Archaeological Survey of the Chessie Trail

Jay K. Stratton
Anthropology 378
December 13, 1982
I. Federal Legislation

Archaeology in the United States has been helped significantly in the last 75 years or so by laws and amendments designed to protect sites—both established sites and potential sites. The first of these laws was the Antiquities Act of 1906 which protects sites and natural monuments on federal property from destruction and trespassing and allows for investigation when the law is broken.

The National Park Service, created in 1916, was given further duties by the Historic Sites Act of 1935. This act instructed the Park Service to make surveys, secure data, and investigate archaeological and historical sites anywhere in the U.S. in order to determine which might be of national value. It also authorized the Park Service to enlist the aid of any other federal, state, or private agencies to accomplish these duties. The Historic Sites Act also established a National Register for nationally significant sites. In the view of the archaeologist, the Historic Sites Act was the gateway for many opportunities in the field of archaeology.

The most important law concerned with archaeology
is the Historic Preservation Act of 1966. This law has 3 major tenants:

1) It expands the National Register to include sites of regional and local significance as well as national significance.

2) It established State Historical Preservation Officers (SHPO) who are in charge of placing state, local, and national sites in their state on the National Register.

3) It says that the Federal Government will subsidize programs by matching federal grants for states to finance archaeological projects.

The National Environmental Policy Act of 1969 requires that all federally funded projects prepare an Environmental Impact Statement (EIS) and to work in such a way as to do the least possible damage to archaeological sites. Executive Order 11593 of 1971 specifies that before work is conducted on federal lands a check must be made to see if these are sites worthy of being placed on the National Register which might be affected. Thus, the combination of these two laws require that federal agencies have to begin to carefully assess the impact of projects on archaeological sites and develop methods for avoiding or mitigating these effects. An even more specific law concerning this is the Moss-Bennett Act (otherwise known as the Archaeological and Historic Preservation Act of 1974). It provides for bigger, broader grants to salvage work and instructs federal
agencies to consider the dangers their activities pose to archaeological data. This act authorizes that agencies must spend their own money (up to 1% of their construction budget) on archaeological survey work.

II. National Register

Not every site is said to be of potential archaeological value, thus not every site is deemed worthy of the National Register as a historic landmark. For nomination to the National Register, a site must contain at least one of the following criteria:

1) It must contain irreplaceable cultural information that has not been previously obtained.

2) It must be associated with a great man or great event in the eyes of the public.

3) If the site will result in beautification, and is in the public's best interest.

4) It must provide data that would reveal facts about history or prehistory that could in turn re-write documented history.

Candidate sites require forms that are drafted and sent through a series of operational levels. They may be proposed from the regional office (like W and L University) and then passed on to the central office in Williamsburg. Should they pass inspection and be stamped with approval they are then forwarded on to headquarters in Washington, D.C. where the final vote will determine whether the proposed site meets the criteria of the National Register.
III. Historic Preservation Process

The Historic Preservation Process is a process that is used to protect potential archaeological sites from destruction due to construction of dams, highways, sewer systems, etc.

When a construction project is first being considered by a Federal agency, its planners meet with the State Historic Preservation Officer (SHPO) to determine what will have to be done to identify both historic and prehistoric sites and buildings that may be affected by the construction. Field surveys, background research, and other studies are then done, all financed by the Federal agency. These should result in identifying everything that could be eligible for listing on the National Register. The results of the surveys and studies are then reviewed by the SHPO and National Register staff to determine if these properties are actually eligible. If they are, the proposing agency consults with the Advisory Council on Historic Preservation and the SHPO to seek ways to avoid or reduce damage to the properties. The consultation process results in a "Memorandum of Agreement" specifying what the agency will do to protect the properties, or to minimize damage to them. The agency then carries out the terms of the Memorandum, as project planning and construction proceed.
IV. Funding

Should the Archaeologist determine that a site is in need of future testing and excavation, then funding becomes critically important. Where are we going to get the money? The archaeologist must set about raising the capital that will go towards labor, equipment, and other archaeological expenses. The archaeologist has been aided in this procedure by the Federal Government, in its passing of legislation that has created agencies that provide for the preservation of potential archaeological sites. Arlen J. Large in his article "Public Archaeology: Like It or Not, You are Paying for Digs", estimates that the Federal Government is spending 20 million dollars a year towards public archaeology. Most of this, is a result of the Moss-Bennett Bill which provides for bigger and broader grants for salvage work.

