The Archaeology of Semiotics and the Social Order of Things

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Chapter 10

Accenting the Landscape: Interpreting the Oley Hills Site

Norman E. Muller

Introduction

The Oley Hills in Berks County of eastern Pennsylvania is a beautiful area of rolling hills and valleys, punctuated by a network of streams and rivers. In 1732, this area was deeded to the heirs of William Penn by the American Indians and shortly afterwards German settlers moved in, first to the fertile river valleys and later to the poorer terrain in the hills. It was the hill area that first attracted me when, in 1997, Fred Werkheiser, a shoe salesman and amateur archaeologist from Bethlehem, Pennsylvania, showed me a privately owned site in the Oley Hills that he had visited numerous times. We visited the site on a cold November day, after a late evening ice storm had covered everything with about half a centimeter of ice, turning the late fall landscape into a winter wonderland. The drystone features he showed me so captivated my attention that, from that point on, I was determined to find out who built them and when. I was well acquainted with colonial walls and other stone features from this period but what I had been shown that morning was very different and visually impressive: unusual looking curved walls, two huge flat-topped cairns, a massive boulder, a large terrace, a large inclined cairn and a platform. A previous owner of the property claimed the features were Celtic but Fred himself believed them to be American Indian, constructed before the area was settled in the early- to mid-18th century. At the same time, I was well aware that any dry wall masonry of unknown origin, such as walls or larger features found in the woods of the Northeast, was generally ascribed to colonists by archaeologists. Any consideration that American Indians built impressive works of stone has usually been dismissed out of hand and this attitude continues to the present day.

Recognizing the difficulties I would have investigating this site, I sought outside advice. Dr. Stephen Werfel of the Pennsylvania State Museum in Harrisburg was instrumental in guiding me in the right direction at the beginning of my research. He suggested that I approach the investigation by playing devil's advocate and attempt to prove that the features were colonial. This, he said, could be done two ways: First, by tracing the deeds for the property back to the original owner to see if any of the property lines coincided with present stone walls or other features. And second, by searching the historical record to determine if there was any prior mention of the features, and who might have constructed them. If, at the end of the search, nothing turned up suggesting that the features were colonial, then other hypotheses could be entertained in its place (Werfel 1998).

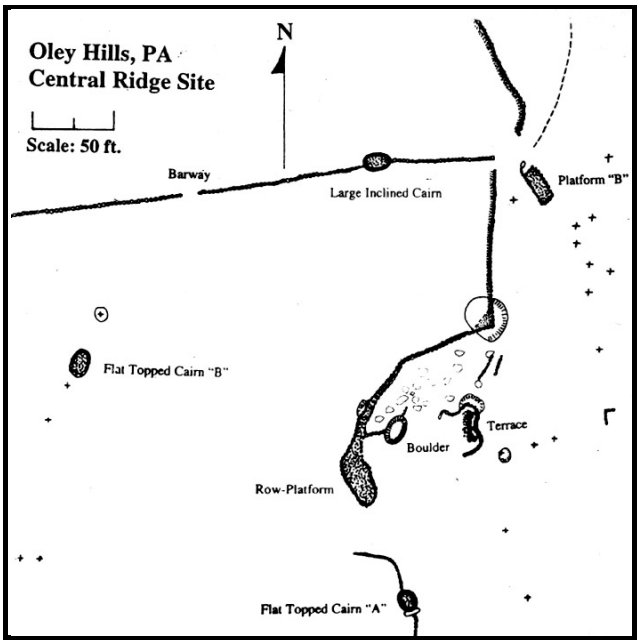

Figure 10.1. Map of the Central Ridge Site, Oley Hills, Pennsylvania.

Over the next two years, I closely followed Werfel's advice, using the site in the Oley Hills as a test case. Deeds were carefully studied and copied in the county court house and in the State Archives in Harrisburg and from them I was able to piece together a fairly accurate history of the land. I also realized that I needed to understand basic facts about the site besides its history, such as its geology, soil, vegetation and setting and these subjects became an integral part of my research. Furthermore, it was important to discuss the issue of whether the cairns at the site were nothing but field clearing piles, as so many archaeologists in the region have claimed.

