

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Goals

The primary goals of the Jehossee survey were to identify, record, and assess the significance of archaeological and architectural sites within the approximately 4,000 acre tract. We believe these goals have not only been met, but have been surpassed.

We recognized that shovel testing the entire high ground area was beyond the funding level available. Instead we sought to examine about 102 acres. We were ultimately able to examine 160 acres. The increase is the result of expanding the survey testing boundaries — covering more area than we initially thought possible. As a result we have identified 16 archaeological sites where previously the entire island was given one site number. Of these 16 sites 13 are on Jehossee proper, one in the waters between Jehossee and the island to the north, and two on the northern island where the Brisbane Plantation was situated (Figure 119).

All 16 sites have been recorded with the S.C. Institute of Archaeology and Anthropology. Mapping grade GPS coordinates were obtained for future relocation and five permanent datums have been established at four of the sites. Many have been photographed and most have been shovel tested at a level of at least 100-foot intervals, with one explored at 50-foot intervals, and four sites examined using five distinct close-interval shovel test grids. A series of 10 3.5-foot units have been excavated at six of the sites.

We believe that six of these sites are not eligible, primarily because they lack both the context and integrity to help address significant research questions. Two sites have been recommended potentially eligible since we were

not able to collect data sufficient to assess their eligibility. We feel there is a very strong likelihood that further research will provide strong eligibility support. The remaining eight sites have been recommended eligible for inclusion on the National Register of Historic Places under Criterion D: Information Potential. These sites exhibit a wide range of data sets, including an excellent assemblage of eighteenth through early twentieth century artifacts (for examples, see Figures 120-122).

We found one standing architectural site on the island and that site was recorded with the S.C. Department of Archives and History. We conducted a thorough assessment of the structure and, in addition, sought the advice of several colleagues, Ms. Sarah Fick, who has 20 years of experience dealing with low country architecture and Ms. Katherine Saunders, who is with Historic Charleston Foundation, an organization which is currently spearheading extensive architectural and documentary study of the Aiken-Rhett House in Charleston.

This site has also been recommended eligible for inclusion on the National Register under Criteria A and C.

Secondary goals included developing a historical overview, attempting to identify untapped sources of documentary information; comparing the identified archaeological resources with the historical documentation to better understand the island and its plantation activities; and developing guidance for the USFWS to more effectively manage the resources present on the island.

While much of the historic overview consisted of compiling documents which are well known and others have repeatedly cited, we believe that our search has resulted in at least a

