A Type I Survey of the Hollow North of the Saddle Between Little House Mountain and Big House Mountain

Thomas M. T. Turk
Anthropology 378
Dec. 11, 1983
Prof. J. McDaniel
INTRODUCTION

As students enrolled in Anthropology 378, we were asked to do a Type I survey of the hollow located on the north-east side of the saddle between Little House Mountain and Big House Mountain. Each student was assigned one section of this hollow to survey and report on. The following paper provides some background information about surveying in general, the results of my survey, and my recommendations concerning further work in this area.

GOALS

Goals are an important part of any archeological survey. After all, if we were not striving for some goal, there would be no reason to pursue the survey. One might ask the question why the is survey necessary and what are its goals? I think the primary goal of any archeological endeavor is to gain new insights on cultural activity in the past. Surveys are necessary, for they help locate sites that provide these new insights. By finding sites, it is possible to predict the location of future sites in other areas on the basis of similarities. If one finds a hollow, for example, that was heavily populated at one time he may be able to locate other hollows with similar physical characteristics and limitations and thus predict whether or not this area was populated. It is important to note, as well, that a survey does not have to locate any sites to still fulfill goals. What is not found can
be as important as what is found. It is physically and economi-
cally impossible to do detailed survey on every piece of
land. If a particular survey reveals that an area does not
contain any sites, this information can be used to predict
that similar areas don't contain significant sites either.

POSSIBLE PROBLEMS

Whenever one plans an archeological endeavor, he or she
should anticipate a number of possible problems. Although
one may not encounter any of the problems discussed below,
it is advisable to at least have some understanding of the
problems and possible solutions.

A major problem encountered by archeologists is public
skepticism. Many people feel that the knowledge gained from
archeological expeditions is not really worth the money, which
is often tax money, that it costs. The media in some ways
contributes to this skepticism by printing articles such as
one titled: "'Public Archeology': Like it or Not, You Are Paying
for Digs," which appeared in the Wall Street Journal on Aug.
12, 1977. Others in the public sector complain of repetition
on what they think are similar sites, or the lengthy time
periods that an archeological excavation takes. I think a
good deal of this skepticism stems from a lack of knowledge,
by the public, about what can be learned from archeology and
the necessary steps to gain this knowledge.

In all fairness, however, some archeologists contribute
to this public skepticism. Some people encounter archeologists
in the field and find them arrogant. These people may have a genuine interest in what the archeologist is doing, but then they are ignored or treated as if they are ignorant -- enough to turn anyone off. So called poor archeology adds to the problem as well. Under this heading are archeological digs on worthless, unproductive sites. Archeologists that fail to publish data, which make it available to the public are heavy contributors to skepticism. Archeology that is done to gain for publicity's sake, such as underwater archeology, but not to gain new insights, is seen by many as a waste of money -- especially if it is tax payers money. And then there are those archeologists that are really only in it for the fast money. Judging from the wide range of bids submitted for the Pepper's Ferry Regional Wastewater Treatment Authority Evaluation, there are a fair number of archeological firms that fall under this category. Finally, we come to the average perception of the typical archeologist. I think the majority of people see archeologists as bearded, dirty and uneducated, certainly not worthy of taxpayers hard earned money.

With some effort, archeologists can overcome a great deal of this public prejudice. To do this requires the archeologist to work efficiently and at reasonable cost. If someone asks about his work he should take sometime and explain with enthusiasm what he is doing and what he hopes to gain from his work. It is important as well that the archeologist makes public the knowledge he gains, that is, communicate with the
public at large so they understand the whats and whys of archeology.

There are a number of other problems that any archeologists may encounter in the field. It is inevitable that the weather will have an impact on the amount of work that can be carried out in the field. Obviously, if there is a great deal of rain or snow it will be hard to work. Adequate time considerations must be taken.

Other potential problems are distractions of people who are so "interested" that they interfere with your work or so obnoxious and harassing that they interfere. There are also potential dangers when working in some areas, for to some hunters, anything moving is worth a shot at.

Security of the site is of crucial importance, for in one day an outsider could intentionally or unintentionally ruin countless hours of work by stealing or rearranging artifacts, or just generally disturbing the site. One must be careful as well in the handling and transporting of artifacts to be sure nothing gets lost, mixed up or broken.

I was fortunate in my survey work for the only problem I encountered was the weather. Several cold and rainy days interfered with my plans to go on the mountain.

RELEVANT LAWS

There are a number of laws enacted by Congress in the past that have helped establish archeology as a necessary source
for providing information from the past. These laws were enacted so as to prevent the meaningful and haphazard destruction of potentially significant archeological sites.

