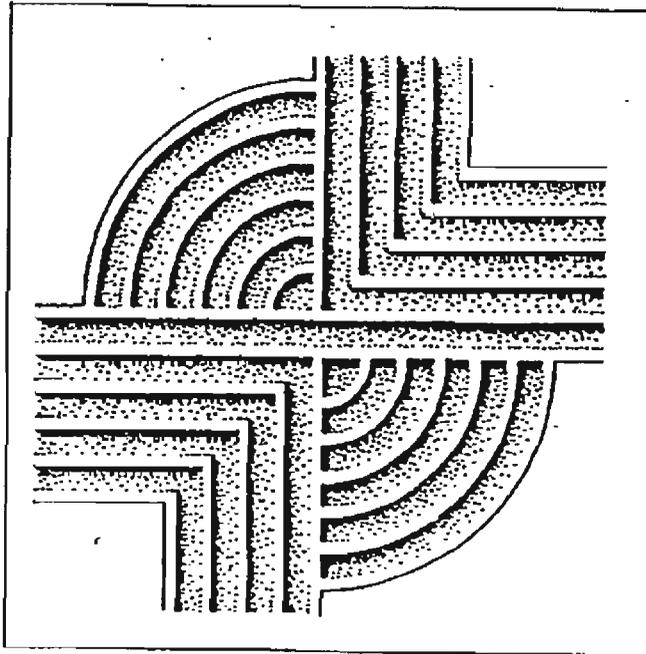


# FINDING AND ASSESSING ARCHAEOLOGICAL SITES USING TRADITIONAL COMPLIANCE TECHNIQUES



## RESEARCH CONTRIBUTION 136

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**FINDING AND ASSESSING ARCHAEOLOGICAL  
SITES USING TRADITIONAL COMPLIANCE  
TECHNIQUES  
(OR: WORDS, WORDS, MERE WORDS)**

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I realize that I am embarking on a dangerous task in giving this paper. On the one hand I risk causing massive fatigue on the part of the non-professional audience, while on the other I risk being ignored by my professional colleagues.

Shovel-testing, as part of the compliance program for site discovery, has faced a number of reviews and challenges. In fact, between 1986 and 1989 *American Antiquity* was ablaze with statistical arguments, counter-arguments, and insults (Lightfoot 1976, 1989; Nance and Bell 1986, 1989; Shott 1989). At least as early as 1983 the local literature included a discussion of shovel testing (Davis and Ward 1983). One camp saw shovel testing as "the most efficient discovery technique now available" (Lightfoot 1989:413) while the other saw the technique as either too time and labor intensive (Davis and Ward 1983:13) or as a failed technique that was allowing site destruction (Shott 1989:403). In 1990 Scheele, apparently speaking for the federal compliance program, stated that shovel testing would continue until something better comes along (Scheele 1990:6). And so it goes.

It seems that much of the argument has been conveniently ignored. For example, I see no real discussion of shovel testing effectiveness in compliance reports. In fact, it is almost as if shovel testing is done -- at either 30 or 60 meter intervals -- as a matter of rote. Perhaps we have created a situation where it is easier to do so than to step back and examine the situation, our data, and the debt we owe the resources.

Over the next few minutes I will present some information on site discovery from a variety of South Carolina sites.

The first example is from the early nineteenth century Shoobred Plantation on Kiawah Island. There one of our colleagues conducted a traditional compliance survey using shovel tests at 100 foot intervals (Poplin 1989). The plantation was found, on the basis of 75 shovel tests (64 of which were positive) to cover an area of about 650 by 1625 feet or roughly 24 acres. Two "house ruins" were identified on the basis of the survey. Based on the *Guidelines and Standards for Archaeological Survey* developed by the South Carolina State Historic Preservation Office this was a perfectly competent and professional survey. The shovel tests were at least at 30 meter intervals and the researchers had historic documentation of the plantation.

In spite of this only two of the eight structures (see Trinkley 1993) we eventually found were recorded by the survey. One of the two originally defined structures was found to be a massive brick cotton storehouse while the other was found to be an even more massive, and very elaborate, main plantation house, the footprint of which covered in excess of 1,500 square feet. Other structures included two wings or flankers, one of which was excavated and found to be a combination kitchen and servants' quarters covering nearly 600 square feet, perhaps two stables, an overseer's structure, and several additional domestic structures.

In this particular case the survey provided a gross location for the plantation but failed dismally at providing the level of refinement necessary to ensure that the resource was protected through adequate data recovery. How might the survey level information been more predictive? It would probably have been necessary to conduct very close interval testing -- perhaps at 20 to 50 foot intervals.

In fact, this issue was examined at one of the stable sites. Consisting of a small mound of brick rubble about 50 feet in diameter on the surface and with about a two foot rise, the site was not identified during the original survey. It appears that the 30 meter or 100 foot transects simply missed the rubble pile on all sides. And while historic artifacts were found they were sparse and appeared to have little or no context -- consequently the site area was never discovered.