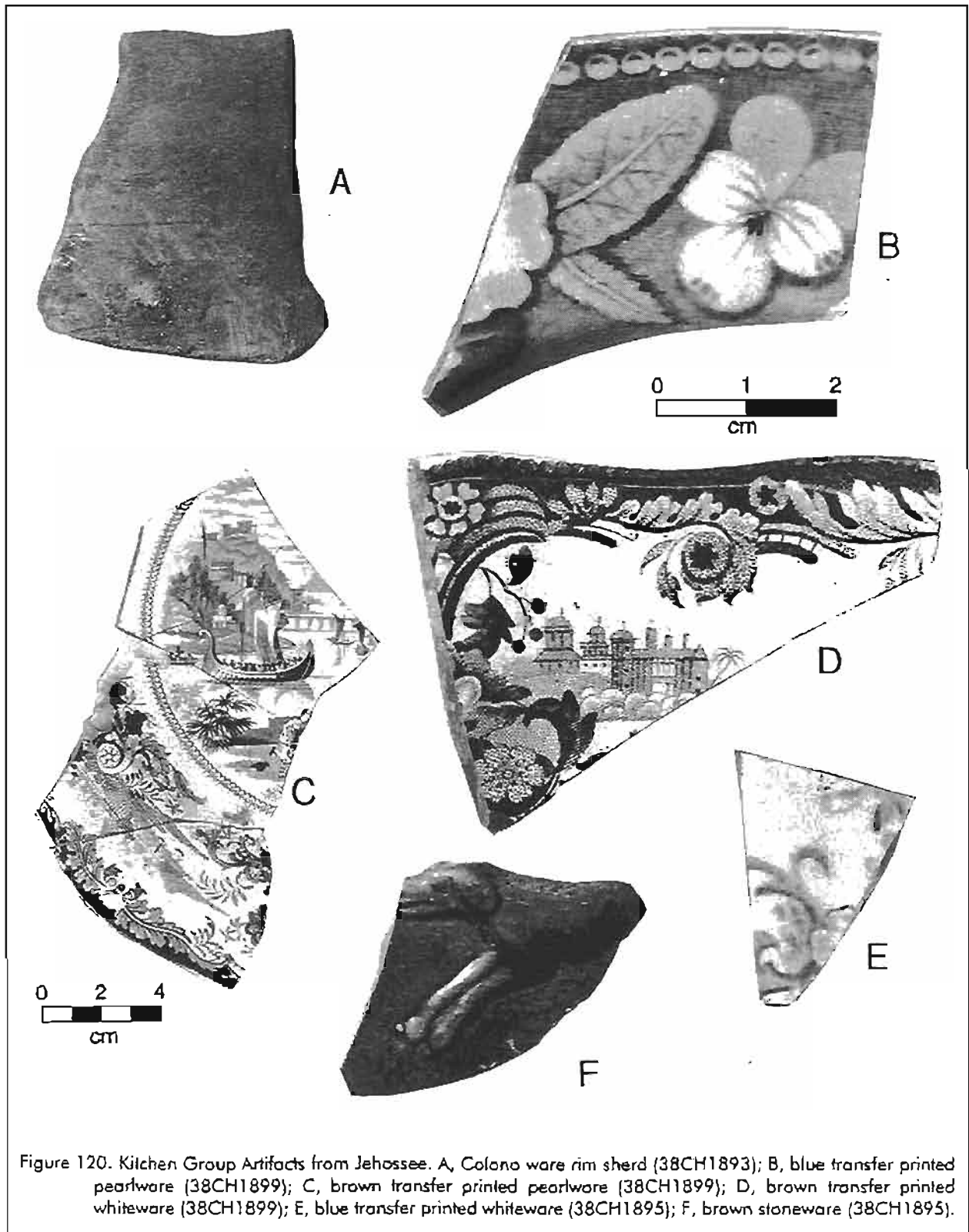


Figure 120. Kitchen Group Artifacts from Jehossee. A, Colono ware rim sherd (38CH1893); B, blue transfer printed pearlware (38CH1899); C, brown transfer printed pearlware (38CH1899); D, brown transfer printed whiteware (38CH1899); E, blue transfer printed whiteware (38CH1895); F, brown stoneware (38CH1895).



Figure 121. Kitchen Group Artifacts from Jehossee. A, bone utensil handle (38CH1899); B, S.C. Dispensary bottle (38CH1899); C, aqua ponel bottle embossed, "R.V. PIERCE, M.D." (38CH1895); D, clear bottle (38CH1895).