Before I did anything, however, I felt the first step was to have an accurate map made of the site. I had made little sketches of my own attempting to show the general layout of the site and the relationship of the various features to one another and to the landscape, but they lacked precision. At that point, I enlisted the help of John Waltz, a good friend, surveyor and engineer by training. Over a winter weekend, we traversed and surveyed the site, marking every manmade feature, from small rock stacks on existing boulders to larger cairns to the massive terrace. These are all accurately indicated on the map (Fig. 10.1). The small and larger loosely piled-up cairns are shown as small crosses. Archaeologists usually ascribe cairns to field clearance but building cairns on existing boulders in what is still rocky ground is not field

clearance as it is currently understood. Farmers wanted to get rid of unwanted stone as quickly as possible and get on with the work at hand and stones that had been forced to the surface through frost action in the spring were carted to the edges of fields and simply dumped in large irregular piles (Fohl 2004, Muller 2003a). The huge cairns and other features at the site are quite distinct from the smaller cairns, in that they are exceptionally well constructed and even artistic in nature, demonstrating a vision and design that sets them apart from what we think of as the normal, day-to-day agricultural activities of the colonial farmer.

History

Thomas Penn acquired the land on which the Oley Hills site is located by treaty with the Indians in September 1732 (Munger 1991). This treaty included land lying between the Lehigh hills and the Kittatinny Mountains along the Schuykill River watershed.

Immediately after the treaty was signed, German immigrants began arriving on the newly available land, settling first in the fertile river valleys. Those who arrived in the 1740s moved further inland to the Oley Hills area, a scenic but difficult farming area among the hills to the south. Two German immigrants settled on the land under discussion. The first was Nicholas Mertz, who arrived in the United States from southern Germany in the mid-1730s and probably moved to the Oley Hills in the 1740s; and the second was Christian Abendschön, who bought his 67-acre property in October 1751. Abendschön's land included the Central Ridge site that is the focus of this study and adjacent land to the north and south.

From my research, I knew that Christian Abendschön, the first owner of the property, held onto his land until about 1762, when he abruptly left Pennsylvania and moved to North Carolina, literally abandoning his land and leaving behind a legal mess that would only be resolved in 1875, when six landowners of his former property petitioned the state for a resolution to their claims of ownership, to which the state acceded. I was able to establish that there were nine owners of the property before the present one and after examining their deeds, and plotting all the various metes and bounds on a master map, I was able to establish that only one stone wall, aligned east-west on land separating the properties of Abendschön and Mertz, was colonial in date. There was no mention in the deeds of existing stone features, such as cairns, but this is not uncommon in searching through old deeds.

Setting

The wooded ridge on which the features are found is oriented north-south and is drained by two small brooks in the valleys to either side; the one on the east side flows intermittently. This long ridge is approximately 305m above sea level but only 33m or so above the two valleys. The summit is broad and generally flat but to the east the slope is a steep 25 degrees whereas the west one is more gradual at 15-20 degrees. From the Central Ridge summit extending to the south, the terrain is rolling, consisting of a few dips, outcrops and rises before terminating at a farm. While boulders of various shapes and sizes are found scattered all over the ridge, they are much more numerous on the east slope of the ridge than on the west. Except for these, the remainder of the area immediately to the west is mostly devoid of them. This characteristic changes, however, as the ridge is followed to the south.

The bedrock in this region is granitic gneiss, a gray to buff colored metamorphic rock containing tiny crystals of hornblende, biotite and quartz. This rock has a planar fracture and helps to explain the roughly flat-surfaced rocks that are characteristic of the area. There are only a few clearly exposed areas of bedrock, one being the rounded ledge where the South Row makes a sharp turn to the west (see Fig. 10.1) and the only other type of rock present is diabase, which is found in a short dike on the ridge crest. The weathered blocks of stone scattered about are either composed of diabase or bedrock (Buckwalter 1957).

The soil throughout the Oley Hills site consists of the Chester series, which usually develops from weathered granitic gneiss to form a deep, silty loam soil consisting of coarse fragments of weathered gneiss interspersed with gritty to sandy material. Usually, the Chester series soils can be up to 2m thick, but at the Oley Hills site, with outcrops of bedrock visible in places, the soil is very shallow. At the very summit, the topsoil is only 0.10 - 0.15m deep before one encounters the stony soil characteristic of the periglacial period. The stony character of the soil in the higher Oley Hills made for very poor farming and this is probably the reason why farmers such as Nicholas Mertz, whose land abutted that of Christian Abendschön, and who was probably more prosperous than most, rented land in the valleys below to grow his crops.

