Remote Sensing Reveals a Sacred Precinct on Etowah's Mound A

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The Etowah site is one of the largest and most famous mound centers in the Interior Southeast. Its fame in large measure comes from the spectacular array of elaborate ceremonial objects recovered from the site’s burial mound, Mound C. Etowah is also well-known because its largest mound, Mound A, is one of the tallest in the Southeast—standing some 21 meters tall.

Archaeological investigations have been conducted at Etowah for over a century. Despite this fact, there is a great deal we do not know about the site.

In 2005, a multi-institution team conducted remote sensing surveys at Etowah. Lannan Foundation of Santa Fe, the University of South Carolina, and the Muscogee (Creek) Nation of Oklahoma funded the project. The goal of the project was to determine if a suite of geophysical techniques could help identify old excavation units and buried features at the site. What follows are interpretations based on data reported by Schultz et al. (2006).

We approached the survey armed with three geophysical techniques: ground penetrating radar (GPR), resistance, and magnetometry. Johnnie Jacobs, Tim Thompson, and Joyce Bear of the Muscogee Creek Nation of Oklahoma, Cultural Preservation Office, operated the GPR unit, a GSSI SIR-3000 with a 400 MHz antenna. Given the excellent ground cover conditions at Etowah, a cart and survey wheel were used. Data were collected in a zigzag pattern along the X axis at 5-meter increments with a 100 nanoseconds time window.

Chet Walker and Clay Schultz, doctoral candidates at the University of Texas at Austin, collected resistance and magnetic data using a Geoscan Research RM-15 resistance meter with a 50-centimeter twin probe array and an FM 36 fluxgate gradiometer. They also collected data in 20 X 20 meter blocks following a zigzag pattern.

All of the collection blocks were positioned over the areas of interest using a newly established, permanent grid system for the site using a TDS. In addition, the locations of collection blocks were recorded in UTM’s using a global position system. Chet Walker, using Geoplot, and Johnnie Jacobs, using GPR-Slice, are completing the ongoing data processing.

The crew was rounded out by Kent Reilly, Duncan McKinnon, and Chad Moore of Texas State University at San Marcos; Adam King of the University of South Carolina; Robert Sharp of the Art Institute of Chicago; Connie and Mandy Hodgson of Winthrop University; and Barbara Kucalich of the State University of West Georgia.

Without question the most exciting results were returned from our surveys on the summit of Mound A under the direction of Lewis H. Larson in 1994 (King 1995). By that time Etowah was a state park, so I was not held to the same standard as Moorehead. We excavated two 2 X 3-meter units at the extreme northern edge of the summit. In those units we recovered daub and midden on top of mound fill, indicating an intensive Late Wilbanks phase (AD 1325-1375) occupation of the last summit stage. The deposits had clearly been plowed, and this information supports reports by the Tumlins that the summit was used to grow watermelons during the late 19th and early 20th century. During that time, a mule team plowed the approximately one acre of land.

Given the size of Mound A and the evidence for an intensive use of its summit, we expected to find the remains of structures there. We were not disappointed, as evidence for buried structures was found using all three geophysical methods. By far the most interpretable data set was produced by the gradiometer. The magnetic data collected revealed the possible remains of as many as four buildings and associated architecture goods in Mound C in the late 19th century, so attention was naturally focused there. Henry Tumlin, whose family owned Etowah for generations, once told me that his grandmother refused Warren K. Moorehead’s request to dig on Mound A because she did not think he was smart enough.

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and open spaces in a 40 X 40-meter block that almost entirely covers the mound’s summit. Unlike GPR, the magnetic data does not include information on depth below surface. However, it seems likely that the buildings revealed were built on the last stage of Mound A.

Structure 1 is the largest building on the mound summit, than contemporary residential structures in the region whose floor areas tend to range from 37 to 65 square meters (Lewis 1995). Actually, it is larger than most contemporary non-residential structures in the region, which cover from 47 to 204 square meters (Lewis 1995). In fact, only one building recorded at Etowah is larger than Mound A’s Structure 1.

