A Comparison of Two Contemporaneous
Iron Mining Communities

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Anthropology 378
December 17, 1992
The history of cultural resource management and "conservative archaeology" is, unfortunately, a recent one. Its adoption has not been the result of natural progression but that of hard fought battles. The credit for its present existence and continuing improvement greatly falls on the many archaeologists whose incessant pleas have only recently been answered. Our nation still possesses huge tracts of land completely exempt from federal protection; the destruction and pillaging of culturally significant sites was and still is a major concern and has only recently been defined as criminal. Cultural resources may range from prehistoric archeological sites, standing structures, such as historical buildings, or various collections of artifacts, but they all have in common the ability to provide valuable information about the people and culture that produced them. The process of effectively managing these culturally significant resources entails the finding of sites, their thorough investigation, approval or disapproval of construction on a site, mitigation against construction if deemed necessary, as well as the protection and conservation of certain sites.

Cultural Resource management, in effect, is the protection of sites against the many forces of destruction whether they be the result of natural or human causes. Nature’s primary force of destruction is erosion and proves difficult to constrain even when the site is defined. The destruction incurred by humans, however, can be controlled by an effective CRM program. Development, both private and public, premeditated criminal activity, poor archeology, as well as inadvertent destruction have and are
incurring severe blows to our cultural resources. Although no protection can be afforded to sites on privately owned property, large-scale federally-funded developments, such as dams, roads, and airports can be inhibited from destroying sites by thorough surveillance of possible sites prior to construction. Inadvertent destruction resulting from sheer ignorance of the emplaced laws, including the sale of artifacts, are virtually impossible to control. The lack of an archeology degree also permits the destructive activities of many amateur archaeologists.

Although we are prone to assuming that most sites are well defined, discrete areas of specific cultural activity, many sites are not confined to such parameters. Much culturally significant information has been accumulated from low density artifact distributions over large areas as well as sites containing limited cultural activity. The process of defining sites, therefore, is one that requires experienced archaeologists and quantitative collection of a broad range of field criteria.

Once a site has been defined, archaeologists follow an established sequence of survey methods. The first stage is a type I survey and entails a general reconnaissance of all probable sites within a large area. This is followed by a type II survey which is a more detailed analysis of a specific site, assuming one has been found, aimed at collecting historical and cultural knowledge pertaining to the site. A type III survey analyzes artifact distribution over broad areas to gain a sense of migrational patterns and trade routes. The final survey form, type IV, is an
intensive study of a small site to learn and collect everything of cultural value and significance. This fall we were engaged in type II survey work at the Longdale mining complex.

Determining whether or not a site is significant is one of the most misunderstood aspects of the CRM process. As tempting as it can be, site significance cannot be assessed by the age, size, or the importance of activities or people who occupied the site. Significance is based solely on how much new cultural information about our prehistory or history can be extracted from a particular site. It is important to stress new cultural insight, since redundancy often gives archeology a bad reputation as a waste of taxpayer's money.

Once a significant site has been located, the goal of the archaeologist is to extract all of the cultural information possible. Since complete excavation would waste valuable time and money, only a portion of the site is excavated. The site is sampled in a random way to ensure a complete, unbiased representation of the cultural information with a minimum expenditure of resources. This is often achieved by stratified-cluster sampling. Once the general site area is defined, it is divided into strata, which are, in turn, further divided into sampling units or clusters. A minimum number of these clusters are then randomly excavated to provide an accurate assessment of the entire distribution of cultural information located in the site.

The widespread destruction of sites and the absence of an effective program of CRM prior to the turn of the century was a
result of the lack of established laws pertaining to the protection of sites. An early effort by the Smithsonian to gain control of antiquities proved ineffective but gave rise to the Antiquities Act of 1906 which initiated federal protection of significant sites. Fines were placed on those who destroyed sites and a modest program of site investigation was also started; the accompanying Food and Drug Act provided permits for archaeological work. The next significant step occurred in 1935 with the Historic Site Act. The act created a National Register for culturally significant sites as well as a much more active program of site investigation. The most recent act of legislation is the Historic Preservation Act of 1966. This act expanded the National Register to include sites of local and regional significance, provided protection to those sites which qualified for the register, established state programs to actively investigate and inventory sites, and also placed State Historic preservation officers to oversee the CRM program in each state. Subsequent acts included the NEPA E.I.S. of 1969 and the Moss-Bennett Act of 1974 which demanded that up to 1% of a federally funded construction budget could be allocated to archaeological research if sites are present on the area of land intended for development.