The ridge is covered with second-growth deciduous hardwood, consisting primarily of oak. Most of the trees are small and seem to be no more than 30 or 40 years old. Stumps of very large and much older trees can be seen here and there on the ridge, indicating that tree harvesting has been an on-going activity for many decades and perhaps over the past 200 years. Even now, older trees are colour banded for cutting. In addition to the trees, the ridge has pockets of heavy undergrowth, consisting of vines, green brier and blackberry bushes. Dense tangles of this growth obscure much of the stonework and make travel and investigation difficult and tedious.

Scope of Research

All of the features on the site, and what few small artefacts that were discovered on the ground, were photographed and catalogued. Throughout the year, and for about five years running, I visited the site innumerable times, from various directions, in all seasons and in all kinds of weather. Each of these visits lasted

most of the day, and some were made in the company of friends and outside experts as Dr. William Sevon of the Pennsylvania Geological Survey, and Dr. Michael Stewart, professor of anthropology at Temple University in Philadelphia. In recent years, the interpretation of the features at the Oley Hills site and their relation to the landscape has been aided by the landscape archaeology and phenomenology of Richard Bradley and Christopher Tilley, both of whom write from the perspective of English and European archaeology (Bradley 1998, 2000; Tilley 1994, 1996, 2004). Much of the thrust of landscape archaeology has occurred in Great Britain and in countries of the British Commonwealth; only fairly recently have American anthropologists taken an interest in the subject, primarily as it relates to rock art (Steinbring 1990).

At the end of my research period, I had exhausted all the possibilities of a colonial explanation for the stone features and still had no idea what the features represented, who constructed them or why. Initially, I followed the model used by many archaeologists in their published field reports by giving background information such as the vegetation, geology, history and then move on to a description of the features themselves. But I soon realized that this did not help to explain the features and their relationship to each other and to the land and so I refashioned the argument and attempted to understand what was visually significant about the site. For example, was there an outstanding feature that seemed to dominate the site to which other manmade features seemed to be related? By erasing all the cairns and other manmade structures from my mind's eye, leaving only the natural landscape as it might have appeared before anyone arrived at the ridge, it quickly dawned on me that the large boulder on the summit, which I simply labeled as the 'Boulder' on the map, dominated the landscape and was the heart of the site, the focus of at least two large features, the Row-Platform and the Terrace. We will examine this group of three features first, followed by the two flat-topped cairns, Platform B and finally the large Inclined Cairn.

The Boulder Complex

One is naturally drawn to the Boulder because of its size and shape, dwarfing everything around it. When I first began to study the site, I assumed that the Boulder was a glacial erratic, simply because it looked like ones I was familiar with in New England, and the way it appeared to perch precariously on the summit ridge just above a rock fall. But first appearances can sometimes be misleading. The Wisconsin ice sheet, which was the last of the great glaciers to spread from the arctic about 25-30,000 years ago, ended its southern movement about 30km to the north. Everything immediately to the south of this line was in a zone subject to periglacial activity, which means that this area was at the southern margin of the ice sheet 10-11,000 years ago, when freezing, thawing and permafrost conditions prevailed. The boulder in question, which may look like an erratic, is in fact a tor, which is a highly weathered outcrop of rock that, over time, became detached from the bedrock by differential weathering.

During fall and winter, when the trees are free of leaves, the Boulder can be seen from the valley immediately to the east, looming ominously above the ridge to the west, a dark form that is curiously uninviting and tantalizingly beguiling at the same time (Fig. 10.2). The closer one approaches, the less imposing it appears, although at 3m tall and 5m long, it is hardly tiny. As is clear from a study of the map in Figure 10.1, arranged around it are two large features: the curved Row-Platform and the Terrace. We will discuss all three features as one group, since I believe the two manmade features were constructed because of the presence of the Boulder.

Figure 10.2. Boulder and Row-Platform from southwest.