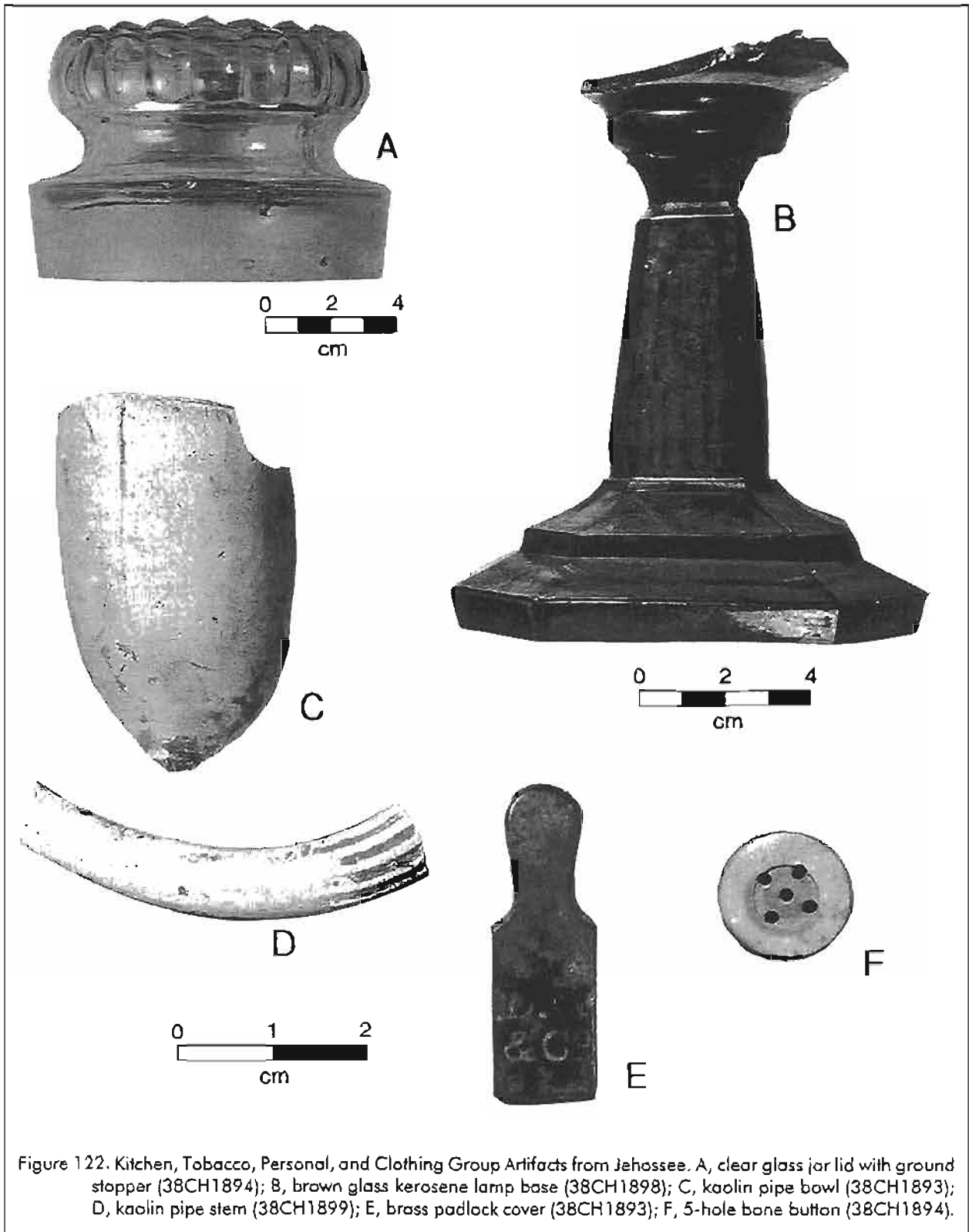


Figure 122. Kitchen, Tobacco, Personal, and Clothing Group Artifacts from Jehossee. A, clear glass jar lid with ground stopper (38CH1894); B, brown glass kerosene lamp base (38CH1898); C, kaolin pipe bowl (38CH1893); D, kaolin pipe stem (38CH1899); E, brass padlock cover (38CH1893); F, 5-hole bone button (38CH1894).

few new sources of information — some of which we have been able to tap and other which still remain to be explored.

For the first time the history of Jehossee is available in something approaching a comprehensive fashion, better allowing the USFWS to begin interpretation of this extraordinary resource. Our study also offers a launching point for future study, itemizing what has been examined, helping other researchers move on to new territory and not be required to again search through the same literature. Where appropriate we have also itemized those resources, such as the Phillips Papers, that we were not able to explore, but which may provide further documentary information.

We have also contacted a number of individuals associated with the island, trying to pull together information that they might possess, filling in the blanks and creating a more coherent twentieth century history. We have found that most of the twentieth century occupants of the island focused on the eighteenth and nineteenth century apex of the island's rice cultivation and relatively little attention was paid to "modern" happenings on the island. This has certainly made a complete history more difficult, but it suggests to us that other lines of research may need to be explored. For example, while our research suggests that I'on Rhett played a relatively minor role in the ownership of Jehossee, we have found that he was, in 1935, a member of the Carolina Plantation Society, listing his address as Jehossee Plantation (Doar 1936:70). Might there be additional information concerning Jehossee in either the papers of the Carolina Plantation Society or do any I'on Rhett papers still exist? Having seemingly exhausted the obvious lines of research, it is time to move onto those lines which are less obvious or which may seem to be less fertile at first glance.

We have spent some effort in these discussions to fulfil our next secondary goal, that of comparing the archaeological observations to the historic documents. Periodically we have referenced historic accounts or, in particular, we

have closely examined the available historic maps of the island to see what information they can contribute. The most valuable, of course, is the 1856-1857 chart of the island, which has proven throughout this study to be highly reliable and very accurate.