The establishment of these laws represented a major step in the adoption of a credible national CRM program, however, several problems still exist. Most of these problems stem from the absence of an archaeology degree. The result is an abundance of unqualified professional archaeologists performing poor work. This
greatly cripples the effectiveness of any preservation process. The process is as follows: prior to initiating construction, the contractor contacts the SHPO who, in turn, provides a list of archaeologists to perform a phase one survey to locate any possible sites threatened by construction. The contractor selects an archaeologist from this list; the honor is usually given to the lowest bidder. If this survey locates a site, a new contract is made to commence a phase two survey to ascertain possible qualification for the National Register. Another contract is drawn up if the site is inducted into the National Register commencing phase three survey which entails intensive excavation and analysis. The final step is a consultation between the involved parties including the contractor, SHPO, and archaeologist to determine a long-term plan for the site. This plan usually involves the alteration of the proposed construction (mitigation), or a delay in construction to ensure the extraction of all cultural information from the site. If the construction is federally funded, archaeologists can receive up to 1% of the total construction budget to carry this out.

The problem resides at the level of the list. Since no archaeological degree exists, the SHPO cannot effectively determine which archaeologists are qualified and, furthermore, will not pronounce a certain archaeologist unqualified for fear of litigation. The worst-case scenario, therefore, is the hiring of an unqualified archaeologist who performs a poor survey resulting in a lost site. These unqualified archaeologists are difficult to
screen out since approximately 85 percent of the phase one surveys are reported as finding no sites; therefore, faulty work is often left unscrutinized.

Commonly encountered pitfalls such as this one emphasize the necessity for further improvement of cultural resource management. The future, most likely, will reveal the establishment of city and county archaeologists to further supplement the state's preservation force. The establishment of more stringent laws concerning the preservation of artifacts and cultural material as well as more intensive site location programs are also expected. Cultural resource management should not be regarded as a luxury but as a necessity. The collection and retention of our nation's rich and diverse cultural past depends on it.

Our work at the Longdale mining complex, namely that of a type II survey, has been geared toward site location and preliminary clearing and recording of surface findings. The more challenging task of accurately reconstructing the physical appearance of the complex from the remaining artifacts and foundations still remains. Although iron mining communities were common in Virginia throughout the nineteenth and into the early twentieth century, each community varies and, therefore, presents the possibility of offering new cultural insight. With the bulk of our structures offering little more than foundations, the task of creating an accurate portrayal of the community in its heyday relies heavily on the collection of data and cultural information from contemporaneous iron mining communities in the area. If many of the structures in this
community are still extant, the process becomes that much easier; however, caution must be exercised in assuming that structures from site to site are similar.

One such contemporary of the Longdale site is the Low Moor iron mining community centered in what is now the city of Covington, Virginia. Although this community was initiated some fifty years later in 1873, the proximity of the two sites, both reside in Allegheny County, ensures a high degree of technological, structural and social homogeneity. Unlike the Longdale community, however, Low Moor boasts a large quantity of extant structures, many of which have been altered minimally since their initial construction. The community was active well into the 1920's resulting in a high degree of structural preservation and maintenance. Many former employees of the iron community, as well as their sons and daughters, still reside in Covington providing a wealth of oral information concerning the site.

The major industrial structures involved in the final stages of iron-ore processing, including the furnaces, resided in what is now Covington while the majority of mining activities and accompanying preliminary procedures including ore washing took place in the mountainous outskirts rich in iron deposits. One such mining site resides in what is now the community of Rich Patch some 5 miles south of Covington. Flanked on both sides by mountains with a small water source flowing between, the Rich Patch iron mining community bears a striking resemblance to the Longdale site. Many structures, both industrial and domestic, are still extant.
providing a relatively clear view of both facets of the community in the late 1800’s.

Covington represented the headquarters of the mining complex and housed the various senior ranking administrators and community leaders. From here a railroad line connected the various mining outposts, including Rich Patch, to the central industrial center. This railroad line is still remarkably well defined and even includes a decrepit locomotive which derailed in the 1920’s (Fig. 1). Various railroad spurs would connect the numerous iron-ore mines to the central line. Mule drawn carts would transport the freshly mined ore to massive structures known as tipples located on the central line (Fig. 2). These tipples functioned as loading docks where the iron-ore would be loaded onto the railroad carts. The ore would then be transported back to Covington for further processing. Verbal accounts claim that the locomotive would make two runs a day to the Rich Patch community excluding the transport of workers to and from the site.