The Boulder has nearly vertical sides which taper to a rather flat top (Fig. 10.3). The north end inclines at a 30 degree angle, making it appear like a truncated trapezoid. Thousands of years of weathering along bedding planes of the gneiss have caused some exfoliation of the stone. From the east, the oval form appears truncated, due to the fact that several large blocks of stone from the south end exfoliated from frost action and are now arranged on the ground in a rough semicircle around it. Beneath the north end, two small stacks of stones are wedged in place (Fig. 10.4). When Bill Sevon first saw them in 1998, he remarked that the Boulder may once have been balanced in such a way that it could be rocked simply by pushing against one end. The small stacks of stones, he concluded, were wedged underneath to keep this from happening. As water entered cracks in the stone on the south end and froze, it wedged loose large pieces of stone, tipping the weight to one end and bringing to an abrupt end its rocking characteristics. It is highly possible that it was this unique feature of the Boulder that led builders to construct the Row-Platform and the Terrace in the first place.

One intriguing feature is the short stone row connecting the Row-Platform to the Boulder at its broken edge (Fig. 10.1). It seems like an afterthought. The pieces of gneiss comprising it are much more angular, the edges sharper and fresher looking, and the lichen cover a bit less extensive, than are the cobbles from the South Row or

Figure 10.3. Boulder as viewed from the east.

Figure 10.4. Stone stacks underneath north end of the Boulder.

elsewhere. It also seems to be less tightly constructed than the South Row. These points argue that the short row is more recent than the Row-Platform. One idea that came into my mind was that this connecting feature was meant to emphasize the broken edge of the Boulder and the fact that its rocking characteristics had ended. I had observed in other locations that split boulders, presumably having been broken apart by frost action, were often symbolically reconnected by constructing a short stone row between them or else filling the split with small rocks (Muller 2000). This short row could be a variation of this.

Colonial farmers had no ritualistic attachment to boulders and preferred to get them out of the way as soon as they could. But for American Indians, they often singled out large glacial erratics for ritualistic veneration. There are numerous examples recorded of them but one area in particular comes to mind. At Côteau des Prairies, in southwest Minnesota, is a famous pipestone quarry used by American Indians as a source for the soft reddish stone for peace pipes. And just below an escarpment, on a level area where the Indians mined pipestone, are five huge erratic boulders of gneiss all in a row, several of the largest being called the "Three Maidens." These boulders

Figure 10.5. Terrace from the east.

are isolated and impressive, having what have been called "phenomenal attributes" (Steinbring 1992). When George Catlin visited this site in the 1830s, he described in considerable detail the rituals that Sioux Indians conducted in front of the boulders and the petroglyphs that had been carved beneath the "Three Maidens" (Catlin 1842: 164, 202-203). Similarly, the Dakota in Minnesota worshipped a god who resided in stones, whom they named *Taku-Shkan-Shkan* or "the one that moves" (Pond 1986: 87,89). To them, certain unusual looking erratics possessed locomotion and were moved by an invisible force. This was long before anyone knew about geological forces and glaciers transporting boulders hundreds of miles and then depositing them. Bender (2003) has also pointed out that the Indians attached sacred properties or powerful Manitou to unusual looking boulders or those that were isolated.

Row-Platform

The Row-Platform begins at the top of the ledge outcrop where the extension of the South Row makes a sharp angle to the west. The South Row has a wedge-shaped profile, with a near vertical face about 1m high and a tapered backfill whereas the Row-Platform is generally rounded. Where the two rows merge, the Terrace lies about 18.2m away and it is symbolically joined to the Row-Platform by two smaller parallel rows leading to it (Figure 10.1). The Row-Platform seems to form a dividing line between the rough and rocky terrain to the east and south and the smoother ground to the west. Once past the corner, and Row-Platform completely changes shape, evolving into a structure with near vertical sides and a flat top. As it nears the Boulder, the row becomes softly undulating on its west side as it snakes around the rocky area below the Boulder before widening and ending in a wide platform in front of it (Figure 10.2). Faulkner (1999) has raised the possibility that the Row-Platform represents a serpent.

