Stallings Island Revisited: New Evidence for Occupational History, Community Pattern, and Subsistence Technology Author(s): Kenneth E. Sassaman, Meggan E. Blessing and Asa R. Randall Source: American Antiquity, Vol. 71, No. 3 (Jul., 2006), pp. 539-565 Published by: Society for American Archaeology Stable URL: http://www.jstor.org/stable/40035364 Accessed: 17-04-2017 18:56 UTC

REFERENCES

Linked references are available on JSTOR for this article: http://www.jstor.org/stable/40035364?seq=1&cid=pdf-reference#references_tab_contents You may need to log in to JSTOR to access the linked references.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at http://about.jstor.org/terms



Society for American Archaeology is collaborating with JSTOR to digitize, preserve and extend access to American Antiquity

STALLINGS ISLAND REVISITED: NEW EVIDENCE FOR OCCUPATIONAL HISTORY, COMMUNITY PATTERN, AND SUBSISTENCE TECHNOLOGY

Kenneth E. Sassaman, Meggan E. Blessing, Asa R. Randall

For nearly 150 years Stallings Island, Georgia has figured prominently in the conceptualization of Late Archaic culture in the American Southeast, most notably in its namesake pottery series, the oldest in North America, and more recently, in models of economic change among hunter-gatherer societies broadly classified as the Shell Mound Archaic. Recent fieldwork resulting in new radiocarbon assays from secure contexts pushes back the onset of intensive shellfish gathering at Stallings Island several centuries; enables recognition of a hiatus in occupation that coincides with the regional advent of pottery making; and places abandonment at ca. 3500 B.P. Analysis of collections and unpublished field records from a 1929 Peabody expedition suggests that the final phase of occupation involved the construction of a circular village and plaza complex with household storage and a formalized cemetery, as well as technological innovations to meet the demands of increased settlement permanence. Although there are too few data to assess the degree to which more permanent settlement led to population-resource imbalance, several lines of evidence suggest that economic changes were stimulated by ritual intensification.

Por cerca de 150 años la isla Stallings de Georgia se destaca de manera prominente por ser la base conceptual de la cultura del Arcaico Tardío en el sureste de Estados Unidos, y que da nombre de la serie cerámica más antigua de Norte América. También es la base de la definición de los modelos de cambio económicos de sociedades de cazadores recolectores que son clasificadas como el Arcaico de Concheros. En reciente trabajo de campo se han obtenido nuevas fechas de radiocarbono de contextos seguros que ubican los comienzos de la recolección intensiva de moluscos en la isla Stallings varios siglos atrás; permitiendo el conocimiento de un tiempo de ocupación que coincide con el surgimiento de la manufactura de la cerámica, y propone su abandono alrededor del 3500 A. P. Análisis de colecciones e informes de campo sin publicar de la expedición del Peabody en 1929 sugieren que la fase final de ocupación involucra la construcción de aldeas circulares y unos complejos de plaza con sitios de almacenamientos y cementerios formalizados. Así también ocurren innovaciones tecnológicas relacionadas a las demandas de ocupación del asentamiento. Cierto es que hay pocos datos para evaluar el grado de ocupación permanente del asentamiento y como dio paso a un cambio en la relación de población y recursos; varias líneas de evidencia sugieren que los cambios económicos fueron estimulados por la intensificación ritual.

Landmark in the middle Savannah River, 13 km northwest of Augusta, Georgia (Figure 1), whose investigation in the early twentieth century laid the foundation for contemporary knowledge of Late Archaic prehistory in the South Atlantic Slope. Brought to the attention of the archaeological community by C. C. Jones in 1861, Stallings Island was the subject of sporadic investigations by William Claffin from 1908–1925, and large-scale excavations by the Cosgroves in 1929 (Claffin 1931). Subsequent, limited testing by Fairbanks (1942), Greene (Bullen and Greene 1970), and Crusoe and DePratter (1976) enhanced knowledge of stratigraphy and artifact typology, but did little to clarify the internal configuration of this large, complex shell-bearing site. Stallings Island has since been the target of relic seekers, and virtually all major collectors in the area have sizeable assemblages of artifacts from illicit digging at the site. Some protection is now afforded by the Archaeological Conservancy, which acquired Stallings Island from a private owner in 1998.

Stallings Island's role in the construction of Late Archaic prehistory is substantial. It is the namesake for Stallings fiber-tempered pottery (Griffin 1943),

Kenneth E. Sassaman, Meggan E. Blessing, and Asa R. Randall
Department of Anthropology, Box 117305, University of Florida, Gainesville, FL 32611 (sassaman@anthro.ufl.edu)

American Antiquity, 71(3), 2006, pp. 539–565 Copyright© 2006 by the Society for American Archaeology

539



Figure 1. Map of Stallings Island (9CB1) with insets showing locations of other Stallings Culture sites in the immediate area and the greater distribution of shell-bearing sites of Stallings age.

the oldest pottery series in North America. It is also the inspiration for the Savannah River Stemmed point (Coe 1964:45), the signature biface type of the broadpoint horizon in the Southeast. More generally, Stallings Island has long been regarded as a context for economic intensification among the broader phenomenon known as the Shell Mound Archaic, a cultural milieu presumed to embody increasingly sedentary settlement, incipient social ranking, and regional integration. However, modern analysts have shown that conceptions of the Shell Mound Archaic have been shaped more by presumption than by fact (e.g., Crothers 1999; Hensley 1994; Milner and Jefferies 1998). The same can be said for Stallings Island, for despite repeated professional investigations, the site is poorly understood, although its role in Late Archaic prehistory is perhaps greater than ever imagined.

This report summarizes the results of recent field investigations, radiometric dating, and collections research to redefine the occupational history, community pattern, and regional significance of Stallings Island. The salient conclusions supported by recent work can be summarized as follows. Stallings Island contains two major Late Archaic components, one dating to the interval ca. 4600-4000, the other ca. 3800-3400 radiocarbon years B.P. These distinct components were conflated in earlier studies, leading to the erroneous conclusion that Stallings Island was occupied continuously by a single people. As long known, early occupations at Stallings Island predated the local inception of pottery, but, contrary to existing knowledge, they also involved intensive harvesting of freshwater mussels. The later component marks the apogee of Stallings culture (hereafter referred to as Classic Stallings culture), which is signaled by elaborate, punctated fiber-tempered pottery. The hiatus of occupation between these two components coincides with the introduction of plain fibertempered pottery in the local area. Site reoccupation during Classic Stallings times involved the construction of a circular village with household-based storage, and a plaza cemetery. Abandonment of the REPORTS



Figure 2. Topographic map of the area of archaeological deposits at Stallings Island, showing pylons, locations of excavation units of most prior expeditions, and 1999 units of the University of Florida expedition.

greater middle Savannah area at ca. 3500 B.P. followed a period of intensification that arguably was stimulated by ritual activities exclusive to Stallings Island. Evidence to support these conclusions is summarized in this paper following a brief review of earlier investigations.

Background and Previous Investigations

Stallings Island is located in the Fall Zone of the Savannah River, some 200 km from the Atlantic Coast at an elevation of 70 m amsl. The Fall Zone is a transitional province between hard-rock geology of the Piedmont and unconsolidated sands of the Coastal Plain. Before the middle Savannah River was dammed in the nineteenth century, the channel surrounding Stallings Island was strewn with boulders, shoals, and small, elongated islands. A 1889 navigation map shows rapids and innumerable islets in the river and only a single navigable channel passing just to the north of what was then called "Indian Island." The shoals and islets that nearly connected opposite banks in this stretch of the Fall Zone are now inundated by impounded water and meters of silt. Only exceptionally high islands like Stallings Island survived as subaerial features after the Augusta Canal was expanded in the late nineteenth century. Banks on either side of the channel ascend sharply in bluffs 20–25 m high that are dissected by small runoff gullies and occasional tributary channels. The largest tributary in the middle Savannah, Stevens Creek, enters the Savannah River only 500 m upstream from Stallings Island.

Our 1999 expedition to Stallings Island included the first detailed topographic mapping of the surface, and we introduce the resultant map in Figure 2 to facilitate discussion of previous work and the current condition of the site. The map encompasses what essentially is the so-called "mound" at Stallings Island, a clay erosional remnant approximately 120 m long, 80 m wide, and as much as 5 m above the alluvial apron that comprises the base of the island. Anthropogenic deposits with varying amounts of freshwater shell accumulated gradually over the top and especially the sides of the clay dome. Stallings Island is thus not a "mound" in the usual sense of the term, although stratigraphy observed by Jones (1861) at the north end of the landform may indicate the presence of intentionally mounded deposits over human interments, as we discuss further below.

Superimposed over our topographic map in Figure 2 are the locations of major excavations conducted since the nineteenth century. Locations of the earliest digs were taken from Claffin's (1931) account of the 1929 Peabody expedition; the locations of later units dug by Greene were georeferenced to one of three electrical pylons in a report coauthored with Bullen (Bullen and Greene 1970). The locations of test units dug by Fairbanks (1942) follow the rough estimates of these latter investigators. The locations of units dug and reported by Crusoe and DePratter (1976) are approximated from descriptions provided by DePratter in 1991 (Weinand and Reitz 1992).

Previous Investigations

Jones's (1861, 1873) accounts of Stallings Island in the 1850s provide a rare glimpse of the site in its unmolested state and in a river setting not yet affected by damming. Jones (1861:14) described Stallings Island as an "Indian Monument." He regarded the shell deposits on the promontory of the island as a deliberate construction, a mound erected incrementally to entomb the dead. Jones exposed numerous human skeletons in several excavations he made at the north end of the "mound" (Figure 2). He observed as much as 3.7 m of stratified shell in this portion of the site, arrayed in layers 20-25 cm thick, interspersed with layers of sand. Despite the abundance of pottery sherds, stone axes, and food remains throughout the deposit, Jones believed the site was utilized for expressly mortuary purposes, calling it a "huge necropolis" (Jones 1861:17). He noted too that no other site in the locality equaled Stallings Island in the size of its mounded shell or number of burials. This "island of the dead," as Jones put it, was a general cemetery for the surrounding "tribes," who, through "common consent," "consecrated [it] exclusively to the purposes of burial" (Jones 1861:18-19).

Decades later, Jones's flowery prose garnered

the attention of the son of a prominent Massachusetts politician. William H. Claffin, Jr. first excavated at Stallings Island in the winter of 1908 (Figure 2). With the help of local laborers, Claffin (1931:3) opened a 7-x-10-ft trench (C1; Figure 2) and observed a layer of shell overlying "black loam intermixed with shells, food bones, potsherds and other evidence of occupation." Clay substrate was encountered a mere 1.2 m below the surface. This same general sequence was observed in two additional units excavated in 1921 (C2, C3; Figure 2). A fourth unit (C4), dug in 1925, revealed the only appreciable deviation from his earlier observations. Here, in the west-central portion of the site, Claffin observed nearly 3 m of stratified shell midden, arrayed in five distinct layers. He noted that the clay base dipped down sharply to the west in this unit, and suggested that this was "a natural pocket ... that offered a convenient place for the dumping of refuse" (Claflin 1931:7).