One of the more fascinating aspects of the Low Moor iron community was its strict social segregation. Again, the proximity of the two sites suggests that this segregation might also have occurred at the Longdale complex. In the Low Moor community three distinct social classes predominated: the whites, consisting primarily of Anglo-Saxons, the blacks, and the Italians. Obviously, the whites maintained all positions of power and did everything within that power to maintain a strict segregation between all three communities. Although a small black community
existed within "white Covington", the blacks and Italians predominately lived outside of town, each in their own discrete communities. The previously mentioned black community within town, however, was evidently very popular since it contained a tavern which was frequently visited by inebriated white employees looking for fights.

The whites took every opportunity to emphasize this segregation. Each distinct community was color coded; all the blacks lived in houses painted a certain color, while all Italians lived in houses painted another hue. One probable black community which is still extant consists predominantly of red houses, while the community at Rich Patch consists of green houses. This separation extended to cemeteries as well. The exclusively white cemetery in Covington was divided into religious denominations; Italians, however, were not allowed to be buried in the Catholic section. The various churches also emphasized segregation. The church at Rich Patch (Fig. 3) was relatively nice indicating that this community probably consisted of white miners. Efforts are still being made to locate the black church which is expected to be little more than a shack.

Assuming that the Longdale site eventually used up its iron ore resources making continued operation no longer feasible, the common practice of the time would have been to remove all valuable or reusable tools and various other equipment from the site. The communities were effectively stripped; houses were literally pulled off of their foundations and transported for re-installment in
another area. At Longdale, therefore, foundations are one of the few remaining features providing clues of the site's appearance in the 1800's. These foundations, however, contain several distinctive features which can then be compared with the extant features found at Low Moor to ascertain a fairly accurate picture of what the Longdale houses may have looked like.

The consensus of distinctive features observed at the Longdale site include predominately rectangular structures with basements containing a central hearth and foundations composed of a random assortment of field stones and red brick. Several extant structures bearing these traits are present at Low Moor. Measurements and detailed description of exterior characteristics were obtained from a particular house at Rich Patch (Fig. 4). Conversation with the owner Tom Brown, born and raised in Covington, revealed that the house has remained virtually unchanged since the 1870's. The rectangular structure is 43'3" by 15' with a front porch extending 7'6" from the main structure. The 15' by 20'2" extension in the rear of the house gives the overall structure an L-shape; however, it is possible that this rear section was added on later.

The two story house contains a basement, four rooms on the first story and three rooms on top. It displays a central chimney composed of red brick with a hearth located in the basement. The hearth is composed of field stones and brick and was later covered with cement. The foundation is also composed of field stones and brick identical to that observed at Longdale. Entrance into the
The basement is afforded by a small projection from the rear section (Fig. 5). The external features indicate a balloon frame design with an external covering of weather boards applied with wire nails. The roof is gabled with a corrugated metal covering; however, the original structure most-likely had a shingled roof. Two large, obviously original, stones serve as steps leading to the porch. An even more significant feature was the owner's dog which tried to tear me a new one.

It is likely that some of the domestic structures at the Longdale mining community greatly resembled the one examined at Rich Patch. This, however, is not certain. The Longdale mining community of the 1820's may have relied on the earlier architectural designs of log frames instead of the more recent balloon frame. Even so, later additions of balloon frame houses at the Longdale site would have undoubtedly occurred. It is important to emphasize that the house at Rich Patch was chosen due to obvious similarities to the features observed at Longdale and that this style of house was in no way indicative of the overall population of domestic structures at Low Moor. A variety of house styles was observed even within the same socially segregated communities. Our initial foundation measurements for various structures at Longdale also imply a diverse range of house styles. The Rich Patch house, therefore, offers only one of many possible external configurations of the Longdale foundations.
Figure 1. Derailed locomotive at Low Moor

Figure 1. Cement supports for tipple at Rich Patch. The tipple was a huge structure whose opposite abutment is located on the nearby mountainside.
Figure 3. Church at Rich Patch. The fairly large size indicates that it probably served the white miners.

Figure 4. House at Rich Patch constructed circa 1873.
Figure 5

Domestic Structure at Rich Patch

How foundation would appear

Entrance into basement

Porch

Possible Addition

23' 1"

12'

15'
Works Cited