The Environmental Protection Agency (EPA) is the major source of funds for Archaeologists, as are the National Park Service affiliated with the Department of the Interior, the Federal Highways Administration affiliated with the Department of Transportation, and the Department of Housing and Urban Development (HUD).

Other organizations such as the Smithsonian Institution or the National Geographic Society may be persuaded to help.
The quickest way to acquire funding is to place an area on the National Register, which immediately makes money available through the Virginia Historic Landmarks Commission.

V. Sampling Procedures

S. Rootenberg in his article "Archaeological Field Sampling", proposes four different methods for sampling a site. Sampling is different from excavation, in that it provides the objective to collect as a representative a sample of elements in a certain time with a minimum expenditure of labor and money.

The first method is Surface sampling or searching. This entails a surface search for artifacts on top of the soil. The results could aid in determining where to concentrate further sampling and excavation. In my area, the surface search was used mainly as a means of determining where to place shovel cuts. The surface search produced only enough fragments and sherds to aid in location of shovel cuts and was not significant enough to constitute a possible site.

The second technique is Partial Sampling. This method entails only preserving artifacts that are distinguishable and discarding all others. This technique is inaccurate
and does not provide a balanced representation of the site as a whole. Due to the lack of artifacts found and its inaccuracy I did not incorporate this method in my work.

The third technique is called Complete Sampling and stipulates that all material found be bagged and analyzed. This includes any visible artifacts as well as geological evidence that might suggest human occupation. At first, I employed this technique, but after only the first test pit I discontinued this method. I did not analyze the artifacts from Test Pit I because of time and the fact that all except one were distinguishable (bricks, railroad tie, and ceramic).

The last technique is the Column Sampling technique. This method suggests that the archaeologist cut into the vertical wall of a previously dug test pit and depending upon the stratigraphy, bag the artifacts accordingly. This technique is primarily used when interested in the agricultural aspects of a site, or when an abundance of food materials are found at the surface level. I did not employ this technique due to the fact that I had virtually no stratigraphy in my test pits, and there was a high probability that my area was disturbed by flooding and plowing (agricultural and post-flood plowing).
The technique that I did use, was discussed but not outlined by Rootenberg, and is called the Stratified-Cluster Sampling technique. This entails randomly sampling a geographic area so as to assure that an unbiased representation would be achieved. This technique requires that a site be divided into an arbitrary number of primary areas called strata and that each strata be further divided into areas called clusters. I used a table of random numbers in determining test pit locations in both strata 1 and 2, and luckily they were located in areas that seemed suitable and that would allow for a fair representation of each strata.

VI. Survey Techniques

Survey archaeology is based on evaluating a site or area from a sample of artifacts because it is not possible to do extensive excavation. How this sample is determined is important to the final result, thus a system must be developed before starting. There are basically two types of testing, one is features and the other is random. Usually a combination is used.

Reynold J. Ruppe, in his article "The Archaeological Survey: A Defense", there are four major methods in which to survey a site. The first type is the Reconnaissance or Exploratory Survey. This method entails an extensive survey
that is a large scale effort designed to cover a lot of territory rather quickly. The United States has been surveyed in full, and this method provided members of the Geodetic Survey Corps with an efficient and time-saving technique. I did not have the labor force nor the time necessary for such an extensive survey. The second type of survey is a Brief survey conducted in conjunction with a specific excavation program. The third type of survey is a Limited Survey which is problem oriented. This method is used for specific and usually explicit reasons. This method was not employed because my area did not have the attributes to meet the criteria of a Limited survey. The fourth type of survey is the Intensive survey. This method requires careful study of the surface to try and milk as much information as possible before excavation. To a limited extent (with relation to time and labor) this was the surveying method that I employed. Surface searches of the area were conducted, shovel cuts of the surface were done, as well as test pits being placed randomly throughout the survey area.