The final secondary goal, that of developing management guidance for the USFWS is a major topic of the following recommendation section, although with each site description we have tried to provide a hint of what management actions are considered appropriate.

Historic Overview and Context

Jehossee had a rich and varied ownership, being divided into two tracts for its eighteenth and early nineteenth century history. The core of the island, described as Tract A in this study, was acquired by the executors of Paul Jenys from a Royal Grant in 1742. After 10 years it passed as a moiety to Henry Middleton and John Izard. They sold it in 1764 and 1767 respectively to William Maxwell.

Maxwell held both tracts only nine years before selling them to Charles Drayton, Sr. in 1776. Drayton transferred the island to his son, Charles Drayton, Jr., in 1814. The younger Drayton owned the island until 1823. The Drayton tenure on Jehossee lasted 47 years. The family managed the island as a rice and cotton plantation using slave labor longer than any other owner. It seems reasonable that much of the initial development took place during this period.

We know, for example, that the plantation was developed by at least 1784 based on diary entries for the plantation. We know also that activities were sufficient on the plantation for Drayton to hire overseers for Jehossee. It appears that the island was a source of considerable wealth for the Drayton family and also served to provide some produce and other resources for use at the Drayton's country seat on the Ashley River. We also know that in 1819 Charles Drayton, Sr. has at least 83 African Americans on Jehossee.

By 1823 the island's glamor seems to have worn off and Drayton sold it to Thomas Milliken, apparently a small, but successful, planter in 1820. Not much else is known about his activities on the island, except that in 1830 he sold the island to William Aiken.

Parcel B has an equally complex, and convoluted, history. This portion covers much of the eastern marsh associated with Jehossee, as well the small island to the north, which itself is largely marsh. It was initially a state grant to Samuel Ash in 1786, being held by that family until the death of Ash's son in 1824, when it was divided into two parcels. One portion went to Charles E. Miller, who in 1835 sold it to Samuel G. Barker. The other portion went directly to Samuel G. Barker, who in 1835 sold it to Charles E. Miller. In 1840 William Brisbane, a small planter (who was characterized by his neighbors at The Grove as aspiring to greatness that was never achieved) acquired the first portion, purchasing the second in 1842.

Brisbane created, if it was not already present, a small rice plantation on this low, swampy island. He built a small number of slave dwellings and a main house. He and his wife settled into the lifestyle befitting a rice planter, holding the tract until 1857, when it was sold to Augustus L. Taveau, who held the property for only two years, selling it to William Aiken in 1859. At this point Jehossee reached its largest extent, some 4,000 acres.

Much of the island's publicized history has focused on the ownership of William Aiken, who held the plantation for only about 30 years prior to the Civil War — far less than the 47 year tenure of the Drayton family. There are some valid reasons for this.

First, while the Drayton records are actually more complete, the island was visited by several outsiders during the Aiken ownership, so his name became associated with Jehossee. Second, Aiken was an extraordinarily powerful and wealthy individual and attention is naturally directed toward the rich and powerful. Third, the

island continued to be owned by Aiken's relatives until its eventual sale to the USFWS, providing 100 years of continuity after the Civil War. Another factor is that Jehossee Island was but one of the score of plantation managed by the Drayton's (Kanaski, personal communication 2002).

Aiken's 700 slaves ranks him the second largest holder of enslaved African Americans in South Carolina, just behind the Estate of Lt. Governor J.J. Ward in Georgetown with 1,131 slaves (these, however, were divided between six different plantations). Just behind him was Governor Robert Allston, also of Georgetown, with 631 slaves (Clifton 1985:59; Dusiaberre 1996:391). Moreover, Aiken's 1,500 acres of rice land was almost twice the acreage of the South's next largest rice plantation, James Hamilton Couper's Hopeton in Glynn County, Georgia. Aiken paid the highest wage, \$2,000 a year, to any overseer documented, when most ranged from a few hundred to perhaps a thousand for the most prized. Aiken was certainly an extraordinary planter whose wealth, for the time, might appropriately be considered astronomical (the 1850 value of \$380,000 is \$7,238,000 in 2002 dollars). By 1860 the value was closer to \$418,000 or nearly \$8 million in 2002 dollars. The rate of return on the investment was nearly 10% (far better than most planters examined by Dusiaberre; see Clifton 1985:61). The 1,500,000 pounds of rice raised in 1859 made Aiken the second largest producer of rice in Charleston County.