Although Claflin uncovered burials in each of the four units he dug, he did not concur with Jones about the mortuary purpose of the "mound." Rather, he believed the deposits resulted from the long-term occupation of "one tribe, who for convenience [he] called Stalling's Island people" (Claflin 1931:7).¹ To Claflin, the so-called "mound" was nothing more than a convenient place to live.

With Claflin's work, focus now shifted to Stallings Island as a locus of permanent habitation, with the burials and "mounded" shell merely incidental to domestic living. Large-scale investigations of Stallings Island headed by Harriet and Burton Cosgrove in 1929 were designed to reconstruct the details of this intensive occupation. The Cosgroves were dispatched to Stallings Island by the Peabody Museum of Harvard to direct 14–16 laborers in excavations amounting to nearly 1400 m². Claflin compiled the notes and analyzed the collection made by the Cosgroves and, combining it with his own observations from earlier work, issued the definitive report on Stallings Island in 1931.

The major unit excavated under the direction of the Cosgroves was the 60-x-210-ft (18 x 64 m) block labeled in Figure 2 as "Cosgroves' Block." It is here that we get the first glimpse of the diverse assemblage of pit features concentrated in the center of the site, many penetrating deep into basal clay. One-hundred-and-ten pits and 24 so-called "fireplaces" were mapped and excavated in this unit. Clafin (1931:8) claims to have encountered, but not mapped, similar features in his earlier trenching.

Direct evidence for habitation structures eluded the Cosgroves (Claffin 1931:12), a frustration that is palpable in the writing of Claffin who, rightfully so, expected to find postholes conspicuous in the underlying clay. Still, the sheer volume of food refuse, combined with the assemblage of pits and hearths, led Claffin to conclude that Stallings Island was a "village site," one of several in the area known to him (Claffin 1931:40–42). The large pits themselves were persuasive evidence for they not only signified storage to Claffin (1931:9), but most were filled with the refuse of daily living, and some later ones intercepted earlier ones, suggesting redundant use of particular loci.

The bulk of the 1931 report is devoted to a description of artifacts collected by Claflin and the Cosgroves. In this account we find the rudiments of an archaeological definition of the "Stalling's Island people." The vast majority of some 3,500 sherds collected were "unlike any types of Southeastern ware hitherto described" (Claffin 1931:13). Claffin surmised that these sherds came mostly from shallow bowls with incurvate rims, and he described the paste as gritty, while also noting that "grass" was used as temper. Linear punctation was noted as the diagnostic form of exterior surface treatment, but also mentioned were "scratched" (incised) and plain treatments. Griffin (1943) would later canonize the dominant type as "Stallings Punctate," establishing a typology whose refinements over the decades would encompass the greater Savannah River region, as well as coastal South Carolina and Georgia (Sassaman 1993a). The definitive trait of Classic Stallings culture in its modern incarnation is fiber-tempered pottery with linear designs referred to as "drag-and-jab" punctate.

Other traits of the "Stalling's people," as defined by Claffin (1931), include a variety of bone and antler artifacts, bannerstones, polished grooved axes, shell beads, mortars, pitted stones, "net sinkers," and chipped stone implements. The latter two classes were especially abundant. Recovered were over 2,500 specimens of a "flat perforated" variety of "netsinker" (Claffin 1931:32) made from soapstone (known today as cooking stones [Sassaman 1993a:115–119]), and over 5,000 flaked stone tools, mostly stemmed bifaces. Coe (1964) would later draw on Claflin's account in defining the Savannah River Stemmed type, the hallmark for the Late Archaic Broadpoint horizon in the Southeast U.S.

Claflin's conflation of all classes of artifacts, features, and burials from Stallings Island into a singular cultural construct would have a dominant effect on the interpretation of Late Archaic archaeology for decades to follow. In keeping with the standards for culture-historical reconstruction, both Claffin and the Cosgroves sought stratigraphic contexts for documenting culture change. Like Jones, they commented on the stratified nature of the midden atop the clay dome, but apparently did not observe sufficiently consistent strata to warrant controlled stratigraphic excavation. The closest they came to recognizing meaningful layering was in their excavation of Trench 1, along the northeastern margin of the "mound." In this 40-ft-long (12.1-m-long) trench they observed "practically a solid mass of shells, containing much refuse, extend[ing] to a depth of 7 feet, 9 inches [2.4 m], where the first shells rested on undisturbed clay mixed with river silt" (Claflin 1931:5). Claflin (1931:5) surmised that this margin of the site was eroded by river floods and suggested that the thick deposit of shell and refuse accumulated in an old erosional channel. In a later section of the report, Claffin (1931:13) notes that "more sherds were found per square foot in Trench 1 than in any other section of the mound." However, the frequency of sherds diminished with depth, until "none appeared in the final shell layer" (Claffin 1931:13). Nonetheless, Claflin remained unconvinced of the existence of a prepottery component. "Insufficient area was uncovered at this depth to allow the presumption that the people who left the first shell deposit did not possess pottery. In all probability they did, but to a lesser degree than did later generations" (Claffin 1931:13–14). He went on to note that pottery throughout the rest of the deposit did not vary with depth, reinforcing in his mind the homogeneous nature of the deposit.

Stimulated by the prospects of a prepottery component, Fairbanks (1942) conducted additional excavations at Stallings Island in 1940 using deliberate stratigraphic techniques. He opened four "exploratory trenches" and three blocks of unspecified dimensions, two excavated in 6-inch (.15 m) arbitrary levels, the third in one-foot (.3 m) increments. The locations of these units are uncertain, although later Bullen and Greene (1970:9) indicated they were positioned on opposite sides of the eastern-most pylon, as shown in Figure 2.

Pottery in Fairbanks's units was concentrated in the upper foot (.3 m) of shell midden, and did not exceed 2 feet (.6 m) below the surface. Because stone and bone artifacts continued another 6 feet (1.8 m) to the basal clay, Fairbanks (1942:227) considered it "certain that pottery was introduced late in the occupation." He went on to equate this sequence with stratigraphy documented by Webb and colleagues in reservoir excavations of the middle Tennessee River of northern Alabama (e.g., Webb 1939; Webb and DeJarnette 1942), asserting that the late introduction of pottery "must be considered as the typical development of this early group in the Southeast" (Fairbanks 1942:227).

With clear recognition of a prepottery horizon at Stallings Island and tacit acceptance of cultural continuity with a later pottery component, Fairbanks compiled a trait list for Stallings Island in which the material assemblages of both components were combined. In typically normative fashion for the times, and lacking radiocarbon dates, Fairbanks drew broad comparisons with shellmidden sites in Kentucky and New York, proposing a "Shell-Mound aspect," the rudiments of what others have called the Shell Mound Archaic. The stratigraphic observations Fairbanks made at Stallings Island and elsewhere reinforced the idea that pottery developed locally, through diffusion of ideas, among extant hunter-gatherers populations. Fairbanks' conflation of prepottery and pottery components would confound later researchers seeking clues about culture change and discontinuity in the region (e.g., Crusoe and DePratter 1976:12).

In 1961 amateur archaeologist H. Bruce Greene excavated eight test pits under the central pylon at Stallings Island and the results of his efforts were published a decade later with Ripley Bullen (Bullen and Greene 1970).² In units ranging from as small as 5×5 ft (1.5×1.5 m) to as large as 12×12 ft (3.7×3.7 m), Greene encountered "alternating layers of dirt, dirt and shell, shell, and burnt shell" up to 1.8 m thick (Bullen and Greene 1970:10). All units appear to have been excavated in 6-inch (.15-m) arbitrary levels. According to Bullen and Greene (1970:10), pottery was restricted to an upper stra-

tum varying from 28 to 42 inches (.7 to 1.1 m) thick. They also note that decorated pottery gave way to plain pottery in the lowest levels, and that underlying all was a prepottery horizon.

Greene's efforts resulted in the first radiometric dates for Stallings Island (Williams 1968). Two samples of charred nutshell and wood charcoal collected from the base of the prepottery horizon returned uncalibrated and uncorrected assays of 4450 ± 150 and 4700 ± 150 B.P. A third sample of charcoal came from a depth of 30 inches (.76 m) below surface and returned an assay of 3730 ± 150 B.P. Insofar as this latter sample "came from the base of the pottery producing zone," Bullen and Greene (1970:12) suggested that it marked the local origin of pottery, "perhaps the plain period noted during excavation."³

The apparent evidence for cultural continuity between prepottery and pottery components at Stallings Island was not universally accepted. In the early 1970s, University of Georgia graduate student Donald Crusoe led an expedition to Stallings Island to compare its components to those from coastal sites. Digging south of Greene's units, Crusoe observed a profile with an upper 1.3-ft (.4-m) stratum of shell midden with Stallings pottery, underlain by a "clay midden with few shells" and lacking pottery (Crusoe and DePratter 1976:5). This is essentially the two-part sequence observed by all previous excavators, but to Crusoe the differences between the two were more striking than previously recognized. Besides the lack of pottery, the basal component contained more soapstone cooking stones (neé "netsinkers") than the upper component, and the biface assemblages between the two, as Bullen and Greene (1970) noted, were markedly distinct. Drawing on comparisons from other sites in the region, Crusoe suggested further that the pottery component lacked the bannerstones, grooved axes, and burials of the prepottery component. These changes in material culture, he suggested (Crusoe and DePratter 1976:12), mirrored substantial subsistence change.

It is unclear whether Crusoe envisioned any thread of cultural continuity between the components, but he was given to historical explanations for culture change, notably the consequences of population movements (i.e., migrations), local, as well as regional and even intercontinental (see Crusoe 1972). Crusoe was not alone in his suppositions on migration and "site unit intrusions," but his ideas were counter to the growing proclivity in Americanist archaeology for explaining archaeostratigraphic unconformities as the consequence of in situ, "evolutionary" change.

In sum, nearly 150 years of intermittent investigations at Stallings Island have resulted in a confusing mix of observations and inferences. Lacking have been sufficient chronological controls over the site's complex stratigraphy and feature contexts, as well as comparative data from other sites in the region. Combined with the results of recent work elsewhere in the middle Savannah, new field, collections, and archival research on Stallings Island clarify many of the contradictory issues of earlier work while putting into modern perspective the uniqueness attributed to the site so long ago by Jones.

Recent Investigations

Over the past five years we have sought opportunities to cull additional information about Stallings Island from limited, problem-oriented fieldwork, as well as the study of archives and extant collections. Our recent field effort resulted in the first topographic map of the site, secure feature contexts for myriad fine-grained analyses, and a radiocarbon chronology to establish the onset, duration, and termination of the site's Late Archaic components.

1999 Testing

With funding from the National Geographic Society and permission of the Archaeological Conservancy, a team from the University of Florida and colleagues spent three weeks in May-June 1999 clearing, mapping, and testing Stallings Island. The primary goal was to reconstruct the site's occupational history by locating and sampling sound contexts for radiometric dating. Because the site was so badly pocked with the holes of previous investigators and looters alike, the strategy was simply to face the profiles of existing exposures to locate intact stratigraphy. The chief target in this effort was the (grid) west wall of the Cosgroves' 210-ft (64m) long Trench 2 (C-T2; Figure 2). The scar of this trench was visible on the surface of the site, although its orientation varied wildly, making it difficult to align test units to maximize profile exposures. We thus started with a slot-trenching technique that took advantage of especially sharp relief in the presumed location of Trench 2.