The first major law that called for prevention of the destruction described above was the *Antiquities Act of 1906*. Congress called this "An act for the preservation of American Antiquities;" it was established to prevent destruction of prehistoric sites in the West. It had further ramifications, for all such sites located on federal lands were under this protection.

Next came the *Historic Sites Act of 1935* which preserves for public use any "historic sites, buildings and objects of national significance." The act also enables the Secretary of the Interior to identify such sites and acquire them under Federal ownership.

The *Reservoir Salvage Act of 1960* required that any area that would be damaged as a result of construction of a dam must be surveyed for potentially significant sites. An area deemed significant and feasible for protection, will receive the necessary work for protection, as authorized by the Secretary of the Interior.

A most important law for the protection of archeological sites is the *National Historic Preservation Act of 1966* which allows sites of particular historical and cultural significance to be placed on and protected by the National Register of Historic Places. This act is particularly important for it
provides monetary aid in the form of matching grants to preserve such areas. The Federal government under this act tries to coordinate federal, state, and local authorities in the preservation process. The State Historic Preservation Office system was established to help coordinate these efforts.

The Department of Transportation Act of 1966 required that all possible planning must be taken to prevent the destruction of historic sites when any land is to be used for construction. If possible, alternative lands where such damage will not occur, should be used.

The National Environmental Act of 1969 requires Federal agencies to consider the effect on the environment, which includes historic sites, any planned construction will have, and to take all measures to preserve any resource that is important in understanding our national heritage.

The Executive Order 11593 of May 13, 1971 Section 1 places further responsibilities on federal agencies to nominate and preserve significant sites to the National Historic Register. These agencies are also to encourage the development of similar programs for non-federally owned cultural resources.

Finally, we come to the Archeological and Historic Preservation Act of 1974 which expands the Reservoir Act to include certain important sites other than dams. This act requires that 1% of the money spent on federally aided projects must be spent on practices that will consider whether preservation is necessary, and if so, to see that it is carried out.
HISTORIC PRESERVATION PROCESS

There are a number of steps involved in the Historic Preservation Process. Any contractor using federal funds for a construction project must contact the state historic preservation office (SHPO). He must explain to the SHPO where the construction will take place, what kind of construction it will be, and the time frame for the project.

The SHPO then assesses the area for having potential sites by comparing the topography of this area to similar areas known to contain sites. If the SHPO feels a closer look is warranted, an archeologist will be sent to the area to do a phase I survey. This survey is used as a general analysis to determine if more elaborate surveying is needed. If the archeologist is fairly confident that the area contains important cultural resources he may request a phase III survey, which means the area is eligible for the National Historic Register. A phase III survey authorizes mitigation. Mitigation can delay construction plans until all of the available data is collected and recorded -- then construction may proceed. The contractor may have to pay up to 1% of the total cost of his project to pay for the archeological work.

If after the archeologist does his initial analysis he is not sure about the area's potential, he may request a phase II survey. Phase II surveys are more in depth than phase I but are also more costly.

In theory, this preservation process works fairly well. In practice, however, there are sometimes problems. In some
instances the contractor fails to notify the SHPO until after potential cultural resources have already been destroyed.

SAMPLING CONSIDERATIONS

Because of time and economic limitations it is seldom possible to do a total excavation of a site. As S. Rootenberg points out in his article *Archeological Field Sampling* an archeologist should try to "collect as representative a sample of elements as possible from the site with a minimum of expenditure of time, labor, and money." The reasons for this are quite obvious, for without a true representative sample the archeologist is limited on how accurate his conclusions are about the culture he is examining can be.

One cannot assume that there is a random distribution of artifacts on any site. The archeologist wants to take a valid random sample of the area without the sampling being haphazard. To achieve a representative sample the archeologist must first divide his "universe" or site into different environmental zones called strata. Any obvious artificial element should be defined as an individual stratum. In my survey work, the strata were defined as follows: hollow, steep-slope, and ridge-top. Each individual stratum is then divided into a number of potential sampling units, called clusters, by dividing the stratum with a grid system. Since each cluster can't be sampled the amount that can be must be
determined, by weighing time, economic and man-power considera-
tions. Each cluster is assigned a number and those that are to be searched are chosen using a table of random num-
bers. The size of each strata and cluster will vary depend-
ing on the entire area to be surveyed. The degree of sampling to be done on each cluster varies with size too. In my survey, each cluster was 25 ft. x 25 ft. (625 ft.²), so the sampling consisted of shovel cutting each of my chosen clusters. It should be pointed out that strata warrant the sampling of more clusters (e.g. hollow should be sampled more than steep-slope).