Clifton spends some considerable effort outlining the physical features of the Jehossee plantation, pointing out that the "facilities . . . were excellent" (Clifton 1985:61). Moreover, Aiken is reported, from several sources, to be a kind and indulgent master. He provided abundant housing (the 1856-1857 map suggests at least 88 double pen structures, providing 176 units, with an occupancy of only 3.98 per unit). Each house was allotted a garden plot. Clothing and food allowances were above average. There were several hospitals. Animals were used to break the soil.

It is appropriate to briefly look at one physical aspect of the plantation landscape — the cisterns used to collect water. While necessary for potable water in polluted urban settings such as Charleston or Savannah, cisterns seem to be rare on rural plantations. In fact, we know of only the cistern at the Vanderhorst Plantation house on Kiawah. Yet on Jehossee they are found not only at the main house, but also at the overseer's, at the house servant's quarters, and at three locations on the slave settlement for a total (approximate) collection of 39,298 gallons. If only the three directly associated with slave settlements are considered, there was a capacity of 12,598 gallons. Assuming 700 individuals and 1 gallon per person per day, the cistern supply would last about 18 days, or just over two weeks, assuming no use for laundry, cooking, or animals.

In most respects the cisterns in urban and rural settings are very similar. While varying in shape and size, they are often rectangular and barrel vaulted. They are consistently parged and well maintained. The only obvious difference between the cisterns in urban and rural settings seems to be that in the urban setting, where land was at a premium, they were often constructed under structures. On Jehossee they were never built within or under structures, but always beside them. In this sense the Kiawah example is an anomaly, since it was incorporated into the porch of the structure.

The point is that Jehossee was not a "typical" rice plantation, in terms of size, wealth, number of slaves, operation, or presumably the treatment of the enslaved African Americans. It might, in fact, be best to describe Jehossee as an anomaly — especially in light of the more realistic view of rice plantations as being chanel houses for the enslaved.

This presumed context must be understood by researchers. But, just as Jehossee may be different, that difference is still a point worthy of investigation and examination. Was it *really* different, or did Aiken simply have good press?

From a practical standpoint, this means

that archaeological patterns and interpretations on Jehossee must be compared and contrasted with those from other rice plantations. Are there differences and, if so, how might those differences be interpreted?

Research Questions

If we can't call Jehossee typical, how then might we frame research questions appropriate for the plantation?

Beginning with the historical documentation, we have tried to point out areas where there may still be important information available — areas such as the Phillips papers (the largest collection is at Yale University's Sterling Memorial Library, Manuscripts and Archives Division, Manuscript Group Number 397), or perhaps looking for other Rhet family documents relating to Jehossee. There are a large quantity of Drayton records and we are not certain that all of those materials have been thoroughly examined for information pertinent to Jehossee Island.

Are there, for example, documents which might help us to better understand his operation of the island? How many slaves were present? What construction took place during this period? Where were the different activity areas of the plantation? What was the importance of cotton and rice? Can detailed examination of the Drayton accounts provide information on social questions, perhaps relating to the isolation of the island and whether there is any documentary evidence that the perceived isolation affected the lifeways of African Americans?

There are several "missing" plats which might be found with more concentrated efforts and there is the Gunby newspaper article concerning the burning of the main house that might provide other critical details concerning the main settlement. There is also the set of note cards, now misplaced, on which were drawn the layout of the main house (William R. Judd, personal communication 2002).

Critical research, beyond explorative

questions concerning the plantation layout and landscape, might focus on issues relating to the economic activities of the various owners. In particular, we have virtually no information on the activities of the small planters and their short-term ownership of Jehossee. What additional can be said concerning plantation activities and the growth of rice cultivation? This investigation would require the careful examination of other documents associated with the various owners, such as bills of sales, wills and inventories, and newspaper accounts, in an effort to better reconstruct their financial lives.

There are also a variety of research questions which may be approached using the archaeological resources on the island.

There are at least three African American settlements on the island (38CH1893, 1895, and 1897). These appear to span the period from the eighteenth century Drayton tenure through the late nineteenth century Aiken efforts to revitalize rice.