The Terrace

From Platform B, there is a natural route to the Terrace and Boulder south along the base of an outcrop below the South Row. At its base, the Terrace presents a formidable fortress-like undulating wall of rock that completely obscures the Boulder from view (Fig. 10.5). Measuring 12.5m long, 2.1m high and more than 3m thick at the base, it is the largest construction on the ridge and forms an artificial extension of the flat summit on which the Boulder rests, projecting beyond the lip of the ridge. The central portion of the Terrace has partially collapsed, resulting in a cascade of boulders forming at the bottom and exposing a 0.3m thick fill of small stones at the top. In spite of this, one can still sense the undulating, curvilinear façade, which can be best appreciated by walking counterclockwise around its base. From its projecting northeast corner, and standing on a surface composed of small pavement-like stones, one has a magnificent, if limited, view of the land and features below, such as the Inclined Cairn to the north and Platform B below. To the northeast, one glimpses the Lehigh Valley through the trees. There are no obvious solstice or equinox alignments from this location but the fact that the Terrace faces east towards the rising sun suggests that it was constructed to take advantage of its exposed east-facing location and to form a visual and perhaps functional connection with the Boulder behind. The top of the Boulder is the highest spot on the ridge and one might speculate that when the sun's rays first struck the top of the Boulder, perhaps at the summer solstice, it signaled an event that could have been

transmitted audibly to those below by rocking the Boulder.

In the winter of 1998, John Waltz was investigating the base of the Terrace and found half a dozen pieces of fused, cinder-like material. Another piece was then discovered in a small void beneath the paving stones, implying it had been placed there intentionally and had not fallen into the crevice accidentally. More than half a dozen such pieces were collected on two separate occasions, most of them at the base of the Terrace, and presumably having fallen there when a portion of the Terrace collapsed. One large sample was sent to Robert Gordon, a specialist in industrial ecology and archaeometallurgy at Yale University, in January 1998 for study (Fig. 10.6). After examining the cinder piece, he wrote: "It is almost certainly debris from a hearth that held a rather hot wood fire. The piece contains bits of shale and limestone that were probably used to construct the hearth. Clay lining of the hearth has reacted with the stone to form a lightweight, porous slag. I see no evidence that this was from a metallurgical process" (Gordon, personal communication, 9 February 1998). Interestingly, the Adena and the Hopewell people cremated human remains in large, clay-lined basins dug into the ground (Dragoo 1963), and perhaps the cinders should be more closely examined with this thought in mind. Also, Adena burials have been found along the Atlantic coast in Delaware and Maryland, far to the southeast of the Oley Hills site (Ritchie & Dragoo 1959).

Figure 10.6. Cinder sample from Terrace.

The frothy, ochre-colored binding material was later tested by X-ray diffraction analysis at Princeton University. The analysis determined that the binding material had the elemental components of clay but overall it was a sodium hydrogen phosphate hydrate. Meanwhile, in 2002, funds had been raised to have the cinder binder tested for thermoluminescence (TL), a technique that is often used to date ancient pottery. The sample was sent to Bortolot Daybreak in Connecticut for analysis. Although the sample had a very low TL sensitivity, similar to clays from Veracruz, Mexico, it was stated in the report that "if the signal is taken to be all TL, then the TL age would be 1130 ± 260 years" (Bortolot 2002). Because the signal was so low, however, and so little work has been done on samples of this nature, the date may be suggestive of great age and nothing else.

Besides the samples mentioned above, tools and points made of jasper and extensive jasper debitage have been found in fields to the north of the site, in addition to tools made from quartzite, quartz and chert. The jasper presumably came from one of the local deposits of what is called the Reading Prong, an elongated area of jasper extending diagonally 96km through the southern parts of Lebanon, Berks, Lehigh and Northampton counties in Pennsylvania. Some pieces have been heat treated, which has turned the mustard-coloured jasper to a deep red.

Flat-Topped Cairns

Some 20m south of the Boulder is a strange, 0.7m high, and carefully constructed stone row that appears to emerge from the ground, make a looping curve and merge into a large, flat-topped cairn 2.1m high and 2.4m long (Fig. 10.7). As viewed from the side, this cairn, which is labelled Flat Topped Cairn A, is built against a large slab of gneiss tipped at an acute angle (Fig. 10.8), which imparts considerable energy to the cairn. At another angle, the slab extends out from the cairn, looking like a growth that the cairn somehow was able to dominate. Oval in shape, the cairn is tightly constructed of cobbles of gneiss averaging .15-.20m in diameter. The sides taper in at about a 70 degree angle, imparting strength and stability. At the south end of the cairn, the row emerges and continues south to a junction with another row, makes a sharp right-hand turn (west) and eventually ends on the down slope of the Central Ridge site.

