, Site D is primarily several dozen small, low mounds in the woods at the eastern end of Hinson Hollow. These are all about the same size and style, and appear to have been constructed at the same time. They are mostly quite near one another, and appear to determine the edge of the field. There is an additional, solitary cairn several hundred feet to the east that is distinct from every other cairn in the survey, although it appears recent.

To the north, along the western flank of Dowell Mountain, is site E, which has several different zones. The first is two long walls in a depression near nothing but the telephone line clearing and an old logging road. A bit to the south is a stone wall along the edge of a small brook, which serves to both keep the stream in its course and create a large flat area of perhaps half an acre. There is also a deep, steep hole dug right below the stone wall. To the west, across the telephone line's clearing, is a large

area of many apparently recent walls and cairns in good condition. Interestingly, although these constructions are all in great proximity, there isn't much apparent logic to their organization, although the walls are generally parallel and some of the cairns line up with them.

Site F was discovered at the end of the on-site survey, and begins another 2,000 feet northeast from Site A. Due to not having permission to enter the land, a lack of time, and the fact that (with the exception of one zone) the cairns there all appear roughly identical to one another and run parallel to both the telephone line and logging roads, there is little mystery as to their origins. The one exception to this is a system of is seven cairns, four of which appear rather recent, in a riverine depression immediately adjacent to the Echo Valley road. These appear evenly spaced at about 20-30 feet apart and were either constructed in two distinct phases, or the ones farther to the east have been degraded for some reason.

In proximity to these cairns I found the rusted-out body of a car, it's style indicating antiquity, probably from before the 1950s. Indeed, nearby were two tires produced by the Seiberling company, which was only in business from 1921 until the 1950s, confirming this date. There were also two bales of wire mesh fencing and a nearly disintegrated metal can nearby. Because of the limitations expressed above, along with the fact there was little more to be learned from Site F, no additional study was put into the area.

Specific Zones:

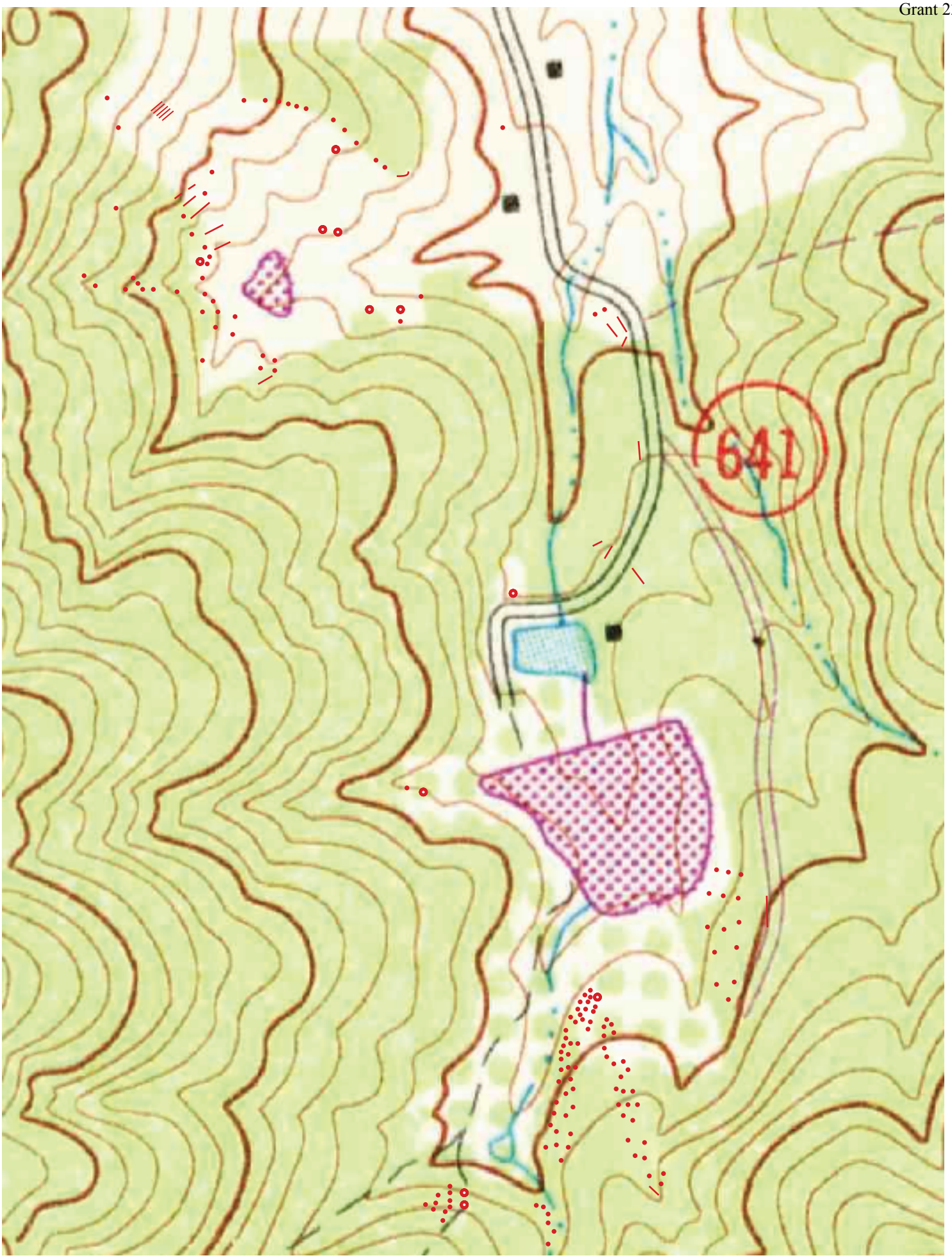
There are a number of different sites that show the diversity of techniques and methods used in construction of the stone mounds within the survey area. In order to provide complete data for the discussion of these cairns, more description needs to be shown than what was provided above. In

particular, the architecture, context, and proximate artifacts of the different zones of cairns provide a much more complete picture of their constructions.