There are a couple of potential problems with this meth-
method, as discussed below. It is sometimes difficult to define the boundaries of strata, especially in larger areas with varying topography and ground cover. The making of a grid sys-

tem for determining clusters with string and stakes is not pos-
sible in large areas. In cases like this one must rely on a compass or a transit and a tape measure. Also, there is always a chance that some areas with potential significance will be overlooked, even though every effort was made to make a representative sample.

Although only a few were used in our survey, there are many different survey techniques that can be employed if need be. A visual search is done on all areas; this includes surface searching, which is hard with some ground covers, and ariel photos where one looks for inequalities and symmetry in the area being searched -- clues that point to patterns of
occupation. Use of instruments such as resistivity devices and metal detectors can often be helpful. These methods tend to quite time consuming. Chemical methods, such as soil analysis, can sometimes give clues to past activities. Finally we come to mechanical methods, the kinds we employed in our survey. I only used shovel cuts, but test pits and probes are often used, depending on the size and nature of the area being surveyed.

**CONTRACT PHENOMENON**

There has been in the past, and there continues to be some debate over who does the necessary survey work when construction of some things could destroy an area with potentially significant sites. Obviously it is necessary that individuals employed to do this survey work should have minimum qualifications to do so. Besides qualifications, there is a problem in determining how much should those surveying be paid.

Prior to 1977 the qualifications were a Ph.D. in anthropology or a closely related field; no experience, however, was required. In 1977 the U.S. Dept. of Interior set forth a list of necessary professional qualifications; these included a graduate degree in archeology, anthropology, or related field; at least one full year of professional training; at least 4 months exclusive experience in North American archeology; and demonstrated ability to complete such work to completion.

Determining what to pay does not, however, have any such guidelines. Price is usually determined by submission of bids,
with the lowest one receiving the work.

SURVEY TYPES

Four major types of survey have been identified. Which of the four that are used for a particular survey depend on several factors; the goals of the survey are probably the most important.

The first type of survey is the large scale reconnaissance. These surveys usually cover a broad area and try to identify all sites in this area. Reconnaissance surveys are widely used and can provide a great deal of information. Type II surveys are usually done in a search for specific site types. A large sample of artifacts is usually collected to aid identification of site types. Type III surveys are limited problem oriented. They often set out to address a specific artifact type and its distribution. Type IV surveys are the most intensive. They are usually non-sampling surveys of a small area with data collection as a major objective. They are the most time consuming of the four, but can provide the greatest wealth of information.

FIELD STRATEGY: SIGNIFICANCE OF SITES

As pointed out before, a major goal of an archeological survey is to locate sites. I feel it is necessary to point out what constitutes a site and when reviewing sites, what makes a site significant and worthy of further investigation.
I think an accepted definition of what constitutes a site is a place that represents habitation or structural activity in the past. This criteria is necessary, for if one defined a site as anywhere a few artifacts were found, he could spend his life excavating relatively worthless area where perhaps a few artifacts had been inadvertently dropped. Now that a site has been defined we must decide what makes a particular site significant. Age cannot be used as a definite criteria for determining significance. Some very old sites may provide us with no new information. Size is not a determining criteria either. A very small site such as still, for example, can give us a large amount of information about the past activity of people, while a very large site may give us nothing new. A significant site is one that provides new insights on cultural activity in the past. Under new insights there are several important aspects. Insights into social science, such as economic activity, or cultural changes are considered very important. Other important insights are those that help explain technical advance of past societies. One might question whether it really necessary to excavate the ground when there is a good deal of written history, in the form of documents from which to draw information from. In some cases, documents can provide sufficient information so that a full scale excavation is not necessary. (i.e. the canal in Buena Vista). In the majority of cases, however, there are not enough documents, or those that are found fail to provide
enough of the kind of information that the archeologist is searching for -- new insights! Sites that have a lot of meaning to the public at large, such as providing symbols or clarifying myths, can be considered significant as well. Related to sites that have public meaning are sites with monetary significance. To those paying for the survey and possible excavation area, a site that will attract the public and thus bring in money will be considered quite significant.

In the phase I survey of my assigned zone of the hollow I did find any sites, significant or insignificant.

LOCATION OF SITE

The directions to the area in which our survey were conducted are the following: take 60 west 8.9 miles, turn left on Rt. 635 (immediately past the Kerrs Creek Church) and continue for one mile to the Carter House. My site is located approximately 7/10 miles past the Carter house on the main dirt road running up the hollow.