Further to the west, but only 17m from the Boulder is the enormous Flat-Topped Cairn B (Fig. 10.9), an awesome structure independent of any stone row and constructed on a large boulder. The cairn measures 2.1m high by 5.8m long and 1.8m wide, and, like the previous cairn, its sides taper in at 70 degrees. While Cairn A appears to have a rather uncomfortable relationship with the slab of gneiss it is built against, Cairn B grows naturally out of the boulder it is on, in an organic manner.

There are cone-shaped cairns in the valley below, but flat-topped cairns on the ridge crest; early on I wondered whether there was any significance to this. Might the flat- topped cairns have been symbolic recreations of the Boulder, since the latter had a flat top and somewhat tapered sides, especially if it is viewed from various angles? Tilley (1996) has pointed out that some dolmens and cairns on Bodmin Moor in Cornwall are within sight of imposing tors and thus they may have been constructed to mimic them. Each of the flat-topped cairns on the ridge crest is within sight of the Boulder and the profile of Cairn B, including the boulder it is constructed on, is very much like the Boulder (compare Figs 10.3 & 10.9).

Figure 10.7. Flat-topped Cairn A from north.

Figure 10.8. Flat-topped Cairn A from east.

It is also possible that the shape of the cairns has nothing to do with the Boulder and is simply an artistic variation of the platform cairns that will be discussed shortly, a type of structure that is found not only at the Oley Hills site but throughout the Northeast.

Platform B Area

At the end of a graded path leading up a steep slope from a farm below is an unusual feature called Platform B, a roughly rectangular structure resting on a flat plateau or saddle just to the north of the ridge summit (Fig. 10.10). Forming a rough band extending from the cart path to the north to just below Platform B are numerous small cairns placed on existing boulders; these cairns are represented by small crosses in Figure 10.1. The central focal point in this area was the platform itself, a flat-topped, roughly rectangular structure that straddles the crest of the saddle. It was built of cobbles of gneiss, approximately .15m in diameter, resting on a base of large projecting boulders that resemble the buttresses of gothic cathedrals. Overall, the structure measures 6.7m long and 3.3m wide and varies in height from 1m on the west to 2m on the east, this discrepancy being due to its location on the edge of the steep slope. At the northwest end of the platform is a curious curved terrace wall that extends out 2m to meet some large boulders. The other end has a split façade, with a steep inclined ramp giving access to the top. Small stones .10m or less in diameter and somewhat flat – what I refer to as 'paving' stones – cover the upper

Figure 10.9. Flat-topped Cairn B from east.

Figure 10.10. Platform B from north.

Figure 10.11. Inclined Cairn from south.

surface. From the top, and facing east, one can stand and look out over the features below and at the Boulder over one's right shoulder, looming against the skyline to the southwest. In addition to the cobbles of gneiss comprising the structure, there are also several substantial pieces of quartz mixed in with them; two are located on the east-facing side, while the other is found on the northwest corner.

West Stone Row and Inclined Cairn

As with the curved stone row that leads into Flat Topped Cairn A, the West Stone Row, just to the west from Platform B, also emerges from the ground and heads directly west to engage what I call the Inclined Cairn. From the side, it looks like the angled prow of a tugboat (Fig. 10.11) with a 2.1m high east-facing front that in 4.6m tapers to 1m. As with all the other large cairns, this is constructed on a 1m high boulder. Four large quartz cobbles are incorporated in the east-facing side; none is found elsewhere and the top is covered with a paving surface of small pieces of gneiss. Along the north facing side of the cairn is a surface projection that creates a steep, inclined ramp, although it is in serious disrepair. It is similar in a way to the one found on Platform B, which would have permitted easy access to the top. A few small pieces of heavily weathered dolomite with a thick rind were found on top of the Inclined Cairn in 1998. Dolomite is found in the valley below and not on the ridge; it must therefore have been gathered deliberately and placed on top of the cairn for reasons unknown.

