

# Ongoing Research on the MAHS Pamunkey River Project

By Dennis Knepper and John Kuch

In early February of 2006, a small team of MAHS researchers returned to the White House Landing site for a day of mapping and recording. The focus of the work was Hull #1, which lies between White House Landing and the railroad bridge at West Point. The vessel is situated at the waterline and is partially exposed during low tide. The project was thus timed for the coincidence of low tide and midday on a weekend day, allowing the team to travel to the site from Washington and return in a single day.

A map of the vessel had been initiated as part of the field school in November (see the lead story in this issue of *MAHSNEWS*). The baseline used for that work was re-established and then re-oriented somewhat to extend directly along the centerline of the hull. The compass orientation of the baseline was recorded and both ends of the line were surveyed to permanent datum points placed on the terrace above the floodplain of the river.

Winds were blowing out of the southeast the day of the survey, and they acted to contain the water flowing downstream toward the Pamunkey's confluence with the Mattaponi at the York River. The effect of the winds was keep the tide from fully ebbing so that the wreck stayed submerged even at lowest ebb. Nevertheless, extensive probing along the submerged stern and the starboard side of the vessel allowed the team to make accurate measurements of the length and beam of the surviving portion of the hull.

In the portion of the bow that was exposed, a keel-like stem post was present that extended a short way into the hull, but did not connect with a keelson. Thus it was unclear whether or not the vessel was keeled. Careful work beneath the bow established that a keel-like timber was present in that location. The timber was found to



*Bow section of Hull #1 showing keel-like bow stem.*  
Photo by T. Berkey.



*Tom Berkey records measurements as Steve Anthony examines timbers beneath the bow section of Hull #1.*  
Photo by D. Shaw.

reach deep into the muddy sediments along the stream bank, but with some concerted effort the molded dimension (the depth) of the timber was recorded.

In spite of the fact that the tides did not cooperate fully, making the documentation tasks that had been planned more difficult to complete, the main goals of the day were met. The team felt that the day trip to the site had been worthwhile and that good data had been collected.

In late March, another team of MAHS researchers returned to White House Landing, this time to work on one of the terrestrial portions of the site. Prior to the Civil War, the White House plantation was owned by the Dandridge and Custis families, and it was at White House that George Washington courted and eventually married Martha Dandridge Custis. The overseer of Washington's Mount Vernon estate outside Washington, D.C., James Anderson, came to manage the White House plantation following the deaths of George and Martha. Anderson and his wife, Helen, were buried near the house. The exact location of the graves has been lost. MAHS member, John Kuch, a detective with the Fairfax County Police Department, offered the services of thermal imaging equipment used in surveillance and crime investigations in an attempt to locate the graves. The imager operates by detecting differences in surface temperature between objects. Excavated and redeposited earth, such as would be found in a grave, absorbs and retains heat more readily than undisturbed ground. Modern graves are easily located using thermal imaging technology. But use of the technique in archaeology was



*White House in 1862, prior to being burned to the ground by McClellan's retreating forces.*

considered experimental, since it was unclear at the outset how well 200-year-old excavations might be detected.

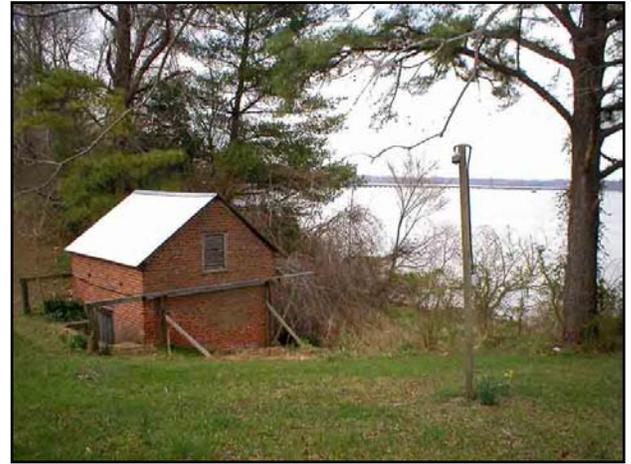
James Harris, New Kent County historian, pointed out the general area in which the graves were thought to be located in a large, open yard area northwest of the White House foundations. A baseline was established across the field, and 25-foot-wide survey lanes were laid out perpendicular to the line. The thermal imager is about the size of a small, VHS video-cassette recorder, and passes were made walking slowly while sweeping the imager across the ground surface within each survey lane.

The results of the survey were somewhat less positive than anticipated. Two unusual, oval-shaped anomalies were detected and mapped. While clearly not grave shafts, they consisted of ring-like alignments, possibly the remnants of stone or brick walls. The



*Surveying with the thermal imager: B.Uitley, D Knepper, T.Lindsay, B.Terrell, J.Harris, J Kuch. Photo by T. Berkey.*

remainder of the field, including the area around the house foundations, was then surveyed for evidence of outbuildings. The baseline was used to map the location of the visible foundations of the White House and of a springhouse to the south that appears in photographs of the area taken during the Civil War. Finally, a scale drawing of the house foundations was completed.



*Springhouse with the Pamunkey River in the background. Photo by S. Anthony.*

In the end, the survey was hampered by apparently random heat signatures across the field that created a sort of visual noise. According to Mr. Harris, the field had been bulldozed several years ago so that the entire surface of the field had been disturbed. Many anthills and mole disturbances were noted in the loosened earth, as well. All of this activity produced background disturbances that may have masked any vestiges of archaeological features.

Nevertheless, the survey was considered a useful exercise. Two features possibly related to outbuildings were located and mapped, and the White House foundations, their location within the field, and their relationship to the springhouse were mapped.

While extensive evidence of buried archaeological features was not collected, the team was able to assess the thermal imaging equipment in terms of its utility in archaeological surveying within disturbed field contexts.†



*J Kuch, D Knepper, and B.Uitley mapping the White House foundations. Photo by T. Berkey.*