Site A:

Starting with Site A, there are many distinct constructions of interest. To begin, this is the only site in the survey area where there was systematic cairn construction within cleared fields, as opposed to only at the edge of them. There may be multiple reasons for this, including that perhaps the woods line was simply too far away to make the transportation of the cairns' constituent stones worth the time and effort. Another is that there might have already been stones where the cairns are today: either large, natural ones partially exposed above the soil that would have been impossible to move, or possibly pre-existing cairns from before the fields were cleared that were simply expanded upon rather than dismantled. If there were already cairns in these fields that have simply been added to over time, they may represent one of few areas of potential indigenous construction activity. But whatever the reason for their construction, the three large, central-field cairns here, along with some similar ones that appear along the woods edge, appear to have similar ages and construction techniques, as indicated by moderate lichen overgrowth, high rectilinearity of the walls, and the constituent stones having a relatively high volume. However, next to at least two of these cairns certain very large boulders appear to have been pushed into place with heavy machinery, indicating that preliminary construction began before this technology was available for use.

Additionally, in proximity to these cairns there is evidence of land use for extensive economic output. Most notably, the fields are cleared, and according to USGS maps have been so for at least 70 years. There are also discarded metal machine parts on or adjacent to the cairns to the west and south



Sites A and B. Small circles represent typical cairns, large hollow circles are larger. Purple items constructed between 1964 and 1978. USGS topographical base, Barboursville Virginia quadrangle.

of the pond at the west end of the main field, which appear to have once been parts of a tractor. There are also the remains of fencing, both strictly barbed wire, and a mixed style where a loose wire mesh fence had a line of barbed wire placed above it. This fencing is still attached to certain trees on the south edge of the field which have actually grown around it, indicating that while it is many decades old, it is not so much so as to have completely rusted away, or for the trees used as posts to die.

There is also a system of five partially interred tree-trunk posts to the west of the pond, near a spring, where one line of barbed wire was connected to the posts using vinyl attachments, making this arguably the most recent example of fencing, probably in the 1970s. These fences were clearly meant to restrict animal movement, possibly indicating the use of the land for ranching purposes. However, there is also a single, massive apple tree with a diameter of over two feet in the field below the pond which may have been part of a larger orchard (there are also three other, smaller apple trees likewise planted before the present owners bought the land), so perhaps the fencing was actually designed to keep foraging animals out, rather than domesticated ones in. Intriguingly, the main, old apple tree may be roughly a century old; at the very least, its size indicates that it was planted before dwarf apple trees became popular in the mid-20th century.

There is also evidence that these cairns, which constitute the majority of Site A's constructions, were built in the context of not only economic concerns, but domestic ones as well. While there was clearly an economic function to the land use, there are also sites indicating other purposes. Namely, the spring that feeds the pond was expanded and its source walled in with loose, large stones, presumably to ensure water quality. This would not be a high priority were the land used strictly for agricultural purposes, although it is not impossible for a farmer to have made this investment anyway. However,

about 20 feet uphill from the spring is a large cairn in good condition and of quality construction, adjacent to a short flat surface probably used as a road. On and near this surface and the cairn grow several dozen daffodils, several hundred feet from the nearest plants of the same species. Gardener and landscaper Dave Phipps (interview, March 16, 2013) believes this is too far for them to have spread naturally, indicating that they were consciously planted there. This apparent appeal to aesthetics makes the most sense for someone seeking to beautify the area around a house, rather than for someone solely exploiting the land for economic purposes.

Additionally, one of the several trees growing next to one of the large cairns within the cleared fields is a chestnut tree, as evidenced by the spiky casings of its fruit being found upon the cairn. While an indigenous chestnut or its offspring potentially could have survived the blight and be present here after nearly a century of existential threat, it is immensely unlikely. Much more probable is that someone planted a blight-resistant Chinese specimen, either solely for its fruiting potential, or perhaps as a reminder of how the forest landscape used to be. Either way, this is a conscious planting, similar to the daffodils, where the purpose is not economic but related to domestication of the landscape. Indeed, to the northeast at the woods line of the same field there was found a shard of milkglass (essentially glass made to look like high-quality ceramics) that appears to be the lip of a bowl, plate, or other domestic serving vessel. With the possible exception of someone breaking a plate during a fancy picnic out in a field, this is almost certainly evidence of a domestic landscape, at least in addition to the economic usage of the same space.

There is another area, possibly related to the cleared fields, uphill to the northwest of the pond. The most striking feature of this zone is a system of six walls extending across the depression created by

periodic water flow, although there are several cairns in association with the walls as well. This is set in a partially wooded area with true woods to the southwest, and open fields to the east and northwest. USGS maps indicate that this area was cleared as recently as the 1970s, so it seems probable that the partial forestation is actually due to the land around the walls being allowed to regrow.

These walls may in fact be from the same occupational period as the other cairns in and around the fields to the east and southeast, or at least they indicate that someone was seeking to maximize economic output of the land along the same lines. However, there is a paucity of artifacts in the area, including a lack of fencing, so the exact nature of the walls and the nearby cairns is unknown. What can be confirmed is that the walls were all built around the same time, do not attempt to regiment the natural landform as much as would a terrace, and seem to indicate an extractive mentality, be it creating a partially flattened area for cows to graze, slowing water flow as a form of irrigation for an orchard or vineyard, or something else. There are several cairns nearby, both in the partially cleared area and along the woodsline, but these are of loose construction and have been partially depleted for use in actual terraces in the recent (late 1980s) garden to the northwest, leaving little information to be gathered about them.