Investigations at what appears to be the earliest settlement, 38CH1897, may be able to address a broad range of significant research issues, including the importance of Colono ware ceramics (which seem to decline in importance to the south of a Charleston core) and nature of the structures (in general ephemeral and poorly constructed during the eighteenth century). This settlement also provides an opportunity to look for evidence of power and resistance — which may be reflected in artifacts reflecting African magic, religion, and spiritual beliefs (see, for example, Wilkie 1997 or Trinkley and Hacker 1999a). Moreover, there are relatively few eighteenth century slave settlements documented and even fewer associated with rice cultivation.

Site 38CH1893 and much of 38CH1895 represents the development of slavery on Jehossee Island under Aiken. Investigation of these settlements has the potential to address a range of significant research questions. The sites offer an exceptional opportunity to document a very large number of structures on a single plantation under

a single owner. By comparing and contrasting the archaeological footprints it should be possible to determine the acceptable variability in size and construction features. By comparing and contrasting the collections (examining artifact patterns and perhaps even ceramic indices), it may be possible to address the distribution of material goods, such as ceramics. It may be possible to explore the slaves' access to various markets and how this affected their possessions. Given the number of structures, it may be possible to dramatically refine our understanding of the material or wealth variability present in a single slave community, perhaps even identifying structures occupied by "special" slaves (such as drivers).

The ability to examine a very large sample of African Americans living under one very wealthy owner also allows us to better contrast their lifestyle with slaves owned by planters of more modest means. This should help address the question of how slaves were affected by their masters' economic well-being.

Site 38CH1895 also appears to contain several slave hospitals — a site type for which there is little architectural or archaeological comparative information. Excavations in the hospital area may result in the development of an artifact pattern which helps to identify similar features at other plantations. Excavations might also provide valuable clues to how effectively Aiken dealt with disease on Jehossee Island, helping to compare and contrast the island to other rice plantations along the Savannah River.

While much is known of African American lifeways on postbellum cotton plantations, relatively little is known about life on rice plantations. Investigation of individual house sites at 38CH1895, combined with oral history, has the potential to dramatically expand our understanding. Topics of access, participation in a market economy, refuse disposal, health, and diet may all be addressed, given what we have seen thus far in the archaeological record.

There are also at least three industrial sites

on the island (38CH1891, 1897, and 1904). While 38CH1891 has been heavily damaged by erosion, there is the potential for a fourth site which might compare directly to 38CH1897. Research at these sites has the potential to help clarify the historical accounts, develop a site plan for the structures present, and begin to unravel some of the questions concerning how the rice processing mechanisms actually operated.

Site 38CH1904, found on waterlogged soils, may also retain well-preserved plant and organic materials which might be of assistance in reconstructing the activities that took place.

The main settlement, 38CH1898, reveals expansion of a relatively modest structure into a much larger mansion. Archaeological excavation focusing on construction features may be able to provide more realistic dates for the building episodes.

Excavations at 38CH1898 also have the potential to reveal much more about the lifestyle of Aiken on the island. If trash deposits associated with the main house and kitchen can be identified and explored, it may be possible to address the issue of whether Aiken resided "modestly" or if he displayed his wealth as many planter's did. Examination of temporal changes can also help resolve questions raised previously about whether the main house assemblage can address changes in Aiken's display of wealth on Jehossee Island.

One interesting avenue of research is to combine additional documentary research with more careful analysis of the main settlement landscape, perhaps incorporating pollen studies in an effort to identify plantings such as box and roses. This might provide us with a better understanding of how Aiken arranged the settlement to reflect his power, world view, and concept of self-worth. While there are numerous historic accounts of plantation gardens (see, for example, Lockwood 1934), there are relatively few archaeological studies (notable are Byro 1996, Kelso and Most 1990, and Trinkley et al. 1992).

The burial grounds, 38CH1896, were

almost certainly used by African Americans during the antebellum. Even without excavations, the cemetery can provide important information. For example, non-destructive study using a penetrometer can determine the number of graves present. This, using our current population estimates, can help refine information on the morbidity of the plantation. More sophisticated research, perhaps using ground penetrating radar, may provide clues on the various episodes of use in the cemetery and perhaps even the presence of unusual or unexpected features pointing to Africanisms.

