

CLAY IS EVERYTHING: ARCHAEOLOGICAL ANALYSES OF COLONIAL PERIOD INLAND SWAMP RICE EMBANKMENTS

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Rice became the market export crop in the early eighteenth century that made South Carolina become an economic and agricultural powerhouse after many exotic tropical cultivars failed (Carney and Porcher 1993, Carney 1996, 2001, Littlefield 1981, Fields-Black 2008). In the late 1990s, scholars had laid out a line of evidence that reveals the roles enslaved West Africans played in the Carolina Lowcountry in regards to rice: the methods of planting, the technology needed to make it grow in flooded conditions and the methods required to prepare it for market (Carney 2001). Once the African element was realized, studies of Carolina's rice culture leaned more towards unlocking the ethnic components of rice cultivation; or, put more bluntly, who was responsible for what components of rice technology and agriculture (Alpern 2013).

Fueled by cues from major scholars (Carney 1996, Ferguson 1992, Joyner 1984, Littlefield 1981, Wood 1974), I set out to employ historical archaeology on a, at the time, presumed inland swamp rice field embankment that I believed was used for water control (Agha 1999, 2001). This embankment sits along the line separating higher dry ground from lowland hardwood swamp near Willtown Bluff, South Carolina, located on the South Edisto River. My excavations in this embankment yielded intact soils that revealed the processes involved in its construction. My 7x3 foot cross sections also recovered datable ceramics and artifacts that allowed me to interpret who the original embankment and rice field builder was (John Smelie, years of tenure: 1719-1727), and these artifacts also helped me identify a later repair episode to the bank sometime in the 1750s or early 1760s (James Stobo, years of tenure: 1740-1767) (Agha 1999, 2001, Agha and Philips 2009).

The sequence for the construction steps for this embankment are not simple ditch digging and piling of earth in a line haphazardly, as it would appear from simple outside observation. The soil profile instead shows a complex configuration of soil types and textures that allowed this earthwork to remain intact and unharmed by nature's reclamation of the old plantation lands since roughly 1800. First, the enslaved West Africans, probably already familiar in some ways with rice cultivation, approached this virgin piece of landscape and started digging two ditches parallel to each other with a 10 foot space between. The humus was piled on top of the original ground surface in between the ditches. When the enslaved started to dig into the subsoil, here a silty sand followed by a clayey sand, they piled that up along the man-made ridge next. Figure 1 displays the cross section profile and photo, showing these events. The artifacts that show the repair episode lie between the subsoil core and the topmost darker fill. This particular embankment is roughly 2,000 feet long and is in a perfect line with no angle changes or turns.

This embankment was needed to drain an adjacent work area to the north, and its ditches also served as transport for water to drain from the uplands down towards the river swamp where I identified a fresh water reservoir for formal inland rice fields. Ten years after conducting these first excavations I had the opportunity to dig a cross section in a bank within identified inland rice fields. This bank lies at the headwaters of the Bluehouse Swamp

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near Ladson, South Carolina, and belonged to a plantation that likely started rice agriculture before 1740 (Agha and others 2010). This bank has a parallel twin, and together these banks support a major ditch or minor canal. Water has flowed between these berms since the late eighteenth century. While similar to the Willtown example – water transport – the methods of construction are very different.

The enslaved first excavated a wide swath of humus that included the space for the ditch and both embankments. Once they reached subsoil clay, they then excavated the ditch deeper (refer to bottom of Fig. 1). The clay quarried out of the ditch was then piled carefully on