Evidence of the Cosgroves' Trench 2 was observed in two of our units (TU1 and TU6) in the southwest half of the block, where the 1929 team had penetrated into basal clay some 50 cm, leaving a backfilled linear feature roughly 1.8 m wide (Figure 3a). Sound evidence of Trench 2 was not observed in our test units to the northeast (TU2 and TU4), apparently because the 1929 excavators did not dig into the basal clay in this portion of the trench. Nor did we observe undisturbed midden in the projected location of the west profile of Trench 2. However, observed in the basal clay of each of our units were a variety of pit features, several of which exhibited sharp contact with the surrounding clay and contained dark fill with distinct clay mottles (Figure 3a, b). These apparently were among the scores of pits excavated and then backfilled by the Cosgroves, which, together with the margins of backfilled Trench 2, offered points of reference for aligning their excavation block to our mapping data.

In addition to locating backfilled pit features of the 1929 dig, we encountered stains in the basal clay of our units with diffuse edges and seemingly undisturbed fill (Figure 3a, b). Each of these proved to be intact pit features that were either overlooked or dismissed by the Cosgroves. In some cases these features appear to have been the basal components of pits that were mapped but not completely excavated, but in most cases they were previously unrecorded pits. Additional intact features were mapped and excavated by us in test units adjacent to the Cosgroves' Block, as well as a few scattered units across the site area to the northwest. All told, we mapped and excavated 54 pit features in our 51 m² of test units. Three of the intact features in and adjacent to the Cosgroves' Block are shown in Figure 3c-e. Like those found by the Cosgroves, pits we encountered penetrated as much as 120 cm into the basal clay. They typically contained an organicrich clay loam with shell, charcoal, abundant vertebrate bone, and numerous diagnostic artifacts. Given the rich organic fill and associated artifacts of most of these features, they more than fulfilled our goal of developing an internal chronology for Stallings Island.

As feature excavation in and around the Cos-



Figure 3. Photographs of clay substrate and features in test units, showing (a) Cosgroves' Trench 2 in TU6; (b) backfilled and unexcavated pit features in TU2; (c) Feature 3, TU2; (d) Feature 10, TU2; and (e) Feature 17, LP3.

groves' Block proceeded, we took advantage of recent looters' exposures to face profiles in a few additional locations across the site. To facilitate mapping of the pocked surface, each of 195 looters' pits we observed was flagged and numbered. With abbreviated prefixes of "LP," the five looters' pits we faced are shown in Figure 2 as 1-x-2-m or 2-x-2-m units. The orientation of these units was determined by the geometry of the looters' pits and so they deviate randomly from grid axes. Our efforts in each of these five looters' pits returned important information and most contained intact pit features, but a detailed discussion of these results is beyond the scope of this paper. For purposes of chronology, only the results of testing in LP81 warrant further discussion.

LP 81. Down the slope of the northeast side of the "mound" was an especially large (ca. 5 m in diameter) and deep looter's pit that exposed shell deposits 3 m deep (Figure 2). This pit apparently intercepted backfill from Cosgroves' Trench 2 and continued into undisturbed midden on either side of the trench. Located only 5 m from Trench 1, this is proximate to the location where the Cosgroves observed some 2.4 m of dense shell deposits. Claflin (1931:5) insinuated that the shell in Trench 1 was deposited or redeposited in a flood chute that paralleled the northeastern margin of the "mound." He also noted that "more sherds were found per square foot in Trench 1 than in any other section of the mound" (Claflin 1931:13). In our facing of LP81, we therefore expected to find flood-lain, redeposited shell midden rich in pottery. Instead, we found only .7 to 1.3 m of redeposited fill capping 2+ m of intact, stratified shell midden dating to the prepottery era.

The grid-west profile of LP 81 is illustrated in Figure 4. A clear stratigraphic break separates the upper unit of this profile from the underlying strata. Alternating layers of sandy clay and crushed shell in silty loam are contorted and discontinuous in the upper unit. At about 70 cm below the surface at the south corner, the upper unit gives way to alternating layers of crushed and whole shell with occasional clay stringers and charcoal lenses, all with a consistent dip and strike that follows the surface contours of the side slope. Apparently, the lower 2.3 m of stratified midden was unaffected by the agents (presumably floods) that removed an untold amount of near-surface midden and left a scoured surface at 70 cm, upon which midden eroded from upstream was redeposited. Evidence that strata



Figure 4. West profile drawing of LP81, showing stratigraphic unconformity between upper and lower strata, outline of pedestal, and radiocarbon assays on samples from intact strata.

below 70 cm remained undisturbed was seen not only in the integrity of the profile, but also in the content of the layers. Throughout the hand excavation of LP81, small fragments of bone, charcoal, and stone were among much larger and heavier items, including chunks of fire-cracked rock and soapstone cooking stones. Bivalve shell within strata was likewise poorly sorted. Once we decided that these deeper strata were indeed intact, a 1-x-1 m column was left standing in the northwest corner of the unit and then removed in natural strata for ¹/₈-inch waterscreening and flotation sampling. Rich in shell, bone, charcoal, fire-cracked rock, and soapstone cooking stones, the column provided good contexts for radiometric dating, along with a variety of subsistence and paleoecological data. Remarkably, not a single sherd of pottery was found in the column, nor were sherds recovered from any of the other levels below the scoured surface. The only sherds observed in the facing of LP81 came from the upper levels of the redeposited matrix.

Seven radiocarbon assays confirm that the intact midden of LP81 predates the local inception of pottery use by several centuries. An additional 15 assays on samples from pit features from the promontory enable a reasonably sound reconstruction of the occupational sequence for Stallings Island through the mid-fourth millennium B.P.

Radiocarbon Chronology

Data on 22 radiocarbon assays obtained on samples collected in 1999 are provided in Table 1. Thirteen of the assays were obtained from freshwater shell,⁴ one from unidentified charred material, and the remainder from wood charcoal and/or charred hickory nutshell. With one exception,⁵ all assays fall in the accepted range of the Late Archaic period and all but two other assays cluster into two discrete groups: 13 ranging ca. 4600–4000 B.P. or 5300–4500 cal B.P., and six ranging ca. 3800–3400 B.P. or 4200–3600 cal B.P. The contexts and associations of each of these clusters are discussed in turn below.

Assays Ranging 4600–4000 B.P. Twelve samples from secure contexts returned assays spanning a 600-radiocarbon-year period. One additional estimate, taken from charcoal from the base of LP81, adds at least two more radiocarbon centuries to the earliest date. Overall, the age estimates reflect relatively continuous deposition of the materials samples, and they are evenly divided between pit features and the strata of LP81.

The oldest two assays were obtained from shell and charcoal from Feature 42, a pit located in LP2 (Figure 2). At two-sigma ranges of variation, these assays overlap at 4550-4450 B.P. Two other contexts produced estimates in this range: Feature 29 from LP1, and the basal stratum of LP81. An assay on shell from the very base of the LP81 column (Stratum VI) was nearly duplicated by a second sample from the overlying stratum (Stratum V) to establish the onset of shell-midden formation shortly after 4500 B.P. A second assay on charcoal from Stratum VI suggests that midden formation, with or without shell, may have begun a few centuries earlier. This, however, is the saprolitic clay of sterile substrate that is typically exposed in the slopes of landforms eroded by the river and its tributaries. As an ancient surface, then, this stratum was subject to any number of organic inputs before shell began to accumulate.

Four assays on shell taken from overlying strata of LP81 center on ca. 4200 B.P. and signify the rapid accumulation of 1.5 m of shell-rich midden. Discontinuous sandy-clay stringers impregnated with charcoal interrupt at least three, maybe four major shell strata, each about 30 cm thick. Firecracked rock, flaked stone, soapstone, and vertebrate fauna were found throughout these layers, but, as noted earlier, not a single piece of pottery was observed in this undisturbed context.

Complementing and extending the timing of shell accumulation in LP81 is a series of four pit features (24, 33, 34a, and 36) with assays ranging from ca. 4300 to 4000 B.P. All but one of these features lacked pottery. The exception, Feature 24, contained punctated sherds of Classic Stallings wares. It and one other feature (36) of nearly identical age were located in TU6, proximate to the concentration of Classic Stallings features in the Cosgroves' Block (see below). Given the weight of other chronometric data from this site and beyond, the exceptional incidence of this pottery type in such early contexts is most likely due to crosscontamination from adjacent components.

It bears emphasizing at this point that the recognition of a prepottery horizon at Stallings Island is nothing new, but its association with intensive shellfishing is unprecedented. The thickness and density of shell midden in LP81 eclipses any other

REPORTS

			Measured	¹³ C/ ¹² C	Conventional	2-Sigma
Context	Lab Number	Material	C ¹⁴ Age (BP)	Ratio (‰)	C14 Age (BP)	Cal. (BP)
F. 10 (TU2)	Beta-134458	charcoal	3510 ± 70	-25.0	3510 ± 70	3970-3620
F. 17III (LP2)	Beta-133184	charcoal	3580 ± 60	-27.7	3530 ± 60	3970-3650
F. 16 (LP3)	Beta-134459	charcoal	3550 ± 70	-25.4	3540 ± 70	3985-3645
F. 2 (TU2)	Beta-134456	charcoal	3680 ± 60	-25.4	3670 ± 60	4155-3845
F. 15a (TU4)	Beta-138659	shell	3430 ± 70	-10.0	3680 ± 70	4230-3840
F. 17III (LP3)	Beta-133185	shell	3490 ± 70	-9.3	3740 ± 70	4290-3895
F. 7/8 (LP1)	Beta-134457	shell	3650 ± 70	-9.2	3910 ± 70	4525-4145
F. 34a (LP1)	Beta-138660	shell	3780 ± 70	-9.3	4040 ± 70	4815-4745
						4720-4380
F. 36 (TU6)	Beta-134463	shell	3830 ± 70	-9.7	4080 ± 70	4830-4410
F. 24 (TU6)	Beta-134460	charcoal	4100 ± 60	-25.7	4090 ± 60	4825-4425
LP81-Ib	Beta-134464	shell	3860 ± 70	-7.8	4140 ± 70	4845-4435
F. 33 (LP1)	Beta-134462	shell	3940 ± 70	-8.7	4200 ± 70	4865-4530
LP81-5-8a	Beta-134466	shell	3940 ± 60	-8.5	4210 ± 60	4860-4555
LP81-III	Beta-138662	shell	3940 ± 50	-8.7	4210 ± 60	4860-4555
LP81-IV	Beta-138663	shell	4000 ± 70	-9.0	4260 ± 70	4970-4785
						4780-4595
LP81-VI	Beta-133189	shell	4100 ± 70	-8.8	4360 ± 70	5275-5175
						5070-4830
LP81-V	Beta-134465	shell	4100 ± 60	-8.5	4370 ± 70	5280-5165
						5130-5105
						5075-4830
F. 29 (LP1)	Beta-134461	charcoal	4400 ± 70	-25.4	4390 ± 70	5290-4835
F. 42 (LP2)	Beta-133186	charcoal	4450 ± 70	-26.3	4430 ± 60	5295-4855
F. 42 (LP2)	Beta-133187	shell	4340 ± 70	-9.5	4590 ± 70	5470-5045
LP81-VI	Beta-133188	charcoal	4840 ± 70	-25.7	4830 ± 70	5670-5455
						5380-5335
F. 7/8 (LP1)	Beta-138661	uid charred	18,050 ± 110	-29.0	17,980 ± 110	21,960-20,795

 Table 1. Data on Radiocarbon Assays from Features and Shell Column of Looter Pit 81 (LP81),

 Stallings Island (9CB1), Columbia County, Georgia.

context documented in 1999 and it nicely corroborates some of the descriptions of thick midden made by Jones and Claflin. Until now all such remains at Stallings Island were regarded as the refuse of occupants who made and used the hallmark pottery. The combination of LP81 and coeval pit features at Stallings Island pushes back the onset of intensive shellfishing in the middle Savannah by at least four centuries.