The other significant organization of stone constructions at Site A is essentially unlike any other in the survey. The cairns here are well within the woods uphill from the pond. The depression most of them are in runs almost perfectly east to west. There are either seven or eight cairns in this main array (one might actually be a highly-organized natural formation), and one additional one in the depression to the north. These cairns are all about two or three feet in height, more or less circular and between four and nine feet in diameter, and made of stones that, even at their largest, could be lifted by two fit people.

They tend to be separated by about 40-60 feet. Importantly, while the ground surrounding the field cairns is cleared of stones (and thus emphasizing the area's purpose in economic productivity), the woods cairns sit among many other stones, apparently undisturbed from the soil.

The exact purpose of these cairns is unclear (again, I found no diagnostic artifacts in the area), but their similarity to one another indicates they were all made for the same purpose. In other areas, small, deep-woods cairns like these have been found adjacent to logging roads (Sites B and F) and in areas that were once clearcut and used for agriculture, but have since regrown (Site C). Neither is indicated here. Likewise, their presence near the streambed at the bottom of the steep depression is unusual, with only the few cairns at Site F appearing in a similar circumstance.

Additionally, running along the side of this riverine depression is a narrow, flattened area, much like a roadway but only two feet wide. This runs for hundreds of feet from well above the cairns to the west to roughly even with the easternmost stone mound, where it diverges into two paths which bend northeast and southeast, before disappearing into the field. This could be anything from a rare uphill deer trail that has been reinforced by natural weathering over the years, to a path used by early loggers where a mule would drag a single tree trunk, to a footpath created by humans. Whatever the origin, the path is unlike anything else in the survey area, except for perhaps two depression across Dowell Mountain at the E Site.

Even more arrestingly, when walking on this apparent pathway just below the westernmost cairn of this assembly, there is an agglomeration of three rocks in the soil that may form a human effigy figure. The nearby cairn is the largest of the group, in the best condition, and offers a clear view of the other cairns in the depression below. The possibly-human figure is three large stones arranged rather like a

capital T, with the uphill rock near the cairn containing a nose-like ridge, wide forehead, and a narrower jaw, and the other two, downhill and adjacent to one another, appearing like shoulders or a chest in context with the face. However, the illusion fades somewhat upon leaving the pathway, and there is no evidence of superficial alteration to the stones; only their natural shapes, arrangement, and orientation imitate a human face and torso facing downhill.

This array of cairns is a mystery, both in purpose (apparently non-economic) and origin (although architectural style, lichen growth, and degradation indicate they have been around for a long time). Coupled with the possible path and effigy features, east-west alignment, and distinct architecture, these make a good case for being a spiritual or otherwise non-economic landscape. However, without any artifacts found and the dearth of other information, there is little substantial that can be said about the area.

Site B:

Site B consists of three distinctive zones, although all three resemble each other. The first is an assembly of 13 low, loose mounds in a strip of open woods between a field and a pond constructed around 1970, and a dirt road. These are about 30 apart from one another in an almost grid-like pattern. They appear rather recent, and are probably related to the construction of either the pond or the road.

The second zone is similar, but somewhat more interesting. There are roughly 80 small, closely placed cairns arranged in the shape of a loose V, its point facing northwards. This point actually extends into the nearby field, causing the clearing that might otherwise have been more triangular in shape to also appear as a wide V. This indicates that the cairns may have been in place before the field was cleared, but there is no way to be certain.

There are two loose tractor roads by the cairns, one following the eastern edge of the eastern wing, and the other coming through the cairns near the point and following along the western edge of the same. These appear to have either been constructed by loggers or a farmer with a tractor, based on the condition of the roads. One option is that these are very old logging roads and were used to transport the stones for the cairns at some later date; the alternative is that the roads were actually put in to allow for easier cairn construction.

The cairns themselves are relatively small and low, and all appear to have a similar age. There is also a small wall in a streambed at the southeastern tip of the V. Several of them appear to have been bulldozed together at the northward point of the formation, indicating that they were probably built before there was much heavy machinery, and someone coming along later tried to relocate them, possibly to expand the field. However, the most logical source for the cairns' stones is actually from the field, so the two must have been constructed simultaneously to some extent.

There is also a small pool of water dug near the eastern point of the cairn formation. This is almost certainly man-made, and appears to be intended to slow and collect water from a naturally occurring stream. There are also several metal pipes nearby, all of them many dozens of feet long. The explanation for these, as explained to me by the landowner, Spencer Young (interview, April 7, 2013) was that local legend tells of the previous tenant using the area for moonshine production, and that the pipes may be part of that. While this is tenuous data, the idea that he "made enough moonshine to fill one of the ponds" is certainly entertaining (Young). Intriguingly, it does appear that the field was used as a peach orchard before the larger pond's construction, which very well could have provided raw sugars for fermentation. (Moonshining is expounded upon further in the analysis of Site E).