The milky quartz cobbles found in the Inclined Cairn, the West Stone Row and Platform B all seem to have the same general characteristics, in that they have thin veins of iron running through them, two flat parallel faces and are roughly .10m thick, even though the outside dimensions can vary widely; one piece in a row between the Terrace and the beginning of the Row-Platform measured .46m across! Most, however, are .15-.20m in diameter. A comparison of all the pieces suggests that they came from the same location, which must have been a large exposed vein of quartz. Quartz by itself is such a common mineral that to find it anywhere in most places in the Northeast should come as no surprise. But when Bill Sevon visited the site in late summer 1998 and saw the quartz, he remarked that it could not have come from the ridge, since the bedrock there was gneiss. He suggested that the quartz must have come from the valley below, more than 2km away, from a formation in which veins of quartz might be expected (personal communication). This was a very significant observation because it meant, obviously, that quartz was deliberately incorporated in the features and not placed there arbitrarily and is therefore a cultural attribute. Farmers wishing to clear their fields of stone would hardly have trekked to the valley below, 1.6km or more away, to select quartz to bring back to the cairn construction site. Quartz, however, had a symbolic and ritualistic importance to American Indians because of its light translucent colour and peculiar attributes, such as the piezoelectric light that was released when quartz was broken or else when two pieces of the mineral were rubbed together (Whitley 1999). Supposedly, the power it possessed entered the person holding it, such as a shaman. The quartz found on the Central Ridge site is generally, but not exclusively, on the side of features facing east. This is the case with the large Inclined Cairn, for example, and the North Row in the vicinity of Platform B. Its presence in these and other features (but not for example the two large flat-topped cairns to be discussed), suggests that those which have quartz and those that do not were perhaps constructed at different times.

A Broader Perspective

After completing my initial study of the Central Ridge site, one central question remained unanswered and that was whether two of the most distinctive features on the ridge, the flat-topped and platform cairns, were unique to the area or could be found further afield. Cone-shaped cairns, either tossed together in a pile or carefully stacked, brick-like, are ubiquitous in the Northeast, and they did not appear to offer a good distinctive example to study. The flat-topped cairns and Platform B appeared unusual and distinctive and for the next five years, from about 2000 to the present, I traveled widely in New England to see what similar examples I could find.

A clue that the flat-topped cairns were perhaps more widespread was found right on a section of the Central Ridge site itself, about 400m to the south, on property that was once owned by Nicholas Mertz. On the west slope of the ridge, four large cairns were discovered, all constructed against or on existing boulders. Not as large as the ones on the Central Ridge, being at most 1.5m high and 2.5m long, they were nevertheless built with care and exhibited, on a smaller scale, the type of cairn found at the Central Ridge site.

More than 320km to the northeast, in the small town of Killingworth, Connecticut, 40km east of New Haven, is a cluster of features which confirmed that the ones at the Oley Hills site are not unique. There, on private land bounded by colonial walls, are three impressive flat-topped cairns, two about 1.5m high and contiguous with one of the walls and another, larger cairn, 2m high, constructed on a smooth outcrop of bedrock (Fig. 10.12). Within this same area are some smaller flat-topped cairns and an impressive turtle effigy. When I first saw the site in 2001, the property was slated for development and the developer contracted an archaeologist to survey the stone features, which he concluded were colonial in date. In an attempt to preserve the features from destruction, a local preservation group had Curtiss Hoffman, an archaeology professor at a small college in Massachusetts, do a statistical analysis of the various stone features on the site to determine whether there was any validity to the claims of the contract archaeologist. Addressing each of the five main points the contract archaeologist raised in attempting to prove his case, Hoffman framed his argument as five distinct hypotheses, which he answered

Figure 10.12. Platform cairn at Killingworth, Connecticut.

Figure 10.13. Platform cairn at Smith farm site, Rochester, Vermont.

with a statistical analysis of probability. By examining the piles in this scientific and systematic manner, Hoffman concluded that the site "as a whole should be considered as a ritual or sacred area" and not part of a farmer's whimsy (Hoffman 2004: 24). Because of the large size of the stones comprising some of the features, Hoffman concluded that they may have been constructed when draft animals were available, during a period when the Indians still practiced ritual at sites that had recently been purchased by English settlers. It is unclear at this time whether the cairns in question will be saved or destroyed.

Much more data has been obtained from a study of platform cairns. As I see them, they all have well constructed outside walls and the interior is usually filled with smaller stones. The shape can be circular, rectangular, crescent or of some indeterminate shape, often dictated by the bedrock or boulder on which many of them are constructed. Some are found on steep slopes so that the downslope side is often significantly higher than the upslope side and one side is often no higher than 1m. Others have extensions or 'tails,' and some have smaller satellite cairns. Large quartz cobbles are sometimes a conspicuous part of the construction. We do not know the purpose of these cairns but many of them represent a considerable expenditure of labour to move many tons of stone (Muller 2003a: 8-9).