Assays Ranging 3800–3400 B.P. Six assays from five pit features fall squarely in the well-dated interval of Classic Stallings times. Each of the features was located in test units in or near the Cosgroves block. All of the features contained numerous examples of drag-and-jab fiber-tempered pottery, along with abundant food remains. One shallow pit, Feature 10, contained over 20,000 vertebrate remains greater than 1/8-inch, mostly fish (Figure 3d). A deeper pit, Feature 17, had a stratified fill with a distinct layer of bivalve shell overlain with charcoal and tens of thousands of charred hickory nutshell fragments (Figure 3e). These are among the scores of other pit features mapped and excavated by the Cosgroves but discussed in only cursory fashion in Claffin's report. Collectively, the Classic Stallings features reflect more intensive use of large and deep pits over the earlier occupation. They likewise corroborate the level of intensity Claffin attributed to occupations at the top of the so-called mound.

Occupational Hiatus ca. 4000–3800 B.P. With only 19 assays from secure contexts, sample error may explain the hiatus between early and late components at Stallings Island. However, this interval is hardly unknown to us, as it encompasses portions of two well-known archaeological phases: Mill Branch (4200–3800 B.P.; Elliott et al. 1994), and Early Stallings or Stallings II (4500–3800 B.P.; Sassaman 1993a; Stoltman 1972). The oldest components of the latter phase are found at sites downstream from Stallings Island in the Coastal Plain and on the coast. Components dating to the last few centuries of this phase are not uncommon at sites in the immediate vicinity of Stallings Island (Crook 1990, 1991; Sassaman and Anderson 1995; Smith 1974), signifying, it would seem, the movement of some Coastal Plain communities into the middle Savannah region after ca. 4200 B.P. (see below). The chief diagnostic trait of this phase is plain fibertempered pottery whose wide-mouthed, low profile forms were often fitted with flanged or thickened lips (Sassaman 1993a). A few such sherds were observed in our 1999 testing at Stallings Island, yet these pale in comparison to the vastly larger assemblage of Classic Stallings pottery, and no Early Stallings sherds were found in feature context. By all accounts, then, the roughly 200-year hiatus in occupation at Stallings Island is real and not imagined. Inspection of the sizable collection of sherds from the 1929 Peabody expedition corroborates this inference and lends further insight into the occupational history of the site.

Collections and Archival Research

The personal collection of William H. Claflin, Jr. was bequeathed to the Peabody Museum at Harvard and recently accessioned and made available for research (Hodges 2000). Among his collection is about half of the Cosgroves' assemblage from Stallings Island, along with materials and a catalog from earlier work at the site and others in the area. Together with the archived field notes and the remaining half of the Cosgroves' expedition, the Claffin collection is a large and reasonably wellprovenienced source of information on the middle Savannah in general and Stallings Island in particular. Unfortunately, intrasite provenience for Stallings Island artifacts is not as complete as we would hope. One can almost always determine whether any particular lot of artifacts came from Stallings Island, but few such lots are specific to particular units or squares of the Cosgroves' grid or within Claffin's earlier tests. Most often, lots of artifacts from Stallings Island are accessioned simply as "general diggings."

Offsetting the lack of intrasite provenience data are the detailed field notes of the Cosgroves. These records include a daily account of the activities of the crew, preliminary discussions on the formation of the "mound," the lack of evidence for houses, the types and distributions of storage pits, hearths, and burials, and summary descriptions of artifact classes. Most of this information was adapted by Claflin for publication in the 1931 report. Thirtyone pages of systematic observations on features were never published. Recorded for each hearth and pit the Cosgroves mapped and excavated are data on location within their grid, plan dimensions, basal depth below surface, depth into clay substrate, profile shape, contents, and use alteration (e.g., burning). A similar set of records exists for the 72 human burials exhumed by the Cosgroves' team. Some of the mortuary data were presented in the 1931 report, but the field notes provide considerably more detail on bodily position and orientation than the report, as well as unpublished details on age, sex, and dental health.

The senior author spent one week at the Peabody Museum in 1999 examining the archives and analyzing pottery from Stallings Island, and all three of us returned for two weeks in 2003 to analyze bifaces, polished stone tools, and worked bone and antler. A complete account of this effort is beyond the scope of this paper, but is pending in a comprehensive monograph on Stallings archaeology. Here we simply review a few of the more salient findings derived from the combined results of field, archival, and collections research.

Findings of Recent Field and Collections Research

Enabled by recent research on Stallings Island are new insights on the occupational history, community pattern, and subsistence technology of this complex site. In the sections below we summarize each of these subjects in turn and follow with some observations about their relevance to regional prehistory and problems of broader anthropological significance.

Occupational History

The Late Archaic occupation of Stallings Island was not likely continuous, but rather entailed two distinct components separated by a hiatus of two or more centuries. Understanding the historical relationships of these components requires an excursion into the regional archaeology of the greater Savannah River valley. Scores of radiocarbon assays from dozens of sites in the region have accumulated in the past few decades (Elliott et al. 1994; Ledbetter 1995; Sassaman 1993a, 1998a;



Figure 5. Model of Late Archaic culture history for the Savannah River Valley, with radiocarbon assays from Stalling Island (± 2 sigma).

Sassaman and Anderson 1995:44–51), and we have a reasonably sound basis for assigning particular components to broader cultural-historical constructs. One of the defining features of this regional sequence is the coexistence of groups whose material culture and lifestyles signal distinct historical lineages, notably the coastal-oriented Stallings culture, makers and users of the oldest pottery in the Southeast, and their Piedmont-oriented contemporaries who never adopted pottery (Anderson and Joseph 1988:159; Sassaman 1993a).

For heuristic purposes, a basin-wide culturehistorical sequence is illustrated in Figure 5 along with the reliable radiocarbon assays from Stallings Island. Although the horizontal axis of this model represents space and the vertical axis radiocarbon time, the relative positions of radiocarbon assays from Stallings Island are not meant to connote anything spatial. Other graphic devices, however, are essential for interpreting this sequence. The diagonal lines denote time-transgressive trends, in particular the time lag between pottery's inception on the coast (ca. 4500 B.P.) and its use in the upper Savannah (post-4000 B.P.). Double-ended arrows signal interaction among communities along this 250-km length of river, and the single-ended arrow reflects population movement into the middle Savannah area from locations down river at ca. 4000 B.P. Patterns of interaction and movement are relatively well known to us from modern studies of the regional archaeological record.

The Upper Savannah sequence entails two consecutive prepottery Late Archaic phases. The Paris Island phase (4500-4200 B.P.) is marked by the use of small stemmed bifaces made from local quartz and metavolcanic rock, winged bannerstones, and perforated soapstone cooking stones (Wood et al. 1986; see Elliott et al. 1994:370). Dating from about 4200-3800 B.P. (Elliott et al. 1994:371), the succeeding Mill Branch phase of the middle Savannah region is a distinctive cultural expression involving the use of large metavolcanic bifaces, cruciform drills, soapstone cooking stones, and large, notched winged bannerstones. Bifaces of the Mill Branch phase are the local expression of the Savannah River Stemmed type defined by Coe (1964). Communities of both the Paris Island and Mill Branch phases occupied riverine and interriverine locations, presumably on a seasonal basis. Toward the end of the Mill Branch phase, settlements appear to have been restricted to interriverine locales in the middle Savannah River valley.

The Lower Savannah sequence is that of Stallings culture, makers of the region's first pottery. Stoltman (1972) established a three-part sequence for Stallings culture to encompass prepottery (Stallings I), early pottery (Stallings II), and later pottery phases (Stallings III). The prepottery phase has recently been redefined as the Allendale phase based on stratigraphic recognition of its definitive lanceolate stemmed and notched points made on Coastal Plain chert (Sassaman et al. 2002:17–19). The early pottery phase, Stallings II or Early Stallings, begins in the Coastal Plain at ca. 4500 B.P. and perhaps earlier on the coast, although sea-level transgressions over the ensuing centuries have obscured the coastal record. As noted earlier, the definitive form of Early Stallings pottery is a shallow, flat-bottomed, basin-shaped vessel with fiber temper, plain surface treatments, and thickened and/or flanged lips. The subsequent Stallings III phase, herein the Classic Stallings phase, marks the advent of elaborately decorated surfaces on semi-hemispherical bowls after ca. 3800 B.P.

Many differences besides the use of pottery attest to distinct culture histories for the Upper and Lower Savannah, but shared elements stand as evidence for occasional, if not sustained, contact between the provinces. Items of Piedmont origin appearing in Early Stallings assemblages of the Coastal Plain include soapstone cooking stones and bannerstones. The former are actually quite numerous at some Coastal Plain sites, the latter quite rare. Items of coastal origin in Paris Island and Mill Branch assemblages include marine shell beads, which occur with appreciable frequency in burials of middle Savannah sites, including Stallings Island. Despite interactions between these respective communities, pottery was never adopted for use by Paris Island or Mill Branch groups, at least not regularly enough to become archaeologically visible.

Features, shell midden, and associated radiocarbon assays all point to regular and intensive use of Stallings Island through the Paris Island phase and the first two centuries of the Mill Branch phase (ca. 4200–4000 B.P.). Of the nearly 3,000 bifaces we sorted from the Claffin collection, 1,631 or 55 percent were made from metavolcanic materials, a hallmark of these phases, and hundreds comfortably fit the type description for Mill Branch points. Combined with Claffin's observations of thick shell strata along the perimeter of Stallings Island, the profile of LP81 attests to intensive shellfishing during Paris Island and especially Mill Branch times. Shallow pit features dating to this interval are widely distributed across the site, as are an untold number of human interments of probable prepottery age.