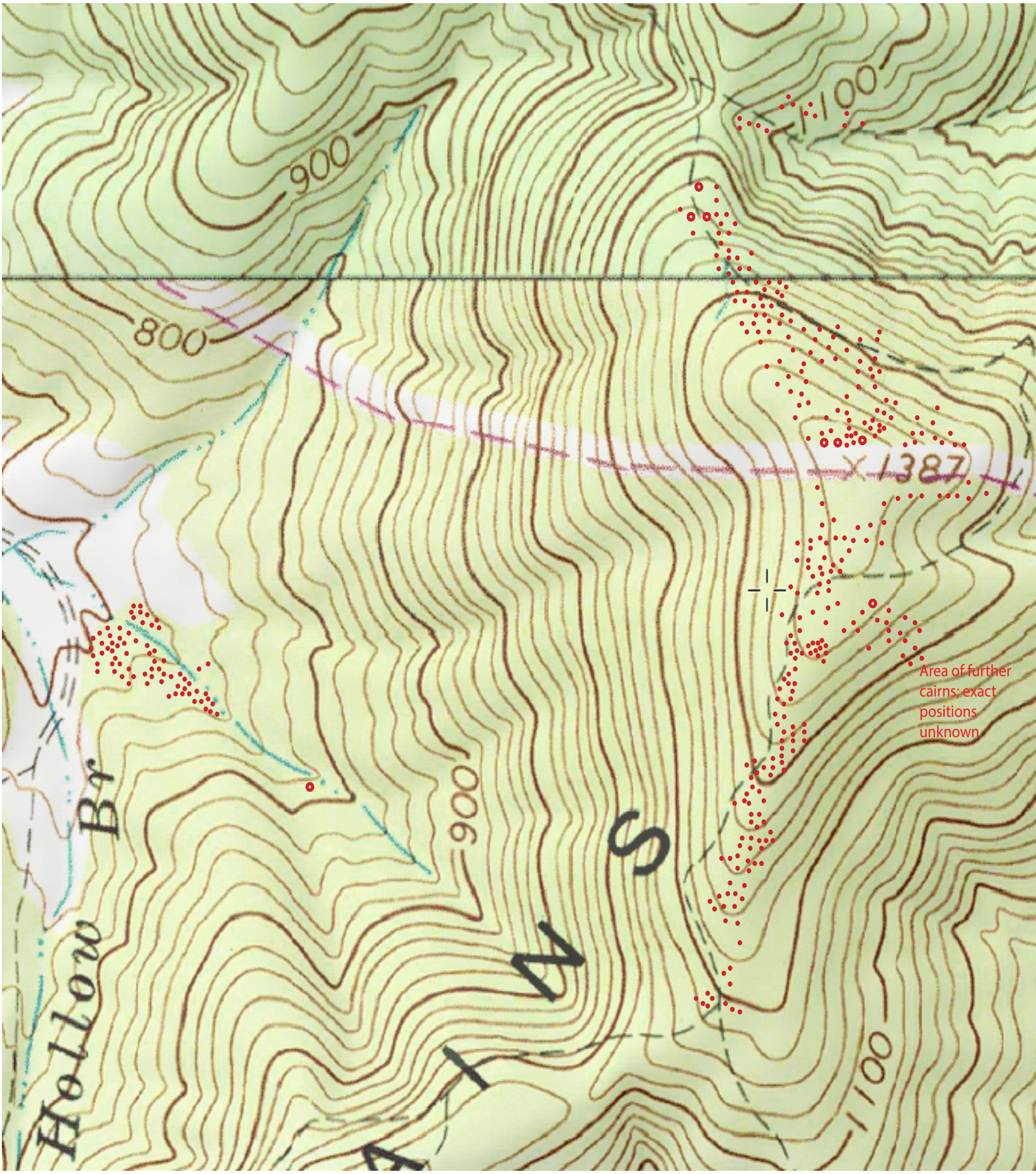
The third section of Cairns is a short distance to the west, along and actually within a streambed. These appear to have no logical order and potentially could have been produced naturally by immensely powerful flooding. At least, if they were humanly constructed, the constituent stones are so large that it could only have been after the advent of the tractor.

Site C:

Site C has two main sections, the first of which is a few hundred uphill to the west of Site B. Here is an assembly of about a dozen cairns, although some of these may actually be natural. They appear near, but not actually adjacent to, an old road that crossed the mountains at the saddle another hundred feet to the west. The cairns are all rather small and simply constructed, and though they are probably associated with the construction of the road, the fact they most of them are uphill from it and on a steep slope seems like poor planning as they could easily collapse and roll down onto it. Either way, no artifacts were found in the area, so if they were built for some other purpse than clearing the road it is not known.

The main body of Site C is uphill, on the peak of a nameless summit almost due south of Dowell Mountain. Site C is difficult to analyze for several reasons. The main one is that it covers so large an area that forming an overarching mental picture is nearly impossible. There is also a large diversity of styles, from many cairns as small and loose as those from Site B to a few that are absolutely the largest recorded in the survey. Unfortunately, these all appear around and proximal to one another, making it difficult to discern any sort of pattern.

USGS data indicates that this peak was cleared for many decades up until the 1970s, and it is obvious when standing there today that the forest has not yet fully regrown, choked as it is with



Sites C and D. Small circles represent typical cairns, large hollow circles are large cairns. More constructions are known to exist to the east, but their exact locations are unknown. USGS topographical base, Barboursville and Keswick Virginia quadrangles.

underbrush and conifers. The deforested area roughly corresponds with where the cairns are found today, rather than them being built outside the clearing. This indicates that the peak was arguably not plowed on a large scale, but used either for grazing animals or perhaps for small crop beds (which is unlikely as there is little flat ground without a cairn on it). There is some evidence of fencing along the western edge, implying that someone wanted to keep animals either in or out.

The other important feature along this peak is an underground telecommunications cable running through the center of a 30 foot wide cleared zone. This crosses directly over the highest point of the unnamed mountain and connects to Peter's Mountain, another few thousand feet to the east. USGS maps show that this line was constructed between 1978 and 1984. There are no cairns within the cleared zone. This indicates that preexisting cairns were relocated to outside this zone, and possibly that many of the nearby cairns are actually made from stones excavated during the burial of the cable. Either way, this underground cable indicates a second use of the site that in some way resulted in the construction of new cairns, but unfortunately these cannot be differentiated from any preexisting ones.

Site D:

Site D is in the bottomlands of Hinson Hollow, over half a mile to the west of Site C. These nearly 60 cairns somewhat resemble those of Site B: they are small (if well-constructed), closely spaced, and appear to define the woodsline, rather than being behind it. Indeed, these cairns are in the woods, but on very flat ground immediately between two constantly flowing streams, which would probably make for excellent agricultural land, so it may be that the cairns actually predate the clearance of the area. They all appear to be the same age, although the data is conflicted over what age they might be—the lichen overgrowth and small size of the constituent stones indicates antiquity, whereas the even spacing,

large height to diameter ratio, and good construction technique imply they are more recent. Their proximity to a cleared field and intact fencing also point towards them being recent and involved in the clearance of said field, but the fact that they occur in what would make excellent farmland means that they may well predate the field. As such, their origin is something of a mystery, but I think it unlikely that they were constructed before the arrival of Europeans.