They are found from Pennsylvania to New England. Outside Vermont, significant sites are in Brooklyn, Connecticut and Bear Brook State Park in New Hampshire. Within Vermont itself, important locales are in South Newfane and Stockbridge, both of which have impressive platform cairns with prominently placed quartz cobbles (Muller 2003b).

By far, the largest concentration of this cairn type is found at an upland site of approximately 50 acres in Rochester, Vermont, located in the central part of this state. Here, on a steep, rocky and wooded east-facing slope drained by numerous springs are more than 150 cairns and other stone constructions of various sizes and shapes, including circular, oval, square, rectangular and crescent. Some constructions are nothing but carefully made small terraces placed against the side of a knoll, others are massive platform cairns (Fig. 13), some with extensions or 'tails,' and some with smaller versions of themselves built directly below. Quartz sometimes forms a conspicuous aspect of the construction (Muller 2003b: 9). This site is unique not only for the variety, size and number of cairns found on the property but also because we have detailed information on the activities that were conducted here from 1847 to 1888, when the 250-acre property was owned by a Chester Smith. By sheer good luck, I was able to locate the five ledgers or daybooks of Chester Smith no more than 16km from where I live. I carefully poured through each of the daybooks looking for any evidence that Smith or one of his helpers had constructed the cairns but there was none. Smith was too busy with the duties of a farmer to bother with piling stones neatly and so I could only conclude that the piles predated Smith and everyone else who owned the land before him.

Conclusion

Beginning in 1997 with a group of mysterious stone features in Pennsylvania whose cultural affiliation was unknown, this study has expanded to include similar, well-constructed monumental stonework throughout the New England states and beyond. To me, these features are not the product of a talented but misguided colonial farmer, but most probably were constructed by American Indians. Why so many of them were built, for what purpose and when are questions that have not yet been answered but perhaps a clue to the latter can be found in the form most of these dry masonry features took, especially when looked at from a broad regional perspective.

For one thing, all of them are flat on top, even though they may be round, oval, square, rectangular or some other shape. Many of them are large and visually impressive and they often have quartz cobbles carefully incorporated in their design. They are also all exceptionally well constructed, exhibiting a concern for exacting workmanship that places them into the category of monuments or sculpture rather than tossed-together field clearing piles. There is no confusing this distinction. And because the form is so widespread, particularly the platform cairn type, we are actually witnessing a widespread, culturally-related phenomenon rather than seeing this myopically as the whim of a local farmer with too much time on his hands. Were these constructions the result of a regional response to landscape or some agriculturally-related endeavor, surely there would have been *something* written about them before now, but this is not the case.

When I first encountered the great number of platform cairns about four years ago, these forms reminded me of Mississippian geometric earthen mounds, which were built about 1000 years ago, or perhaps the Adena or Hopewell mounds of an even earlier period. At the great Centres, such as Cahokia in Illinois and Moundville in Alabama, flat-topped mounds predominate and it dawned on me that perhaps the stylistic influence for the flat topped stone mounds or cairns could be traced to the central part of the United States, such as Ohio and Illinois. Architectural influences from the Hopewell Indians have been found at a stone walled 'fort' in Lochmere, New Hampshire, that was described by Ephraim Squier in 1851 (Squier 1851: 144-149). Unfortunately, the stones for the walls of this structure proved to be too tempting for those who wanted to build a local dam and, by the mid-1840s, all traces of the 'fort' had been erased.

Unbeknownst to most is a square earthen Mississippian mound in Great Barrington, Massachusetts, near the Housatonic River. It measures 61m at its base, is approximately 15m high, and has a flat top measuring 29m along each side (Hoskins 1972: 63). This is the only known Mississippian structure in New England but perhaps its form, on a much smaller scale, is reflected in the numerous stone platform cairns throughout the Northeast. It should be recalled that Victor Bortolot said that, if the thermoluminescence of the cinder fragment found at the Oley Hills site were considered all TL, then the date would be about 1000 AD. This neatly fits into the time frame of the Mississippian culture. Of course, this cannot be confirmed until or if some culturally diagnostic artefact, or dateable carbon, is found in one of the cairns.

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