Stallings Island was apparently underutilized or abandoned during the centuries when Early Stallings occupation began in the middle Savannah area. Perhaps enabled by long-standing interactions with Piedmont neighbors, groups of Early Stallings affiliation moved in to the middle Savannah after about 4100 B.P. Several sites in the area reflect this shift in regional demography. Victor Mills (9CB138) is a single component site about 1.3 km south of Stallings Island (Figure 1) with Early Stallings pottery and radiocarbon assays of ca. 4000 B.P. Another Early Stallings component is dated to ca. 3800 B.P. at the Ed Marshall site (38ED5), less than .7 km east of Stallings Island (Figure 1). A third site at the confluence of Uchee Creek and the Savannah River, some 10 km northwest of Stallings Island, is estimated to date ca. 3900 B.P. (Smith 1974). The Rae's Creek site 10 km downriver from Stallings Island contained a deeply buried Early Stallings assemblage with three assays on charcoal ranging from 4370 to 3800 B.P. (Crook 1990, 1991). Each of these sites produced sizeable assemblages of plain fiber-tempered pottery with thickened and/or flanged lips and bifaces made from Coastal Plain chert. Stallings Island, in contrast, holds little evidence for Early Stallings use. Of the 974 fiber-tempered vessel lots identified in our sorting of rim sherds in the Claflin collection, 240 were plain, but only 10 were fitted with thickened and/or flanged lips. The Early Stallings pottery assemblage at Stallings Island is thus too sparse to suggest anything other than transient use of the site from ca. 4000-3800 B.P. Mill Branch use of Stallings Island during this interval was likewise apparently negligible.

After about 3800 B.P. Stallings Island was again a locus of intensive habitation, this time by communities of Classic Stallings cultural affiliation, widely regarded as the historical outgrowth of Early Stallings culture. The hallmark drag-and-jab punctated pottery and related wares of Classic Stallings

REPORTS

times comprise three-fourths (n = 734 vessel lots) of the pottery assemblage in the Claffin collection. Likewise most, perhaps all, of the plain fiber-tempered vessel lots (n = 230) lacking thickened and/or flanged lips date to this later phase.

As noted by Claflin, evidence for Classic Stallings occupation of the island is concentrated at the very top of the "mound." Good contexts for dating this component came from pit features in or near the center of the Cosgroves' block. Complementary contexts in the thick shell strata of LP81 were not found, owing to the ravages of flooding, as Claflin suggested, but perhaps also because peripheral, side-slope areas of the site were not as intensively utilized for refuse disposal as they were during earlier occupations. Indeed, a shift in refusedisposal practices accompanied the advent of Classic Stallings habitation. Large, deep pits, presumably dug for storage, were often converted into refuse receptacles. Such features have never been found in Paris Island or Mill Branch contexts at Stallings Island or elsewhere, but they are common at Early Stallings sites in the middle Savannah and provide another strand of continuity with the Classic Stallings phase. With the assistance of unpublished field notes on features dug by the Cosgroves, these deep pit features are the key to reconstructing community pattern during this second and final phase of intensive occupation.

Community Pattern

The published plan of features in the Cosgroves' excavation shows that pits, "fire places," and burials were concentrated in the center of their block, with additional pits and burials located in their "North Face" excavation (Claffin 1931:Plate 7). Claffin notes that pits and hearths were also found in his earlier diggings, but only those containing burials appear in the published plan map. Although direct evidence for habitation structures eluded Claffin and the Cosgroves (as well as all later investigators), Claffin (1931:12) was certain that "the majority of the shelters were grouped together along the center of the mound."

Unpublished field records of features dug in the Cosgroves' Block not only support Claffin's supposition but suggest further that the Classic Stallings occupation assumed a formalized, circular, or semicircular plan. This assertion is supported by four observations: (1) nonrandom patterning in the placement of pit features containing pottery; (2) similarity to circular configurations from coastal sites and the nearby Mims Point site; (3) nonrandom patterning in pits among inferred household feature clusters; and (4) nonrandom patterning in the locations of burials.

In the absence of information to discriminate between early and late components, the plan of pit features in the Stallings Island report (Claflin 1931:Plate 7) evinces no clear spatial patterning other than a tendency for burials to be concentrated in the very center of the block (Figure 6a). The published account makes no distinction between pits dating to the prepottery phase and the Classic Stallings phase, for indeed, such was precluded by Claflin's belief that the midden and associated feature assemblage was entirely Stallings-aged, a few intrusive burials excepted. That many of the pit features lacked Stallings pottery apparently did not affect Claflin's thinking about the age of the assemblage. Our radiocarbon dating confirms that at least some of the pit features lacking pottery in the south end of the block indeed date to prepottery occupations.

Fortunately, the unpublished field notes made by the Cosgroves provide sufficient detail to separate definite Stallings-period features from all others. The notes include systematic descriptions of the location, diameter, depth into basal clay, and general content and condition of all 110 pits the Cosgroves mapped and dug. Clearly noted are pits containing sherds of the "typical" Stallings ware. Decoration on pottery from pits is described initially as "parallel line stick marked," or "striated and stick marked," and thereafter simply as "typical."

Thirty-eight of the 57 pits noted to contain artifacts in the Cosgroves' Block contained Stallings fiber-tempered pottery (Figure 6b). We added another two Stallings features (Features 17 and 16) from our testing in LP3. The distribution of these 40 features shows possible nonrandom tendencies. Pits with Stallings pottery are widely distributed but noticeably scarce in the south end and in the very center of the block. Their overall distribution assumes an arc-like or oval pattern, with a central area of 10 x 20 m with no pit features.

Arcuate or circular compounds are commonplace to Stallings settlements on the coast. Shell rings of the Atlantic coast were occupied even before Stallings times in coastal Georgia and north-



Figure 6. Plan distribution of features excavated by the Cosgroves (a) showing feature types as published in Claffin 1931:Plate 7; and (b) showing only those features with diagnostic Stallings pottery.

east Florida and continued into the ensuing Thoms Creek phases of the South Carolina coast (Russo and Heide 2001). Coastal shell deposits generally conforming to circular or semicircular shapes range from tens to hundreds of meters in diameter and up to 5.5 m tall. Some are fully enclosed, others are open, and most have interiors devoid of midden and features. None have produced solid evidence for houses, but those adequately tested typically contain shellfish steaming pits and related features. All of the so-called rings that have been mapped to modern standards are actually asymmetrical configurations with mounded components indicative of some measure of functional or social differentiation (Russo 2004). Although unequivocal evidence for habitation continues to be elusive, some indirect evidence exists for intensive, if not permanent, occupation at shell rings involving largescale feasting (e.g., Saunders 2002).

The closest known shell ring to Stallings Island is Chesterfield (38BU29) on Port Royal Island near Beaufort, South Carolina (Flannery 1943). Approximately 200 km from Stallings Island, Chesterfield is a horseshoe-shaped deposit 55-m in diameter

and open to the west. Its arcuate form may have been fully enclosed before the early 1930s, when Woldemar Ritter and Warren K. Moorehead conducted limited excavations. Their testing revealed mostly oyster interspersed with layers of dark earth and periwinkle shell and an interior devoid of midden or other obvious traces of human activity. The pottery Ritter and Moorehead collected was, in fact, the sample used by Griffin (1943) to establish the Stallings type series. Other sherds from Chesterfield are curated at the Charleston Museum. These bear remarkable affinity to Classic Stallings sherds from Stallings Island, although they are different enough in subtle stylistic and technological attributes to suggest they derived from distinct, albeit closely related, communities. At 3660 ± 50 B.P., the single radiocarbon assay from Chesterfield, taken from a sooted drag-and-jab sherd, is fully contemporaneous with the Classic Stallings occupation of Stallings Island.

Given the contemporaneity and cultural affinity between Classic Stallings occupations at Stallings Island and on the coast, it is reasonable to expect that circular settlements with open, cen-



Figure 7. Plan distribution of excavation unit, midden, and features at Mims Point (38ED), showing projected pit feature clusters of a circular domestic compound with a central area largely devoid of features.

tral "plazas" would be found in the middle Savannah. As with shell rings, sites in the middle Savannah have not provided much direct evidence for community pattern. The closest we have come to observing a relatively complete pattern is at the Mims Point site (38ED9), located about 1.2 km north of Stallings Island (Figure 1). Unlike the latter site, Mims Point is a small, shallow site on a ridge nose formed by the confluence of Stevens Creek and the Savannah River. The primary deposit is a roughly circular area of anthropogenic soil (midden) on the spine of the ridge nose. This area of the site was the focus of block excavations in three seasons from 1992 to 1995. Results of the first season of work were issued in 1993 (Sassaman 1993b); a report on the other two seasons is pending.

Hand excavation of 364 m² of Mims Point involved removal of the plowzone to expose features that penetrated into basal clay. Several Middle Archaic and Late Woodland features in the northwest quadrant of the block interfered with our recognition of an otherwise Classic Stallings feature assemblage, securely dated by radiocarbon to ca. 3630–3600 B.P. The remainder of the block, however, was unaffected by other components, giving us a clear view of the spatial configuration of a Classic Stallings settlement. Several lines of evidence point to a circular village plan of 7–9 structures with a central "plaza" generally devoid of features (Figure 7).

Systematic coring of Mims Point showed that the anthropogenic soil of ridgetop midden is roughly circular in plan, and 30–40 m in diameter. Classic Stallings pits of diverse size and shape were associated with hearths in clusters along the inside perimeter of the midden, about half of which was excavated. Except for one pit cluster and a hearth in the northeast quadrant, the interior core of the midden was relatively devoid of pit features, giving the impression of a central "plaza" some 15–16 m in diameter.

Pit clusters along the inside perimeter of the midden included not only hearths but at least one large storage pit. Nearly one meter wide, each of these meter-deep pits was sunk into residual clay and later used as receptacles for refuse, including abundant diagnostic artifacts and well-preserved organic remains. In the two best-documented clusters, storage pits occupied positions proximate to the central plaza and to the right of an aspect facing the center. We suspect that each of these fea-



Figure 8. Plan distribution of features excavated by the Cosgroves (a) showing Mims Point circular village model superimposed over projections of pit features by depth into clay; and (b) showing human interments coded for sex (after Claffin 1931:Plate 7).

ture clusters is the locus of a domestic structure. with an associated storage pit to the right of an opening that faced inward. Occasional postholes and negative spaces among pit clusters are suggestive, although admittedly inconclusive evidence for actual structures. Presumed house floors were compromised by historic-era plowing, and post construction must have been shallow, if at all routinely practiced. Nevertheless, the proxy evidence for structures afforded by the pit clusters suggests discrete domestic spaces on the order of 30 m², each spaced along the inside perimeter of the midden by 6-8 m on center. The outline of another circular settlement can be inferred from the distribution of Classic Stallings pottery at Ed Marshall, 1.6 km down stream from Mims Point, but at this site individual pit clusters have not been observed due to limited excavation and extensive looting.

A circular model the size and shape of the Mims Point settlement encompasses most of the Classic Stallings pit features at Stalling Island (Figure 8a). All but eight of 40 pits with Stallings pottery are contained within a projected circle some 28-m in diameter. These are scattered widely although there are suggestive tendencies for clusters of four to seven pits in several locations. Using the Mims Point parameters of household pit clusters of 5-6 meters in diameter, four pit clusters can be proposed within the excavated portion of the projected circular compound (Figure 8a).⁶ It is noteworthy that each of these hypothetical clusters contains a similar mix of shallow and deep pits, like the Mims Point clusters (Table 2), each with at least one large, deep silo.