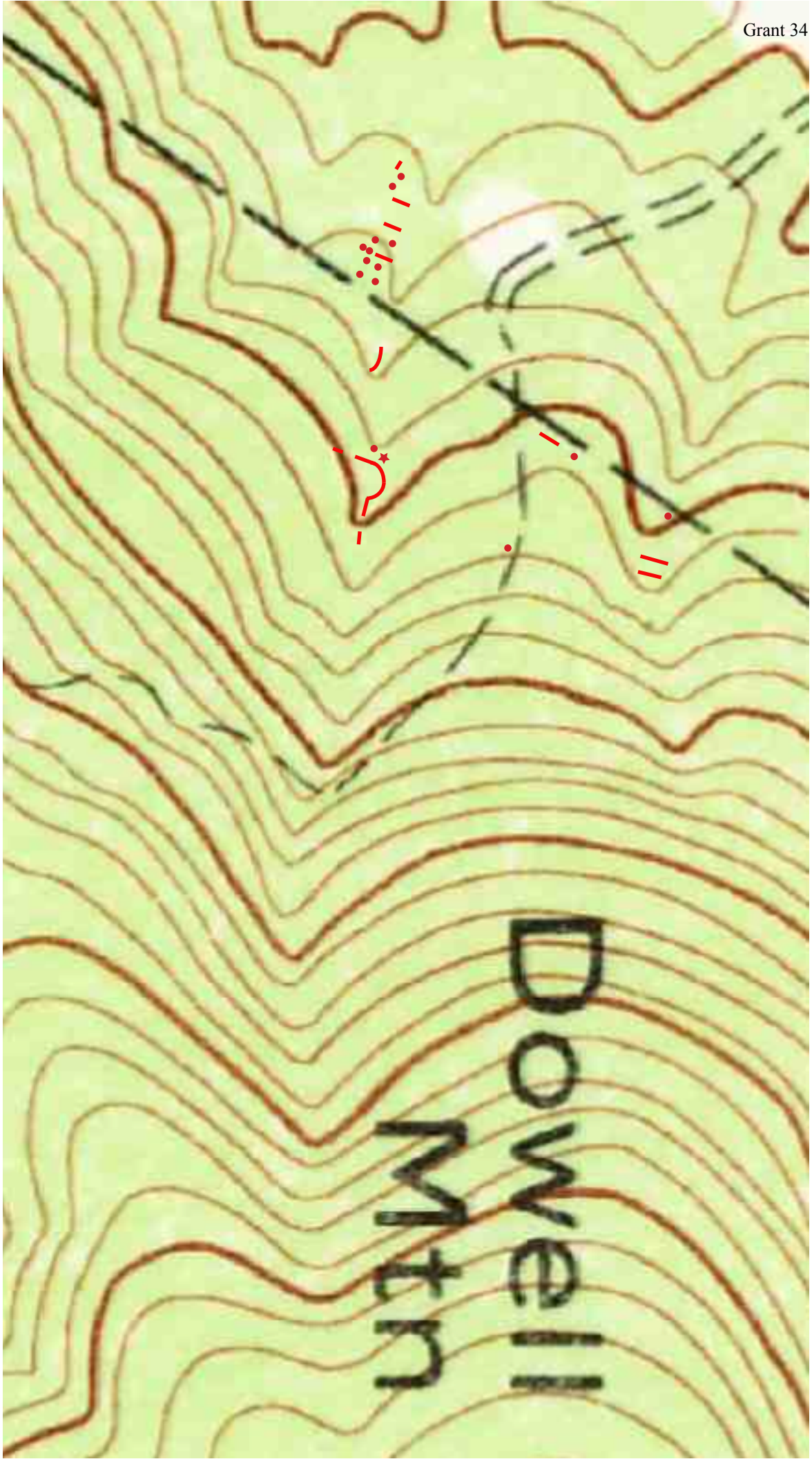
There is an additional, solitary cairn a few hundred feet upstream from the main body of Site D. Its exact origins are unknown, but it is very tall and narrow, has little lichen, and the constituent stones are predictably organized, indicating that it is of recent vintage. Why it is where it is, with no artifacts or even roads nearby, is a mystery.

Site E:

Site E, due north of Site D and on the western slope of Dowell Mountain, offers a variety of constructions for analysis. The first zone is two long walls cutting across the center of an erosive depression, and intermediate between the area cleared for the telephone line and an old logging road. These walls are somewhat cruder than those at Site A, are beginning to collapse, and may indicate even greater age. Certainly the woods around them are thick and give no indication of having been completely cleared in at least half a century if not a whole one, so these walls may be quite aged indeed. However, other than the logging road two dozen feet uphill, there is no other sign of human activity in immediate proximity, leaving them rather mysterious. All that can be said for sure is that someone put a lot of time into their construction, and that it was probably done for economic purposes.

The second area in Site E is unique to the survey area. To begin, there are also two mysterious depressions terminating at the stream just below this site. They are narrow, perhaps two feet across,

Site E cairns and walls. North is to the right, west is at the top. Circles are small cairns, lines are walls. The star represents a deep pit.



and run parallel through the woods for a ways before dividing and continuing separately for many hundreds of feet towards the top of Dowell Mountain. Like the possible pathway at Site A, these depressions ignore natural waterways and seem to make their own way uphill, indicating either human or animal origins. A logging road actually cuts across them, indicating that they predate its construction. Unfortunately, as there are no artifacts found in association and no way to date them other than that they are older than the constructed road, they remain enigmatic.