During our work on Kiawah a grid was established over this rubble pile, extending 80 feet north-south and 60 feet east-west. Initially 20 12-inch auger tests were placed over the site at 20 foot intervals. While brick rubble was recovered in four of the tests at the 20 foot interval only one historic artifact was found. An additional 43 auger tests decreased the test interval to 10 feet. At this intensity only four additional historic artifacts were recovered -- all from one test.

Even at very close interval testing, using a grid established over the heart of the site, only five historic artifacts were found from two tests. Curiously, however, when a metal detector was used at the site, walking a series of three north-south transects, 15 "hits" were quickly encountered resulting in the recovery of 20 artifacts. It was on the basis of these artifacts that site function was assigned.

Equally interesting data was obtained from two late nineteenth and early twentieth century tenant sites in Florence County, South Carolina. During the initial survey these two sites were found in plowed fields. Site boundaries were based on artifact recovery from the surface and from a series of shovel tests placed at 50 foot intervals bisecting each site north-south and east-west (Trinkley et al. 1993).

One of these tenant sites, 38FL235, was subsequently plowed and then investigated through a controlled surface collection using a 25 foot grid encompassing an area 175 feet east-west by 225 feet north-south. This created 63 collection units, each of which was totally collected with these collections used to generate artifact density maps. All of these density maps offered the same generalized information -- the concentration of artifacts appears to be in the southwest quadrant of the collection grid. In other words -- the traditional shovel testing approach used in compliance archaeology, even combined with surface survey, did not allow the southern limit of the site to be accurately defined. In fact, even to the north the site limits seem to have been only approximately defined, since kitchen related artifacts are found to the very edge of the collection grid. While it is not surprising that the controlled surface collection was able to more clearly define site areas than the initial cruciform shovel testing, it is surprising -- and disturbing -- that

the shovel testing was unable, with any reasonable degree of accuracy, to define the southern site boundary.

A second Florence site, 38FL269, was similarly divided using a 25 foot grid over an area measuring 200 feet east-west by 300 feet north-south, again using the original shovel test defined site boundaries. Here the results were even more startling and the near absence of artifacts forced us to extend the collection grid to the east an additional 125 feet.

These investigations at these two Florence sites provide good evidence that traditional shovel testing -- conducted at close intervals bisecting the site and screening the fill -- even under seemingly ideal conditions of a fallow to lightly cultivated field, will fail to accurately identify site boundaries in at least one or more directions. This has serious implications in accurately defining green spacing boundaries, determining the location of sites relative to project impacts, and even determining appropriate sampling strategies.

Although there are additional examples, such as our work on Daufuskie identifying slave house sites, the point should already be clear. Shovel testing can and does find sites. And I think most of us would agree with Scheele that it is the best tool we currently have to identify sites, especially in wooded areas. The problem is that the technique's limitations are not being either explored or addressed. "Cook book" archaeology where shovel tests are conducted at 100 foot intervals may be successful at keeping us "out of trouble" with the SHPO, it is failing to provide the kinds of information necessary to protect and preserve the public's heritage.

## Sources Cited

Davis, R.P. Stephen, Jr. and H. Trawick Ward

- 1983 *Archaeological Survey and Assessment of the Harris-Asheboro 230 kV Transmission Line, Chatham and Randolph Counties, A Case Against Shovel Testing*. Research Laboratories of Anthropology, University of North Carolina, Chapel Hill.

Lightfoot, Kent G.

- 1986 Regional Surveys in the Eastern United States: The Strengths and Weaknesses of Implementing Subsurface Testing Programs. *American Antiquity* 51:484-504.
- 1989 A Defense of Shovel-Test Sampling: A Reply to Shott. *American Antiquity* 54:413-416.

Nance, Jack D. and Bruce F. Ball

- 1986 No Surprises? The Reliability and Validity of Test Pit Sampling. *American Antiquity* 51:457-483.
- 1989 A Shot in the Dark: Shott's Comments on Nance and Ball. *American Antiquity* 54:405-412.

Poplin, Eric

- 1989 *Archaeological Resurvey and Evaluation of Six Sites, Rhett's Bluff Development Tract, Shoolbred Point, Kiawah Island*. Brockington and Associates, Atlanta.

Scheele, Harry G.

- 1990 Comments on Shovel-Tests in Archaeological Survey. *SAA Bulletin* 8(3):6.

Shott, Michael J.

- 1989 Shovel-Test Sampling in Archaeological Survey: Comments on Nance and Ball, and Lightfoot. *American Antiquity* 54:396-404.

Trinkley, Michael, editor

- 1993 *The History and Archaeology of Kiawah Island, Charleston County, South Carolina*. Research Series 30, Chicora Foundation, Inc., Columbia.

Trinkley, Michael, Debi Hacker, and Natalie Adams

- 1993 *Life in the Pee Dee: Prehistoric and Historic Research on the Roche Carolina Tract, Florence County, South Carolina*. Research Series 39, Chicora Foundation, Inc., Columbia.

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