As seen in Figure 8b, the distribution of burials in the block shows an unequivocal nonrandom pattern for location within the projected "plaza" of the Mims Point model.⁷ Thirty-two (55.2 percent) of the 58 burials in the Cosgroves' Block fall inside the projected plaza, and another 11 (19.0 percent) are situated in the larger circle. The projected plaza population consists entirely of adults. An infant and a subadult occupy a location on the outer northeastern edge of the plaza, and a second infant was placed on the outer southwestern edge of the larger circle, but none reside in the central area. Granted, the size of the subadult population is small, but given the disproportionate number of burials in the projected plaza, some representation by subadults is expected based on chance alone.

REPORTS

	Cluster 1	Cluster 2	Cluster 3	Cluster 4	
Maximum width (cn	n)				
n	5	4	7	6	
mean	108.20	91.44	90.30	75.69	
minimum	91.44	76.20	60.96	60.96	
maximum	121.92	106.68	101.60	91.44	
st. dev.	11.86	12.44	13.81	12.50	
c.v.	0.11	0.14	0.15	0.17	
Depth into clay (cm))				
n	5	4	7	5	
mean	80.26	71.12	79.03	63.92	
minimum	40.64	30.48	35.00	50.80	
maximum	114.30	91.44	121.92	106.68	
st. dev.	31.45	27.82	28.55	21.46	
c.v.	0.39	0.39	0.36	0.34	

Table 2. Summary Statistic	es on Maximum Wid	th (cm) and Depth in	to Clay (cm) of Pits
with Stallings Potter	y in Cosgroves' Blocl	k by Projected House	chold Clusters.

Other possible nonrandom tendencies are noteworthy. Females tend to be located in the southeast quadrant of the projected plaza, an area otherwise bereft of burials. Overall, individuals recorded as female are underrepresented in the plaza (36.4 percent) compared to those identified as male (58.8 percent). A cluster of five burials in the very center of the projected plaza include no identified females and two identified males. An additional four males, one female, and an unsexed adult occupy an area within 3 m of the center. All but one of these individuals was in a flexed position, and five have their heads oriented toward the center. The exception to flexing is a seated burial in the northwest quadrant. Three other examples of seated burials were found in the outer periphery of the projected plaza, one each in the northeast, southeast, and southwest quadrants. Sample size and problems of ascription notwithstanding, these tendencies give us cautious optimism that the layout of mortuary space at Stallings Island was highly structured and thus possibly indicative of social identity.

We emphasize at this juncture that both the circular village and central cemetery we infer from the patterned distribution of features need to be corroborated with independent data. A second area of concentrated burials and Classic Stallings pottery at the north end of the "mound" may provide an opportunity for future testing. This is the area dug by Jones (Figure 2) that elicited his thoughts of a "necropolis." That it also produced much pottery suggests that a second circular compound may have existed some 30 m northwest of the one we infer for the Cosgroves' Block. Of course, we stress again caution in interpreting this patterning too literally, for many of the burials at Stallings Island are indeed of earlier age. Irrespective of the particular dating of specific burials, Jones was right that Stallings Island was a unique place on the landscape. Two other aspects of the Classic Stallings occupation at Stallings Island, both innovations in subsistence technology, underscore the uniqueness of this site.

Specialized Subsistence Technology

Two technological components of the Classic Stallings inventory heretofore underrepresented were particularly numerous in the Claffin collection from Stallings Island. One of these, the carinated bowl, is virtually unique to this site.

Carinated Vessels. Stallings Island is one of the few sites in the middle Savannah to contain vessels with carinated rims, some as much as 50 cm in diameter (Figure 9). These forms were described briefly by Claflin (1931:Plate 11), but he provides no insight on their prevalence at Stallings Island, nor on their uniqueness in the region. One-hundred-thirty vessel lots identified in the Stallings Island collection include carinated rim profiles. This amounts to over 14 percent of the vessel assemblage. The only other middle Savannah site with more than a trace of carinated vessels, Lake Spring, has less than one third this proportion.

Surface treatments on vessels with carinated rims are diverse. Although the majority involves



Figure 9. Examples of carinated rim sherds from the Claffin collection of Stallings Island (courtesy of Peabody Museum of Archaeology and Ethnology, Harvard University).

some form of decoration, nearly one-quarter are plain and another third are merely simple stamped. The formal and technological properties of carinated bowls provide some basis for inferring function. In overall design the Stallings Island vessels are highly reminiscent of Mississippian carinated bowls. In his study of Barnett phase (northwest Georgia) Mississippian vessel function, Hally (1986) makes a strong case that this form was used primarily to prepare and serve large quantities of liquid-based foods in highly social contexts. The low, flat profile of the form and its wide orifice provide good access to contents while remaining stable and spill resistant. These same properties render carinated forms inefficient for prolonged cooking, suggesting to Hally (1986:288–289) that those with soot (43 percent of his sample) were used to reheat foods prepared in vessels better suited to cooking.



Figure 10. Examples of socketed antler projectile points from the Claffin collection of Stallings Island (courtesy of Peabody Museum of Archaeology and Ethnology, Harvard University).

Carinated bowls in Hally's Barnett phase sample fall into two size classes: small bowls with orifice diameters in the range of 15–25 cm, and large bowls ranging 28–42 cm in orifice diameter.

Carinated bowls from Stallings Island do not cluster neatly into distinct size classes, although the entire range conforms moderately well to that of the Barnett phase. With a few exceptional outliers at either end, the frequency distribution of orifice diameters for Stallings Island specimens (n = 53) is unimodal, with a mean of 33.3 and standard deviation of 7.8 cm.

The prevalence of carinated vessels at Stallings Island raises the possibility that a significant "push" for intensified production and use of pottery was increased demand for serving vessels, not cooking vessels (see Rice 1999). The regular use of pottery vessels for serving purposes is expected to have led to higher rates of pottery production and consumption by virtue of short use-life. Ethnoarchaeological studies worldwide provide data to show that serving vessels last an average of only 1.5 years, compared to 2.2 years for cooking vessels, and 5.2 years for storage vessels (Mills 1989; Rice 1987:Table 9.4). It follows that increased demand for serving vessels in particular had the greatest potential for production intensification of vessels in general (cf. Brown 1989).

Socketed Beveled Antler Points. Another innovation whose production and use was intensified during the Classic Stallings phase was a socketed antler point with a beveled tip (Figure 10). Only one example of this tool form was illustrated in the 1931 report (Claffin 1931:Plate 41c), and only one other example has been published, a single specimen from Early Stallings context at Rabbit Mount (Stoltman 1972). Although this latter example and another, unpublished specimen from Victor Mills (9CB138) attest to the use of this form early in Stallings times, their production was seemingly increased in the waning centuries of the period, during the Classic Stallings phase. Twenty-seven socketed antler points were identified by us in the Claffin collection from Stallings Island and another 12 were recovered in our 1999 excavations (Blessing 2004). Five of the 12 came from Classic Stallings pits in LP3 and another two came from the general fill of an adjacent test unit (TU4). All three socketed antler points from Mims Point came from the pit features of one household cluster. It thus appears that socketed antler points were not only largely Classic

Stallings in age but limited to select contexts within Classic Stallings communities.

Socketed antler and bone projectiles have been made since Paleoindian times, and derived forms are common to Shell Mound Archaic sites throughout the Southeast. However, the beveled antler form is unique to Stallings inventories. All specimens were manufactured from the antler of white-tailed deer using either the main beam or the tine. The antler was first sectioned by a cut-and-snap technique to create blanks for shaping. Longitudinal striations and occasional tranverse "chatter" marks (Olsen 1988) attest to shaving with stone tools. The proximal end was bored out to remove the pithy core for hafting, and all examples were polished across their entire surfaces. The chief attributes that distinguish this form from other bone and antler tools are its cross section and degree of beveling.

Socketed and beveled antler points represent an innovation within a long-lived tradition of antler and bone tool manufacture. While this form may have served general projectile functions, and perhaps nonprojectile piercing functions, its association with the remains of large fish at Stallings Island warrants consideration. In his 1931 report, Claffin alludes to "quantities" of sturgeon bone among the food remains from Stallings Island. Limited analysis of the vertebrate fauna from the 1970 Crusoe expedition discounted this assertion, suggesting that Claffin misidentified elements of soft shell turtle for sturgeon (Weinand and Reitz 1992). Ongoing analysis of vertebrate fauna from four sites in the middle Savannah supports Claflin's observation (Blessing 2004). In fact, the Claffin collection contains several modified elements of sturgeon, including a large perforated bony plate.

Sturgeon of impressive size were effectively taken by spears among historic-era Indians along the Savannah River. Adair (cited in Swanton 1946:338) gives an account of fish spearing along the Savannah with implements manufactured from green cane. The buoyancy of the cane allowed the fishermen to follow the fish and strike repeatedly until it could be taken. Smith and Strachey (cited in Swanton 1946:338) refer to the Accomac Indians in Virginia using a spear not unlike "staves, unto javelins, headed with bone." Rostlund (1952:114) highlights the fact that in the East, sturgeon were not usually taken with hooks, but most often secured with either nets or spears. Bourque (1995:89) details recent historic accounts of sturgeon being "lured at night by torchlight and speared in the belly as they rolled near the surface."

The actual contribution of sturgeon and other large fish (such as the occasional 50+ pound catfish) to Classic Stallings diet is uncertain. Irrespective of daily dietary value, large fish in general are the sort of resource that cross-culturally garners social prestige among those with the wherewithal to routinely capture them. Value often stems from the risk involved, but perhaps more so from opportunities to share. In this sense large fish may have been the aquatic equivalent to terrestrial game and perhaps factored into the sorts of social or ritual activities implicated by the use of large serving vessels, a formalized settlement plan, and interment of the dead.

Discussion and Conclusions

Stallings Island was the locus of two periods of intensive occupation by communities whose histories intertwined but whose origins and ancestry were distinct. Interpretations of Stallings Island have long been biased by the conflation of these two components, or, if recognized as distinct, by the assumption of cultural continuity between them. Those previously acknowledging the site-unit intrusion of Stallings culture mistakenly associated the onset of shellfishing at this site with the influx of interlopers from the coast.

We can now be certain that much, perhaps most, of the shell at Stallings Island accumulated in the centuries before groups of Stallings cultural affiliation occupied the site. Combining our observations of LP81 with the earlier observations of Jones and Claflin, it also appears evident that much of this prepottery shell accumulated around the perimeter of the site in successive strata 20 to 60 cm thick. Jones observed as much as 3.7 m of stratified shell at the north end portion of the site, arrayed in layers 20-25 cm thick, interspersed with sand. In the west-central portion of the site, Claflin observed nearly 3 m of stratified shell midden, arrayed in five distinct layers. In their field notes the Cosgroves make a similar comment about shell in the west end of Trench 2, noting as well the relative lack of pottery in this portion of the site.