The main part of this zone comprises a long wall (about 175 feet in length) that shores up the side of a persistent stream flowing out of the mountainside, before turning away to continue inland on its own for a ways. From the east, it looks rather like a question mark. Additionally, at the eastern, uphill terminus of this wall, there is a gap of ten feet before a smaller stone wall continues for another 15 feet. At the other end, there is another gap of ten feet before the appearance of an earthen embankment. These ten-foot gaps have the appearance of a motor vehicle roadway, giving an idea as to both the age and possible purpose for the site—20th century, and somewhere that needed good access to transportation.

The area partially encircled by the long wall and its two extensions is essentially flat and creates an area of about half an acre without significant tree or stone disruption. Immediately below the wall, and next to the stream, is a large pit. This excavation is nearly six feet deep (and has likely filled in to some extent since its excavation) and 14 feet wide from lip to lip. There is no definite explanation for its existence, but there are many possibilities: underground storage, as per an icehouse, use as a longterm latrine, a water cistern, or for mechanical purposes, such as facilitating the loading or unloading of a vehicle. It even bears some resemblance to 19th century hand-dug copper mines I have witnessed in the

Blue Ridge mountains.

Whatever the purpose of the pit, it is clearly in association with and probably the same age as the wall and flat ground next to it. While this may have been used for farmland or other agricultural purposes, another possibility exists. The good, constant flow of fresh water and unsloped surface may have been ideal for a housing site, as it would be easy to build a house and stay hygienic. The roadway would have made it easy to drive in and out, and the few artifacts found on site include remains of glass mason jars and other (probably domestic) storage items.

However, an even more interesting situation may in fact be the case. Based on the growth of trees around the site, the construction of the walls and subsequent lichen overgrowth, and the artifacts in the area, the site was constructed in the first half of the twentieth century. The constant flow of water, coupled with the relatively remote location and good road access, may in fact indicate the site's use as a moonshine distillery. This would account for the approximate age of everything (probably the 1920s or 30s), the types of artifacts found, the proximity of the stream, and the total dearth of evidence of a building—if a still had been installed there, it would not have needed permanent housing, and would have been valuable enough to remove or resell upon the end of prohibition. This may even explain the presence of the pit, possibly for storage of fermenting or finished moonshine, for storing water, crops, or other ingredients, or for lighting fires below the actual still.

While moonshining has achieved something of a legendary status in central Appalachia, it was present in remote areas throughout the country, including this part of Virginia (Spencer Young, interview, April 7, 2013). Before prohibition, it functioned as a means of preserving the harvest of a crop beyond what otherwise might have been possible—rather than being allowed to rot, conversion of

crops like corn or peaches in to alcohol would allow them to conserve calories and remain valuable for months or years afterwards. Upon the introduction of the 18th Amendment and the outlawing of alcohol, moonshine suddenly became much more economically viable in the black market, and many farmers either built or moved stills they already owned to remote locations, so as to avoid detection (Young). This business, though potentially risky, could be immensely profitable, and many poor farmers, especially in mountainous regions, embraced this as an opportunity for economic advancement.

That being said, there is no direct evidence that this site was used for the purpose of alcohol production; it is simply an explanation that can explain all of the data known about the area. It may well be that the site was strictly domestic or used for some other purpose, but the idea that this was used as a whisky distillery is intriguing, fits all information so far discovered, and cannot be easily disproven.

The third section of Site E is likewise rather enigmatic. Following the stream that runs adjacent to the wall across the telephone line clearing, this zone is on a largely flat area that maps and visual cues indicate was cleared not particularly long ago, perhaps as recently as the 1980s. It is a collection of five walls and numerous cairns, all appearing rather recent and in good condition. The walls run parallel to one another and are roughly the same length, and they all have a gap in them that seem suited to allowing a human to cross, but not an animal. Some of the cairns line up with the walls, almost as if they were extensions.

While the north side of this flat area drops off somewhat sharply into the streambed below, the south side is bounded by the remains of wire fencing. It is a mix of loose mesh with a single line of barbed wire above it. At two points (one at the western end and the other near the eastern) the fence is attached to massive old trees, which have partially grown around the metal wires. These trees are

probably near a century old if not more, and their persistence through the numerous episodes of logging that have taken place here within the last century indicates that they were being used for this purpose long ago. This may mean that the walls and cairns are similarly old and have simply been well-maintained and improved upon, but this cannot be confirmed.

Either way, the existence of fencing in association with long walls implies the presence of livestock. Before wolves became extinct and black bears no longer a significant threat, ranchers used to need to protect their animals during the night. Spencer Young, a farmer who has lived and worked in Echo Valley for nearly 40 years reports (interview, April 7, 2013) that this would often mean allowing the livestock to roam and graze during the day, but penning them in with guard dogs for the night. Though not a certain explanation, this does provide one strong answer for this cairn field: the walls were used to compartmentalize the different livestock, while the fence was used to keep them in and predators out. Of course, it may simply be that this area was used as a vegetable garden, and the walls and fences were used to keep herbivores out. No artifacts were found in the immediate area to either confirm nor deny either hypothesis, so beyond the use of fencing to restrict faunal movement nothing is certain.

The last interesting feature of the E Site is another large tree about 50 feet to the southwest of the last cairn. This tree is similar in age to the other two described above, but rather than being used as a fencing post it is surrounded by discarded metal, glass, and ceramic materials. There is a great variety of items here, from old metal gasoline cans to glass bottles to smashed ceramic plates, but they all seem to date to roughly the mid-20th century, if not a few decades earlier. One bottle was found grown into the tree and over a foot off the ground, indicating that it had been raised by the tree many decades before.

A ceramic power line insulator was also found, dating ongoing habitation of the site to after electrification, probably in the 1920s, or perhaps during the 1930s under the New Deal.