Structure 1 is the largest building on the mound summit, measuring approximately 16 X 18 meters. This is a very large building by Mississippian standards, with a floor area of 288 square meters. Without excavation data it is difficult to understand the function of the building, but it is significantly larger from the rest of the structure. This calls to mind French descriptions of the temple at the Natchez capital in the 18th century. This building had a partition creating a small room where the holiest of the holies were kept and where only certain people were

That building is Larson’s Structure 5, recorded in Early Etowah phase (AD 1000-1100) deposits beneath Mound C, and it had a floor area of 405.6 square meters.

Structure 2 is smaller than Structure 1, which measures 81 square meters on the floor (9 X 12 meters), but it is still larger than residential buildings in the region. It is positioned at the back of the mound, furthest from the site’s plaza and the mound’s elaborate staircase. What makes it particularly interesting is the fact that it appears to have a partition segregating a three-meter segment of the building...
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allowed to go upon pain of death (see DePratt 1991). Again, without excavation data this remains just a tantalizing possibility.

smallest of the buildings on the Mound A summit (6 X 8 meters), its floor area still falls on the upper end of the residential building distribution.

not necessarily have to do with the depth at which it is buried, but likely has more to do with the nature of its archaeological deposit. It is simply less magnetic than the other

Structure 3 is also located on the backside of Mound A and is separated from Structure 2 by an open space. Although it is the second largest building on the mound (15 X 12 meters or 180 square meters) and significantly larger than

2005 Magnetic data collected from the summit of Mound A at Etowah. (SCIAA graphic)
both contemporary residential and public structures in the region. Also, it seems to share a wall with Structure 2. Without excavating these buildings, it is difficult to determine whether they were contemporary and conjoined or were built sequentially.

Besides the clear outlines of these four buildings, there are two other pieces of architecture that stand out. A single wall offset to the north of and running at right angles to the east wall of Structure 1 represents one. The survey unit is positioned such that it is unclear as to whether there is a parallel wall to the south and a perpendicular wall to the east forming another building. If it is another building, its east wall rests at the very edge of the mound summit. Although this is largely conjecture, it may be that this represents a porch rather than a structure whose open end is visible to people in plaza below—a stage for the kinds of public displays Mississippian chiefs were known for.

The other wall of interest runs at a right angle to this porch and extends to the north. There is not enough room to make another building out of this wall, so I hypothesize that it represents a screen. Behind that screen, to the west, is an area of low magnetism surrounded by buildings on two sides. This looks to be an intentionally designed open space. The screening wall on its east side may also continue on the north, but if so it is on the very edge of the mound summit. Presumably, the screen would have been designed to block views from below of activities in this courtyard, and in and around Structures 2, 3, and 4. At this same time, it likely focused attention on the porch. While this is likely stretching the data farther than it should to, there is an open space between the porch and screen walls that lines up nicely with the axis of the mound’s ramp—as if this was the entrance to the complex.

Essentially, this set of architecture creates a precinct of buildings and open space on the summit of Mound A. Internally it is arranged in a manner similar to many Mississippian mound towns, which have a series of mounds arranged around an open plaza. This arrangement in turn must be related to the structure of later Creek ceremonial grounds (see for example Hudson 1976). As described historically, these had an open space, occupied by a central hearth and flanked by architecture associated with summer town councils and the important Green Corn Ceremony. The fire in the center of these places recreated the center of the cosmos and ultimately created a sacred space in which important ritual took place (Lankford 1987). On the summit of Mound A, most of this took place behind a screen and was clearly not meant to be viewed publicly. However, there was a place for public displays—the porch associated with Structure 1—and conveniently it faced east. At least some early historic descriptions, particularly the Natchez, describe a clear link between chiefs and the sun. (DePratter 1991).

My remote sensing colleagues are always quick to remind me that what they find are anomalies in data collected using various geophysical prospecting methods. Those interpretations we make from those anomalies are at best educated guesses that can only be verified through some level of archaeological excavation. Until we attempt those excavations, the interpretations I put forth here must remain educated guesses.

References


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