Putting these disparate observations together, one can reasonably conclude that if Stallings Island were a flat landform, the accumulated shell deposits of its perimeter would have formed an arcuate or ring-shaped deposit approximately 60 m in diameter and upwards of 3 m tall. Being instead domelike, the Stallings Island landform received repeated loads of shell and other refuse over its northeast and southwest sideslopes, broadening the landform but adding little relief to its upper portion. Besides the topographic differences between Stallings Island and locations of shell rings on the coast, the shell deposits at Stallings Island contained numerous burials, something not observed routinely at shell rings. Those observed by Jones were concentrated at the north end of the site, and were apparently interred in stratified layers that indeed lent additional topographic relief to the landform. In this respect, Jones's appellation of "mound" for Stallings Island is perhaps not so far-fetched.

Archaic-period mortuary mounds have never before been documented for the greater Savannah River region, but such facilities are not without precedent in the lower Southeast. Mortuary mounds consisting of alternating layers of shell and sand or muck are now securely dated to as much as 5500 B.P. in the St. Johns region of northeast Florida (Aten 1999; Russo 1996). Although a direct historical link between the St. Johns and the middle Savannah has not been established, bannerstones in Archaic mounds of Florida include forms and raw materials that almost certainly originated in the Savannah River region (Sassaman 1998b, 2004; Sassaman and Randall 2004).

The more immediate historical connection among regional population is that between Paris Island and Early Stallings communities along the Savannah River. Interactions between these distinct groups likely contributed to the onset of shellfishing at Stallings Island. Importantly, this addition to the activities of prepottery groups in the middle Savannah was not widespread. With the possible exception of one other site in the middle Savannah (Lake Spring), Stallings Island was the sole locus for intensive shellfishing by prepottery communities. Shellfishing at both sites appears to have been associated with mortuary activities. Whereas the bias of preservation afforded by shell must be taken into consideration, the specialized nature of this subsistence practice alone is testimony to increased functional differentiation among sites. Other prepottery sites in the immediate vicinity of Stallings Island and Lake Spring lack shell altogether, underscoring the uniqueness of Stallings Island as a locus of intensive shellfishing. Claassen's (1992) hypothesis for mortuary uses of shell may not adequately explain shellfishing in the Midsouth (e.g., Crothers 1999; Hensley 1994; Milner and Jefferies 1998), but it may very well explain the origins of freshwater shellfishing in the middle Savannah, and perhaps the St. Johns basin too.

Stallings Island was first abandoned at ca. 4000 B.P. by Mill Branch communities when groups of Early Stallings affiliation moved into the middle Savannah from ancestral land downriver. The reoccupation of Stallings Island after 3800 B.P. by groups of Classic Stallings affiliation was matched at a series of sites in the middle Savannah, notably Mims Point and Ed Marshall. Each of these three sites was the locus of a more-or-less permanent village whose array of structures assumed a semicircular or circular configuration about 30 m in diameter. The advent of circular settlements is hardly surprising given the unequivocal historical connection with coastal populations whose shell rings and arcuate middens extend back several centuries. Distinguishing the middle Savannah Stallings communities from those of the coast are, among other traits, the use of a central space for burials. In this respect, Stallings Island is unique among the middle Savannah sites for neither Mims Point nor Ed Marshall have central burials, and preservation at these sites is as good, if not better, than at Stallings Island. Coupled with the exclusive use of carinated vessels, the mortuary assemblage signifies a return to the specialized function of Stallings Island 200 years after it was abandoned.

The combined evidence for shellfishing, human interment, and at least indirect evidence for feasting puts Stallings Island and its larger Archaic context in new light. Changes in technology, such as the addition of pottery in general, as well as lesser known innovations, such as the use of pit storage, carinated bowls, and specialized antler points, do not appear to reflect widespread economic changes due to climatic stress or even population-resource imbalance, but instead, the cost of intensified ritual activity. That economic intensification was driven by ritual or alliance-making is nothing new (e.g., Bender 1985; Lourandos 1988), but the Stallings Island case grounds this process to a particular set of historical circumstances, including population relocation, and to a specific locus. Despite distinct histories, the two major communities that chose to occupy Stallings Island, collect massive quantities of shellfish, and inter their dead there held something in common about the significance of this place. In this respect, Jones can be vindicated for his poetic sentiment about this "island of the dead."

The ultimate abandonment of Stallings Island and the greater middle Savannah area at ca. 3500 B.P. is a subject of ongoing research We are currently investigating the ecological circumstances surrounding this "event" through analyses of multiple paleoecological and subsistence data sets. The results to date do not point clearly to any abrupt or sustained downturn in the availability of food, fuel, or raw materials. Subtle changes in the morphology of clam shell and in the proportions of certain vertebrate and plant species in the diet may signal ecological and economic stress (Auten 2004; O'Day 2001), but again these changes could have been stimulated by acute, temporary demands from the activities (i.e., feasting) that led to rapid infilling of pits at Stallings Island. Irrespective of the fate of those who occupied Stallings Island in the Late Archaic period, later Mississippian and historic-era residents of the middle Savannah would return to the site occasionally to inter their dead. It appears that Stallings Island was repeatedly incorporated into the ritual life of native peoples, as it continues to be today in its designation as a National Landmark.

We trust we have shown that Stallings Island is quite capable of supplying much new and relevant data in the ongoing effort to historicize the ancient past. So much has been learned by judicious testing at a site riddled with damage, and, more so, by the analysis of extant collections. Revisiting Stallings Island has been especially significant because it occupies such a prominent place in both culture history and explanatory models. We hope that our contribution to this legacy is to encourage, through empirical example, explicitly historical analyses of cultural variation and change.

Acknowledgments. Field research at Stallings Island was funded by the National Geographic Society and the University of Florida, College of Liberal Arts and Sciences. Collections and archival research was funded by a Franklin Grant from the American Philosophical Society, and by the

National Science Foundation, which also funded laboratory research for the larger Stallings Archaeological Project. Thanks to the Archaeological Conservancy, stewards of Stallings Island, for access to the site and institutional support. Associate Curator at the Peabody Museum, Diana Loren, made our work on the Claffin collection not only possible, but enjoyable. Institutional support for the Stallings Island expedition was provided generously by the Savannah River Archaeological Research Program (Mark Brooks, Director) and Department of Anthropology, University of Florida (Allan Burns, Chair). For hard work under challenging field conditions we thank Dan and Rita Elliott, Pat O'Day, Gifford Waters, Jamie Anderson-Waters, Sean Connaughton, Michael White, Dawn Ramsey, Jamie Waggoner, Kevin Eberhard, Chris Lydick, Kristin Wilson, Keith Stephenson, the late George Lewis, and others to whom the senior author apologizes for forgetting. Revisions on an earlier draft of this paper benefited from comments by Adam King, Barbara Purdy, Dean Wood, David Anderson, Dan Elliott, and one anonymous reviewer. Our thanks to Augusto Oyuela-Caycedo for the Spanish translation of our abstract.

References Cited

Anderson, David G., and Joe Joseph

1988 Prehistory and History Along the Upper Savannah River: Technical Synthesis of Cultural Resource Investigations, Richard B. Russell Multiple Resource Area. Russell Papers, Interagency Archeological Services Division, National Park Service, Atlanta.

Auten, Beth

2004 Utilization of Mast Resources by Late Archaic Peoples of the Middle Savannah River Valley. Unpublished M.A. thesis, Department of Anthropology, University of Florida, Gainesville.

Bender, Barbara

- 1985 Emergent Tribal Formations in the American Midcontinent. *American Antiquity* 50:52–62.
- Blessing, Meggan E.
 - 2004 Socketed Antler Tools, Anadromous Fish, and Stallings Archaic Foragers. Unpublished thesis paper, Department of Anthropology, University of Florida, Gainesville.

1995 Diversity and Complexity in Prehistoric Maritime Societies: A Gulf of Maine Perspective. Plenum Press, New York.

Brown, James A.

1989 The Beginnings of Pottery as an Economic Process. In What's New? A Closer Look at the Process of Innovation, edited by E. E. van der Leeuw, pp. 203–224. Unwin Hyman, London.

Bullen, Ripley P., and H. Bruce Greene

1970 Stratigraphic Tests at Stalling's Island, Georgia. *The Florida Anthropologist* 23:8–21.

Claassen, Cheryl

1992 Shell Mounds as Burial Mounds: A Revision of the Shell Mound Archaic. In *Current Archaeological Research* in Kentucky, edited by D. Pollack and A. G. Henderson, pp. 1–12. vol. 2. Kentucky Heritage Council, Frankfort.

Claflin, William H., Jr.

1931 The Stalling's Island Mound, Columbia County, Georgia. Peabody Museum of American Archaeology and Eth-

Bourque, Bruce

nology Papers 14(1). Cambridge.

Coe, Joffre L.

1964 The Formative Cultures of the Carolina Piedmont. Transactions of the American Philosophical Society 54(2). Philadelphia.

Crook, Morgan R.

- 1990 The Rae's Creek Site: A Multicomponent Archaeological Site at the Fall Line along the Savannah River. Report submitted to the Environmental Analysis Bureau, Georgia Department of Transportation. Department of Anthropology, Georgia State University, Atlanta.
- 1991 Chronology of a Stratified Archaic Sequence in the Central Savannah River Valley. *Early Georgia* 19(2):21-33.
- Crothers, George M.

1999 Prehistoric Hunters and Gatherers, and the Archaic Period Green River Shell Middens of Western Kentucky. Ph.D. dissertation, Department of Anthropology, Washington University, St. Louis.

Crusoe, Donald L.

- 1972 Interaction Networks and New World Fiber-tempered Pottery. Ph.D. dissertation, Department of Anthropology, University of Georgia.
- Crusoe, Donald L., and Chester B. DePratter
- 1976 A New Look at the Georgia Coastal Shellmound Archaic. *The Florida Anthropologist* 29(1):1–23.
- Elliott, Daniel T., R. Jerald Ledbetter, and Elizabeth A. Gordon 1994 Data Recovery at Lovers Lane, Phinizy Swamp and the Old Dike Sites Bobby Jones Expressway Extension Corridor Augusta, Georgia. Occasional Papers in Cultural Resource Management 7, Georgia Department of Transportation, Atlanta.

Fairbanks, Charles H.

1942 The Taxonomic Position of Stalling's Island, Georgia. American Antiquity 7:223–231.

Griffin, James B.

- 1943 An Analysis and Interpretation of Ceramic Remains from Two Sites near Beaufort, South Carolina. *Bureau of American Ethnology Bulletin* 133:159–168. Washington, D.C.
- Hally, David

1986 The Identification of Vessel Function: A Case Study from Northwest Georgia. American Antiquity 51:267–295. Hensley, Christine

1994 The Archaic Settlement System of the Middle Green River Valley. Ph.D. dissertation, Department of Anthropology, Washington University, St. Louis.

Hodge, Christina

2000 Repatriation of the Stalling's Island Mound Collection: An Assessment of Human Remains and Funerary Objects in the Collections of the Peabody Museum of Archaeology and Ethnology, Harvard University. M.A. thesis, Department of Anthropology, Boston University, Boston.

- 1861 Monumental Remains of Georgia. John M. Cooper and Company, Savannah, Georgia.
- 1873 Antiquities of the Southern Indians, Particularly the Georgia Tribes. D. Appleton and Company, New York.