Discussion:

The cairns offer intriguing insights into the nature of human interaction with the immediate survey area, and by extension the Southwest Mountains in general. Most notably, the extremely economic *raison d'etre* of most of the cairns is quite obvious. Many exist as debris from clearing fields in order to maximize the profitability of agricultural land (see Sites A, B, D, and possibly C), and others appear to be intended to help create cleared, even surfaces to allow easier transportation (Sites B, C and F, and possibly D and E as well). There is also evidence of walls for agricultural purposes (Sites A and E), and for controlling and possibly regulating water flow (Sites A and E, possibly B). Natural water sources were improved upon to ensure consistency and quality (Sites A and E). There are even indications of site usage for the production of illegal moonshine (Sites B and E) and the infrastructure required to do so.

However, it is unfair to characterize all of the cairns and walls as recent, capitalist-minded constructions built simply to improve efficiency and productivity. There is evidence for some construction at or near potential domestic sight (Sites A and E), and others that seem to have been built for other non-economic concerns (Sites A, D, and F). Many of the cairns appear to have been built with a concern for aesthetics rather than speed of construction, and were perhaps used to beautify an area.

What is important is that the cairns are heterogenous, showing a great diversity of architectural styles, apparent ages, and settings, both across the different sites and within them. By keeping track of

where the changes happen and attempting to infer when, it becomes possible to see patterns of shifting land use over the centuries.

There is no particular evidence of indigenous peoples having constructed any of the cairns. Despite there having been a cairn-building culture in the area during the Middle Woodland period (though centered in the Shenandoah Valley some 30 miles to the northwest), and the later Monacan's preference for massive earthen mounds (two being built within 10 miles), there is nothing indicating any mound construction in the survey area (Hantman & Gold 2002). That being said, there is still evidence of native interaction with the area. During surveying, two separate projectile points were found, both made of apparently locally-sourced quartz crystal. Though they are missing their tips, they both have a fishtail, side-notched base that indicate an Early or Middle Woodland period origin, around 2,500 years ago. This confirms that there was activity in the survey area during this period and, as the points were found on opposite sides of Dowell Mountain (one just north of Site B, the other between sites D and E), it was not restricted to just one area.

Indeed, Young confirmed (interview, April 7, 2013) significant Native American activity in Echo Valley. A farmer who has been working the land since the 1970s, he has found points, scrapers, knives, and lithic debotage most times he plows a certain fields. In total he has found well over one hundred artifacts from this location, though some were lost in a house fire. This site, on a southward-facing slope less than a mile north of the survey area, appears to have been a campsite (or perhaps a small village) used and reused for many years at about the same time as the other points date to, around 2,500 years ago (Young). This site has revealed a variety of lithic artifacts, including a relatively rare ground stone axe, a very rare ground stone greenstone point, and one extremely uncommon stone sphere, probably

fewer than a dozen of which have ever been found in Albemarle county, that is made from an imported (possibly quartzite) stone (Holland 1978).

Clearly, there was significant activity in the area by at least one Early or Mid Woodlands indigenous group, but nothing directly ties them to any of the cairns. The only potential association is that the eight or nine woods cairns at Site A could have functioned as an indigenous spiritual site (with the axis facing the rising sun, a human effigy, and perhaps a path symbolizing a sacred journey), but at this point it can only be speculation. And while these cairns do appear rather old and have partially disintegrated, they may merely be 100 years old, rather than 2,500. There is also the possibility that some indigenous cairns at Site A have been expanded upon by later occupations of Western settlers, who rather than spending the time and energy required to dismantle these cairns, simply added their own debris rocks from field clearing on top—this may explain the several massive, intra-field cairns at the A Site.

What can be confirmed is that, following the arrival of Westerners (European settlers and probably more than a few slaves), there was eventually a significant boom in cairn construction. The preliminary use of the survey area was as a source for timber, especially chestnut; people who wished to farm sought out flatter, better-irrigated lowlands. Original logging efforts were somewhat different from those of today: transportation was provided by mules (or perhaps horses), and immensely difficult. Where possible, land was smoothed out and rough roads created, which could be the origin of some of the cairns, particularly at Sites B, C, and F. If this were too difficult, animals might be tasked to drag individual trees behind them, perhaps explaining the narrow, path-like depressions at Sites A and E (and possibly even the apparently non-economic woods cairns at Site A).

As the montane infrastructure improved, loggers began to work with larger vehicles, such as horse-drawn carts. As they still lacked heavy machinery for lifting immense trees, they needed to develop innovative solutions. One was to organize many parallel roads going horizontally around the same mountain; an individual animal would drag a tree trunk along one of these before arriving at a cart waiting on the road six or so feet below. With the help of a few planks, the trunk could be easily rolled into the cart, rather than needing to be lifted in (John Shumate, interview, March 15, 2013). The presence of many stepped, parallel earthen terraces imply that this may have been the case near the peak of Site C, and perhaps at site F as well.

The other option was to bring the lumber mill to the trees. A temporary housing could be constructed and timber processed directly, making it much easier to transport valuable refined lumber out (Shumate). Indeed, on top of one nearby peak there remains a large pile of chestnut planks that never found transportation away from the mountains; since the near-extinction of the species these are probably very valuable today. This also allows the site to be dated to before the arrival of motor vehicles, confirming the mule-based logging structure and the presence of loggers in general.

Following the introduction of the combustion engine, logging became a different occupation. Whereas before loggers were typically the landowners and hired hands who would stay on-site until the project was finished, loggers in the past century or so have often been based somewhere distant (ie, at their own homes) who have a much more ephemeral association with the land they are working on. This can be seen in the improvement of the dirt roads in the hills: they become flatter, smoother, and wider as people are able to transport more timber out in less time (today, many of the well-built, disused logging roads have been reclaimed by locals who go four-wheeling through the hills). Loggers also begin to

leave waste scattered much more widely, such that evidence of their passing is found throughout the hills in the form of glass soda and beer bottles, and more recently as old pop-top aluminum beer cans and eventually plastic bottles.