METHODOLOGY

Our first day in the hollow was used to assign each member of the class an area to survey. As a group we walked to the uppermost boundary (where the steep slope to the saddle begins) and then walked down, assigning plots on the way. Each person received a plot 125 steps wide, and from ridge top to ridge top in length. My area was the 5th one from
the top. The following is a numerical sequence of the steps I did in completing a survey of my area.

1) Using a Brunton Pocket Transit I decided to use the line 73° W of N (107° E of N) as a border line running from ridge top to ridge top. From the dirt road I walked to the top of one ridge counting my steps (each step = 2.0 feet) on this line. When reaching the top I turned 90° and walked 150 steps along the ridge top, turning 90° again and walked back down to the road -- thus giving me measurement for ¼ of my rectangular area. This step was repeated on the other side (East) of the road to give me complete measurements of my area. All measurements were recorded.

2) To verify the accuracy of my walking measurements I returned to my area with the transit. I shot a line (73° W of N) and noted the angle of spotting scope when shooting the line to the ridge top. I then figured the differences in attitude between my location on the road and the respective ridge top by using the U.S. Geological Survey Map of the area. Using this data and the sine function, I could calculate with accuracy the distance from road to ridge top as the hypotenuse for each of my four corners. As it turns out, my walking measurements were pretty accurate.

3) It was then necessary to choose a base point from which to locate strata and clusters. I chose this point to be on the northern border of my area at the edge of the jeep trail that runs up between the two House mountains (the jeep trail is
clearly marked on the U.S. Geological survey map of the area). A stake was hammered in the ground to mark this point. The coordinates of this base point are

4) I next defined my strata as hollow, steep slope, and ridge top. I walked off the relative size of each strata.

5) With strata defined I set out to define my clusters. On Jim Adams' advice I decided to make each cluster 25 ft. x 25 ft. Using the data I had collected I made a rough map of my area on graph paper -- each square representing a 25 x 25 ft. area. I calculated the total area of each individual stratum and numbered each cluster within each separate strata. Weighing time considerations I decided I would survey 7 clusters: 1 on each ridge top, 1 on each steep slope and 3 in the hollow (see map for location). By drawing numbers from a hat I picked the clusters that I was to survey. Using a protractor, a ruler, and a calculator I figured the angle and distance of each cluster from my base point.

6) The next step was to do shovel cuts on each of my clusters. Working with my sketch maps and a Brunton Pocket Transit I located each cluster in relation to my base point. In each cluster, shovel cuts were done. Shovel cuts involve digging 1 ft.³ holes every five feet across the one diagonal of the cluster. This was repeated across the other diagonal thus forming an X over the cluster.
SHOVEL CUT DATA

Cluster 1 120° W of N
hollow 150 ft. from base point

Nothing was found on the cluster from the shovel cuts. The soil was rich in organic material. Several inches of leaves covered the soil.

Cluster #2 83° W of N
Steep Slope 350 ft. from base point

Nothing was found in this cluster. Soil was fairly rich but thin, for the slope was quite steep.

Cluster #3 100° W of N
Hollow 550 ft. from base point

This cluster was located right next to a dry creek bed. Nothing was found from the shovel cuts.

Cluster #4 82° W of N
Ridge Top 750 ft. from base point

This area was fairly level. Shovel cuts, however, revealed nothing. The area was probably not used for farming, but was probably cleared for timber as evidenced by a number of large tree stumps.

Cluster #5 163° E of N
Hollow 250 ft. from base point

This area was fairly level and was mostly used for farming. Most of the trees were young hardwoods. Shovel cuts revealed no artifacts.
Cluster #6 123° E of N
Steep Slope 450 ft. from base point

The soil was exposed and highly eroded. Shovel cuts revealed no artifacts.

Cluster #7 120° E of N
Ridge Top 625 ft. from base point

There was a dirt road running the length of this ridge top that Jim Adams said was probably used as a down road when the area was logged. Shovel cuts revealed no artifacts.

DATA ANALYSIS

As one can see from the cluster data presented above my area was quite unproductive. It is difficult to reconstruct what kind of occupation occurred in my area without any artifacts to work with. Judging from the relatively young age of the trees and the general lack of large rocks in most of the area I do think it is safe to assume that my area had been cleared and used for some type of farming. The presence of the dirt road along the eastern ridge top, as well an abundance of dirt roads in the whole hollow supports that at least some of the area was cleared for timber. The presence of a number of large tree stump, especially near the ridge top, which I believe are from chestnut trees give us a rough approximation of when the area was last logged; the chestnut blight hit this area about 80 years ago.
RECOMMENDATIONS

After my survey work I do not feel that my particular section of the hollow is worthy of any further investigation. I feel that my type I survey of the area provided a true representative sample of each of the environmental zones and thus reflects the cultural resources located there.