Knoblock, Byron

1939 Bannerstones of the North American Indian. Privately published. LaGrange, Illinois.

Ledbetter, R. Jerald

1995 Archaeological Investigations at Mill Branch Sites 9WR4 and 9WR11, Warren County, Georgia. Technical Report No. 3. Interagency Archeological Services Division, National Park Service, Atlanta. Lourandos, Harry

1988 Paleopolitics: Resource Intensification in Australia and Papua New Guinea. In *Hunter-Gatherers: History, Evolution, and Social Change*, edited by T. Ingold, D. Riches, and J. Woodburn, pp.148–16. Berg, New York.

Mills, Barbara

1989 Integrating Functional Analysis of Vessels and Sherds through Models of Ceramic Assemblage Formation. *World Archaeology* 21(1):133–147.

Milner, George R., and Richard W. Jefferies

1998 The Read Archaic Shell Midden in Kentucky. Southeastern Archaeology 17:119–132.

- O'Day, Patrick
 - 2001 Exploitation of Freshwater Bivalves in the Middle Savannah River Valley, 4500–3500 B.P. Unpublished M.A. thesis, Department of Anthropology, University of Florida, Gainesville.

Olsen, Sandra L.

1988 The Identification of Stone and Metal Tool Marks on Bone Artifacts. In Scanning Electron Microscopy in Archaeology, edited by S. L. Olsen, pp. 337–363. BAR International Series 233. British Archaeological Reports, Oxford.

Rice, Prudence

- 1987 Pottery Analysis: A Sourcebook. University of Chicago Press, Chicago.
- 1999 On the Origins of Pottery. *Journal of Archaeological Method and Theory* 6:1–54.

Rostlund, Erhard

1952 Freshwater Fish and Fishing in Native North America. University of California Publications in Geography, Vol.9, University of California Press, Berkeley.

Russo, Michael

2004 Non-Symmetrical Traits in Shell Rings: Towards an Understanding of Circular Community Dynamics. In *Signs* of *Power*, edited by J. Gibson and P. Carr. University of Alabama Press, Tuscaloosa

Russo, Michael, and Gregory Heide

2001 Shell Rings of the Southeast US. Antiquity 75(289):491-492.

Sassaman, Kenneth E.

- 1993a Early Pottery in the Southeast: Tradition and Innovation in Cooking Technology. University of Alabama Press, Tuscaloosa.
- 1993b Mims Point 1992: Archaeological Investigations at a Prehistoric Habitation Site in the Sumter National Forest. South Carolina. Savannah River Archaeological Research Papers 4. Occasional Papers of the Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- 1998a Distribution, Timing, and Technology of Early Pottery in the Southeastern United States. *Revista de Arquelogia Americana* 14:101–133
- 1998b Crafting Cultural Identity in Hunter-Gatherer Economies. In *Craft and Social Identity*, edited by C. L. Costin and R. P. Wright, pp. 93–107. Archeological Papers of the American Anthropological Association, Number 8.
- 2004 Common Origins and Divergent Histories in the Early Pottery Traditions of the American Southeast. In *Early Pottery: Technology, Style, and Interaction in the Lower Southeast*, edited by R. Saunders and C. Hays, pp. 23–39. University of Alabama Press, Tuscaloosa.

Sassaman, Kenneth E., and David G. Anderson

1995 Middle and Late Archaic Archaeological Records of South Carolina: A Synthesis for Research and Resource Management. Savannah River Archaeological Research

Jones, Charles C., Jr.

Papers 6. Occasional Papers of the Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Sassaman, Kenneth E., and Asa R. Randall

- 2004 Bannerstone Production and Exchange in the Savannah River Valley. Paper prepared for the 2004 Poverty Point Gathering: *The Enigma of the Specialist: Middle* and Late Archaic Beads, Big Bifaces, and Caches in the Lower Mississippi Valley and Greater Southeast, Entering the Mind of the Stone, organized by Jon L. Gibson, September 23–26, 2004.
- Sassaman, Kenneth E., I Randolph Daniel, Jr., and Christopher R. Moore
 - 2002 G. S. Lewis-East: Early and Late Archaic Occupations along the Savannah River, Aiken County, South Carolina. Savannah River Archaeological Research Papers 12. Occasional Papers of the Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- Saunders, Rebecca
- 2002 Summary and Conclusions. The Fig Island Ring Complex (38CH42): Coastal Adaptation and the Question of Ring Function in the Late Archaic, edited by R. Saunders, pp. 154–159. Report submitted to South Carolina Department of Archives and History under grant #45-01–16441. Smith, Richard
 - 1974 The Archaic Period in the Central Savannah River Valley: A Study of Cultural Continuity and Innovation. Ms. On file, Research Laboratories of Anthropology, University of North Carolina, Chapel Hill.
- Stoltman, James B.
 - 1966 New Radiocarbon dates for Southeastern Fiber-Tempered Pottery. American Antiquity 31:872–874.
 - 1972 The Late Archaic in the Savannah River Region. *The Florida Anthropologist* 25(2):37–62.
 - 1974 Groton Plantation: An Archaeological Study of a South Carolina Locality. Monograph of the Peabody Museum No. 1, Harvard University, Cambridge.
- Swanton, John R.
 - 1946 *The Indians of the Southeastern United States*. Smithsonian Institution, Bureau of American Ethnology, Bulletin 137, Washington, D.C.
- Waring, Antonio J., Jr.
 - 1968 The Bilbo Site, Chatham County, Georgia (originally 1940). In *The Waring Papers: The Collected Works of Antonio J. Waring, Jr.*, edited by S. Williams, pp. 152–197. Papers of the Peabody Museum of Archaeology and Ethnology, Vol. 58, Harvard University, Cambridge.

Webb, William S.

- 1939 An Archaeological Survey of Wheeler Basin on the Tennessee River of Northern Alabama. Smithsonian Institution Bureau of American Ethnology Bulletin 122. Washington, D.C.
- Webb, William S., and David L. DeJarnette
 - 1942 An Archaeological Survey of Pickwick Basin in the Adjacent Portions of the States of Alabama, Mississippi, and Tennessee. Smithsonian Institution Bureau of American Ethnology Bulletin 129. Washington, D.C.

Weinand, Daniel C., and Elizabeth J. Reitz

1992 Vertebrate Fauna from the 1970 Excavation at Stallings Island (9Co1), Georgia. Report on file, Zooarchaeology Laboratory, Museum of Natural History, University of Georgia, Athens.

Williams, Stephen

1968 Appendix: Radiocarbon Dates from the Georgia

Coast. In *The Waring Papers: The Collected Works of Antonio J. Waring, Jr.*, edited by S. Williams, pp. 329–332. Papers of the Peabody Museum of Archaeology and Ethnology, Vol. 58, Harvard University, Cambridge.

- Wood, W. Dean, Dan T. Elliott, Teresa P. Rudolph, and Dennis B. Blanton
 - 1986 Prehistory of the Richard B. Russell Reservoir: The Archaic and Woodland Periods of the Upper Savannah River. Russell Papers. Interagency Archeological Services Division, National Park Service, Atlanta.

Notes

1. The modern spelling of the site is "Stallings Island." The possessive form (Stalling's Island) used by Jones (1861, 1873), Claffin (1931), Fairbanks (1942) and Bullen and Green (1970) fell into disfavor in recent decades. Unless quoting directly from Claffin, the modern spelling is used throughout this report.

2. The sketch map provided by Bullen and Greene mislocates previous excavations relative to the pylons, perhaps reflecting the long time between fieldwork and publication. They indicate that the central pylon is adjacent to the Cosgroves' block and amongst the earlier soundings of Claflin. In reality, the central pylon is over 15 m grid-west of the block. The previous excavations Greene intercepted in his own pits were likely those of C. C. Jones.

3. It is curious that Bullen and Greene make no reference to the widely published work of Stoltman at the Rabbit Mount site some 125 km downriver from Stallings Island. In the pages of *American Antiquity* in 1966, Stoltman published two (uncorrected and uncalibrated) radiocarbon assays on charcoal from the base of shell-bearing midden at Rabbit Mount, 4450 \pm 135 B.P. and 4465 \pm 150 B.P. The pottery assemblage from Rabbit Mount was dominated by plain fiber-tempered ware, and the associated assays remain among the oldest dates for pottery in the greater Southeastern U.S.

4. Brief discussion is required on the reliability of sampling freshwater shell for radiometric dating. Species of freshwater shellfish often occupy rivers that course through limestone or related rocks that release ancient carbon into the water and, through filter feeding, into the shells of downstream shellfish. This is indeed the situation in much of the Midsouth, all of northeast Florida, the Ogeechee River of Georgia, and in the lower Savannah River. However, it is not the case for the middle Savannah River, above which none of the rock exposed in its channel include carbonate formations. Previous efforts at dating paired samples of charcoal and shell from the nearby Mims Point site (38ED9) returned consistently comparable results at one-sigma (Sassaman 1998), suggesting that any reservoir effect on shellfish in the area is negligible. Three paired samples analyzed in this effort (F. 17, F. 42, and LP81-VI) returned less-satisfying results, although all but one pair (LP81-VI) are statistically indistinguishable at the two-sigma range. Thus, with corrections for fractionation, freshwater shell dating in the middle Savannah continues to be relatively reliable. Charcoal was the preferred material when samples allowed, but shell was in fact used to obtain 13 of the 22 assays listed in Table 1.

5. The only dramatically aberrant age estimate came from the assay run on unidentified charred material in Feature 7/8.

Located in LP1, Feature 7/8 was an amalgam of pits whose definition became apparent only near the base of the features. Found at the bottom of the largest pit was a rather large deposit of charred material with a thinly laminated structure. A sample submitted for dating returned an assay in excess of 20,000 calibrated years. Casual inspection of the material by paleoethnobotanist Donna Ruhl tentatively ruled out plant material and so we returned to the context to consider possible alternatives. After overlaying the locations of earlier excavations it became apparent that LP1 likely intercepted the unit dug by Claffin marked on Figure 2 as "C1." Although Claffin shows this unit to be rectangular in plan, photographs of his work show instead that the walls of units were not so neat (Claflin 1931:Plate 4). Recognition of Claflin's units in our tests was rendered difficult by his imprecise methods, and we observed no clear contact between intact and disturbed midden in either the walls of LP1 or the features contained therein. However, the complexity of Feature 7/8 may be explained by a mix of intact and disturbed fill, and the material at the bottom was likely deposited in the course of Claffin's digging. Although we remain tentative in this assessment, the material dated at the bottom of Feature 7/8 is most likely burned tar paper.

6. The projected position of Cluster 3 extends beyond the western margin of the Cosgroves' Block, but a 2 x 2-m unit we dug (LP3) captures about one-half of the missing area and adds another two pit features to the inventory.

7. Omitted from this distribution are two individuals who were interred in urns during the Mississippian era. Others undoubtedly date to the late prehistoric or protohistoric era, as well as the prepottery period. Many of the interments cannot be confidently assigned to any given period on the basis of grave content or treatment alone, and so we must exercise caution in interpreting spatial patterning. Nonetheless, the cluster of burials in the projected plaza is hardly coincidental and we suspect that the vast majority of these are indeed of Classic Stallings age.

Received February 23, 2004; Revised September 11, 2005; Accepted September 21, 2005.