The most significant version of this non-local modification of the landscape is actually rather recent: starting in the 1960s, telephone lines were built through the mountains. These were built rather like Roman roads, cutting straight lines through the hills regardless of topography. They bisect sites C, E, and F, and at all of these there is at least some evidence the builders also created cairns. The communications cables were buried many feet underground in clearings about 30 feet wide; both the trench for burying the line and the clearing of the woods would have required the removal of rocks, at least in some places, and piles of this debris appear at all three sites listed above. Site F gives the most concrete evidence, as cairns appear almost exclusively within 150 feet to either side of the telephone line's clearing, and running parallel to it for many hundreds of feet as well.

While many of the cairns appear to have been built by loggers or other outside infrastructuralists, many others (perhaps the majority) appear instead to have been built at the direction of people with an interest in long-term interaction with the land. While many early agriculturalists and pastoralists farmed small plots for a few years before moving on, large landowners were interested in maintaining and improving their investments. This meant maximizing the productivity of farmland, a major component of which was the removal of stones from the soil. This explains many of the cairns found at or just beyond the edge of fields (certainly at Site A, and possibly at all other sites). A related trend was the construction of walls, which to my mind has no purpose other than improvement of land for agricultural or pastoral purposes.

Longterm agriculturalists would have been well aware of the capabilities of different landforms for different purposes, such as well-irrigated lowlands being better for ground crops and uplands for trees and vines. What is more interesting is the conscious adaptation of different areas for different, defined purposes. The large cleared field at Site B and much of Site A are known to have been home to peach and apple orchards, respectively (Spencer Young, interview, April 7, 2013). Both of these are on northward-facing slopes, meaning that they receive less sunlight than southward-facing areas, and thus have a lower average temperature, especially during colder times of the year as the sun drops towards the southern horizon. While this may seem poor for agricultural potential, it actually increases productivity of fruiting trees: professional gardener, landscaper, and horticulturalist Dave Phipps contends (interview, March 16, 2013) that because it takes longer for the trees to warm and thus produce flower buds in the spring, the buds are much less likely to be destroyed by a late frost. This sort of intentional investment in working with the landform correlates to construction of cairns and walls that likewise seek to improve productive potential.

Maps from the second half of the 19th century indicate only one significant plot of land in Echo Valley, originally owned by "S Coleman" before being bought by one Mr. A. R. Lockhart around 1870 (ACHS 2012). It is probable that he owned most of the area (today encompassing sites A, B and F), and possibly much more, while the land was worked by family, hired hands, smallholders, and probably slaves before emancipation. A similar situation seems to have occurred on the far side of Dowell: a large plantation known as Piedmont Manor likely owned the area today encompassing sites D and E, and the tenants thereof are probably responsible for at least some of these constructions (although most of Site E appears to date to the 20th century). Whoever built the cairns at these sites, their mentality seems

somewhat different from that of the loggers, with a mind more towards aesthetics and structural integrity, probably because these people would have seen and maintained these same cairns and walls regularly for years or decades after their initial construction.

What is interesting about these cairns and walls is that some of them seem to have been improved over time. At Site A, at least two large cairns have had massive stones pushed next to them after their original construction. Whoever was working the land sought to continue improving it as new technology (such as high-horsepower tractors) became available. A similar thing appears to have happened with the construction of several ponds; as technology made their construction more feasible, they appear throughout the survey area (one each sites A and D, and two large ones and a small one at site B). Some of the cairns may even be extra rocks removed during the excavation of these features, although it would make more sense to use those stones in the construction of the dams for said ponds.

Conclusions:

By studying the cairns and associated features, a few things become obvious. Every cairn could potentially have been built by Europeans and their descendants in the last two or three centuries, and the vast majority definitely indicate such an origin. However, these also indicate a diversity of reasons for their construction, including improvement of infrastructure, increasing agricultural productivity, beautification and domestication, and perhaps even moonshine production.

Many of these cairns, walls, and other loose stone constructions help to tell a narrative of increasing exploitation of the land and natural resources over time, plateauing in frequent logging, intensive agriculture, and relatively large-scale development during the mid-20th century, although the past 30 years have witnessed a decrease in exploitative activities. While there is little sign of outright

environmental destruction or mistreatment, the cairns, roads, discarded domestic and mechanical debris, and general lack of old trees do point to extensive extraction of resources, in some places with little thought for native flora or fauna beyond ensuring the next crop or supply of hardwood trees.

That being said, a few of the cairns—most notably the woodland cairns in site A, but possibly elsewhere—make little economic sense in a contemporary Western market economy, indicating either significant changes to the surrounding landscape since their fabrication, or a non-economic motivation for their construction. This could potentially indicate Native American origins (although this would probably mean they are over 2,000 years old), economic extraction methods rendered obsolete by modern technology, or some other origin. The emphasis in some places for aesthetically pleasing cairns, and others which show signs of improvement over time, indicate a longterm investment in working with and living on the land.

The cairns themselves do not tell the whole story, but they are integral to the history of the mountains. Using them as a proxy for changes in technology and culture, they can relate the cultural shifts that have taken place here over time, as different groups of Native Americans hunted and foraged before evolving into or being replaced by the Monacans, who in turn were displaced around the time of European colonization. The arrival of white settlers and their slaves marked yet another era of occupation, as did the recent presence of professional loggers. Indeed, though the history uncovered by this project is far from grandiose, it is exemplary of the way people have lived and interacted with similar in environments throughout the state. From indigenous peoples hunting and foraging in Echo Valley 2,500 years ago, to moonshiners in the 1930s, to loggers as recently as five years ago, many people have passed through these hills, and left signs of that passage. This project has sought to analyze those

signs, and hopefully tell something of the story of the people who made them.

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