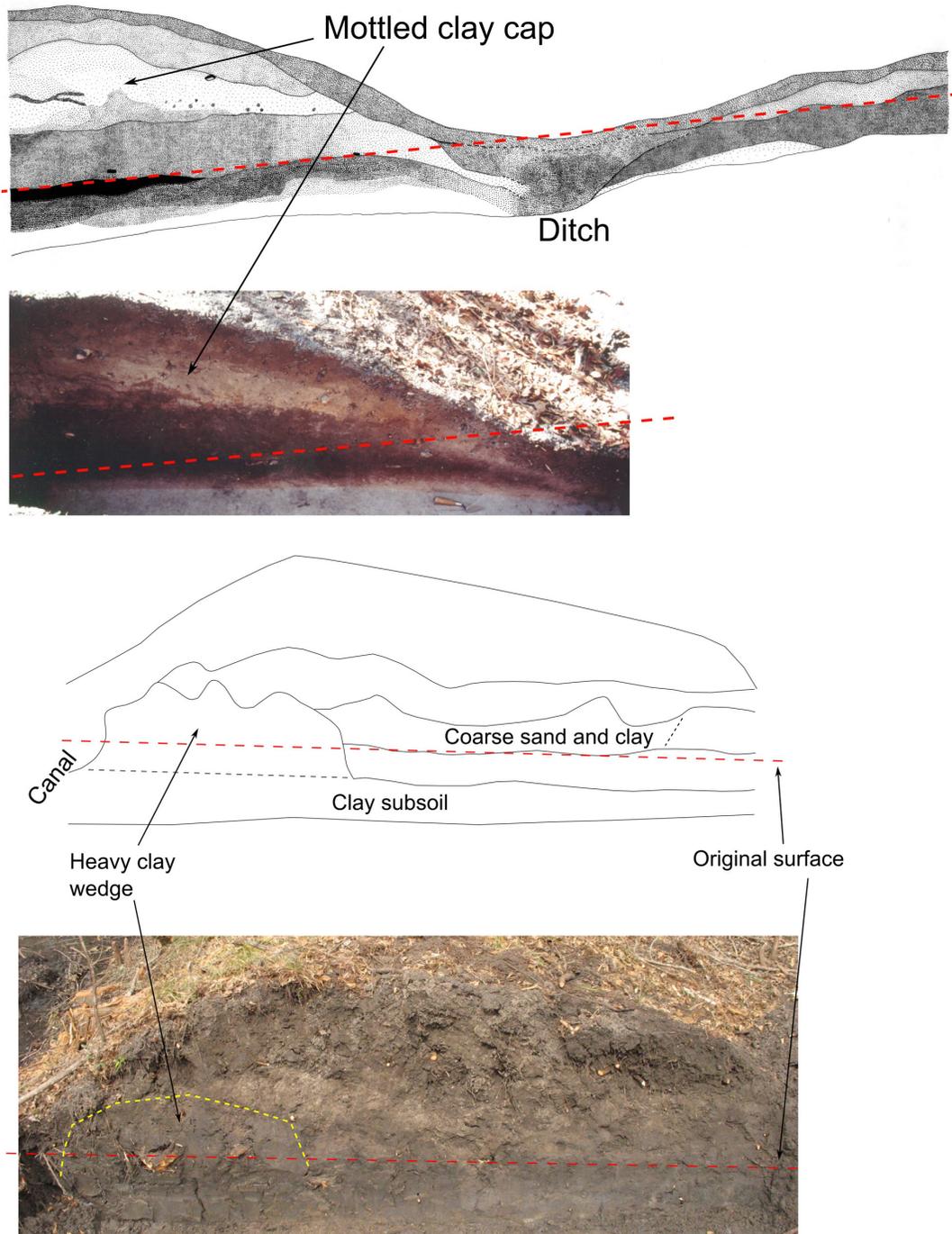


Figure 1—Profile drawing and photo of embankment excavation at Willtown (top), profile drawing and photo of embankment at Bluehouse Swamp (bottom).

either side of the cut, so that two linear mounds or “walls” were constructed on either side of the ditch. Then, coarse sand from a foreign location was piled up next to the clay ridge opposite the ditch. The enslaved Africans then mixed large lumps of clay the size of softballs into the piled sand. Overlying this clay ridge and coarse sand is a homogenous silty loam and clay mixture, followed by a homogenous clayey loam to cap the bank and create the surface. The coarse sand does not occur naturally in either the swamp or terrestrial landscape; its origination, function and purpose are unknown. It may have facilitated stability or drainage within the bank. Besides the presence of this sand, the use of clay here is a revelation.

West Africans have constructed buildings out of clay and earth for centuries. They have made pottery for almost 8,000 years (Clark 1970). As slaves, they had an ancestral knowledge of clay that far surpassed the personal experience of their British owners. The enslaved married the clay fill to the intact surface of the clay subsoil so perfectly I was unable to discern a line separating the two. In essence, these banks create a “clay pipe” for major water transport, and exhibit a foresight not seen in any of the seven embankments I have excavated in both swamp and upland settings. Clay cores have been identified in several upland examples, but the use of clay in this fashion shows a technology that has not been identified in the Carolina Lowcountry before. The two embankments I present here are similar in function but different in scope. Rice field construction was not simple “ditch-digging” by mindless workers beaten by the Middle Passage and their planter-owners. It was instead a hydrological engineering marvel concocted through cultural interaction and expertise. Future studies of banks throughout the Lowcountry could reveal correlates between England’s drained fens and West Africa’s mangrove rice fields. Regardless of their roots, inland rice embankments are the largest surviving architecture made by not only African hands, but possibly of African minds.

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