VII. A Summary of My Work on the Chessie Trail

First, I walked and observed my area looking for areas that might prove to have contained sites. I then drew a
rough map, and tentatively proposed shovel cut lines. After completing the shovel cuts and finding nothing significant, I became engaged in a conversation with a man known only as, in his words, "Mrs. Sheppard's Brother-in-law". He proceeded to tell me about the flood of 1969 and how my entire area was flooded. This led me to deduce that much of my area had been disturbed (by flooding, and post-flooding plowing) and that I probably would not recover many artifacts (which was the case). He also told me of a house that was in my area, that had burned around the turn of the century. Thus I sectioned off this area as Strata #2. After further surface searches in Strata #1 (the floodplain) which proved to be fruitless except for a few insignificant sherds of quartzite, I proceeded in determining the number and locations of my test pits, this was done randomly (with a table of random numbers) and the results provided good representations of my area. Only test pit number one proved to be of any significance producing bricks and one piece of ceramic that could indicate a structure such as a house. Yet, due to probable flood disturbance further testing should not be undertaken. All test pits were then re-filled and photographs were taken.
VIII. Problems

Usually there are problems with weather, access to site, or unwillingness of the property owner to allow archaeological work done on his property. These were not the case. The weather was perfect, access was good, and Mrs. Sheppard welcomed me to work on her property. The only problems I did have were transportation (some days I couldn't find a ride) and gaining access to the transit. Eventually the Brunton compass was used for locating test pits and datum points.
VIRGINIA RESEARCH CENTER FOR ARCHAEOLOGY
SITE SURVEY FORM

Name of site: Bench Mark House

Type of site: Historic ruin (house)

Map reference: USGS 7.5 min. quadrangle - Lexington

Latitude: 38° 02' 17" north. Longitude: 78° 02' 10" west.

U.T.M. Zone: 17, Easting: 6402170, Northing: 4180210

Owner/address: Mrs. E. L. Sheppard, 159 Rte. 608, Lexington, Va.

Tenant/address: Same.

Attitude toward investigation: Favorable.

Informant/address: Mrs. Sheppard and brother-in-law, name/address N/A.

Surveyed by: Jay K. Strutton

Date: December 9, 1982

General surroundings: Located approximately ½ mile SW of junction of Maury and South rivers, SW of Rte. 608, between ridge and Maury river. Next to Cheese Trail. Next to Bench mark 869. NW

Nearest water: nature, direction and distance: Maury river 300 ft. away, flowing SW. Also spring ¼ source due South approx 350 ft. away.

Dimension of site: 240' x 90'

Description: depth, soil, collecting conditions: Most of the soil is a brown, sandy loam with small areas of red clay. Contains particles of coal & large particles of outcrops of shale. Area is primarily flat and is about 5 ft. higher than rest of floodplain. Collecting conditions were good. Soil was easily broken and easy to search. Brick, brick pieces, and ceramic could indicate structure, but no flooding could have washed entire area away.

Specimens collected: kinds, quantities, materials: 2 bricks, 2 or 3 brick pieces, 1 railroad tie, 1 unknown piece of iron, 2 unknown blueish, spherical rocks, piece of white ceramic, and a few sherds of quartzite, quartz.

Specimens reported, owners, address: Brother-in-law of Mrs. Sheppard says he has arrowheads from the area.

Other documentation: reports, historical data: N/A

Condition: erosion, cultivation, excavation, construction: Cultivation in some areas, with probable flood damage and erosion in strata #1 and #2 due to 1969 flood.

Recommendations: Further testing should be done in strata 2 (Bench Mark House)

Photo: Yes, accompanying report

Recorded by: JKS

Map: attached Xerox + other

Date: 12-9-82

(Use reverse side of sheet and additional pages for sketches of site and artifacts)
Bibliography

Large, Arlen J., "Public Archaeology: Like It or Not, You are Paying for Digs", The Wall Street Journal, August 12, 1977.

Rootenberg, S., "Archaeological Field Sampling"