Eligibility

We have previously made recommendations concerning the eligibility of individual sites, based on the data sets present at each site, the integrity of those data sets, and their ability to address a broad range of the significant research questions, many of which have been posed here.

After completing this study and carefully reviewing the historic research, archaeological findings, and architectural data, as well as comparing this plantation with other resources in the South Carolina low country, we are convinced that the **entire island is eligible for the National Register of Historic Places as a historic district.**

Two similarly large rice plantations in Georgetown County, Hobcaw Barony (15,680 acres) and Friendfield (3,305 acres), have been accepted to the National Register as districts. Little, if any, archaeology had been conducted on either, and they were not listed under Criterion D (information potential) in spite of the acknowledged presence of below ground historic resources. Both were nominated under Criteria A (association with historic events) and C (distinctive design features), with Hobcaw additionally under Criterion B (association with important persons). Like the Georgetown County Rice Planters Multiple Resource Nomination, these include ricefields with their banks, dikes, and canal systems as above ground resources significant in the Area of Agriculture and Engineering. It is also important to

note that where the overall construction retains integrity, individual trunks and gates that have been replaced over time are also considered altered elements — not incompatible intrusions.

Because clear boundaries had been maintained during and after the period of significance, these Georgetown properties are listed as entire tracts. There are no intrusive or incompatible elements and the contributing resources, some of which were individually eligible, made up a cohesive whole. We should explain that multiple property nominations are used when the contributing resources are separated by incompatible properties.

In the case of Jehossee we have consistent boundaries that have remained unaltered since the antebellum and that were formulated during the early colonial period. The island suffers no significant intrusive elements and even the “modern” gates and trunks used for water control in wildlife areas are consistent in scale and placement with those used in rice cultivation. The canals and dikes have been maintained and are all in their original locations. When current aerial photographs of the property (for example, Figure 119) are compared to historic maps, charts, and plats (for example, Figure 17) one of the most striking features is that individual canals, fields, and even road systems have remained virtually changed for the past 150 years. Hence, while the island’s dike/canal/trunk system has been altered and in some cases has degraded over time, it has not been radically changed and is still a compatible feature which helps retain the feel of the property.

The island contains both standing architectural ruins (such as the various chimneys at 38CH1895, the industrial complex at 38CH1897, and the various main house complex features at 38CH1899) and the standing overseer’s house as contributing architectural properties. The archaeological sites, many associated with standing ruins, offer another significant component to the district.

We also believe that Jehossee should be

considered potentially eligible as a rural historic landscape. Defined as a “geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features,” (McClelland et al. n.d.: 1-2) rural historic landscapes typically reflect the daily activities of groups that were significant in history. Rice cultivation — and the landscape which it created — is among the most significant in South Carolina. And it is likely to be nowhere better preserved than on an isolated, rural island such as Jehossee.

While landscapes are naturally evolving and never stagnant, Jehossee contains substantial areas of vegetation, open space, and natural features that embody the distinctive characteristics of low country rice cultivation. These characteristics may be better understood through a brief review of the 11 landscape characteristics discussed by McClelland et al. (n.d.:4-6).

The first four are processes may best reflect the rice plantation theme. *Land Use and Activities* include the conversion of the Jehossee Island swamp to diked fields capable of supporting rice cultivation, along with the particular pattern of settlement in close proximity to these fields. It also includes the geographic isolation of Jehossee Island, as well as features such as the absence of fresh water (which necessitated the development of cisterns). All of the features are based on the economic base of rice cultivation. Even the changing land use on Jehossee Island, from rice cultivation to waterfowl hunting to wildlife management, is part of the natural evolution that reveals innovative, yet compatible, adaptations of historic practices (McClelland et al. n.d.:4).

The island reveals a clear *Pattern of Spatial Organization*, with a focus on the rice fields, their size, the interconnecting canals which allowed movement of slaves and crop, and the location of island settlements. While vegetation changed over time, the location and nature of

these features has remained constant and is intimately associated with the economic needs of rice cultivation.

A third process is the *Response to the Natural Environment*. Rice depended on the swamp environment as well as the ability of the owner's slaves to dike the boundaries and convert them from forests to fields. Rice was also closely tied to another aspect of the environment — the dramatically unpredictable tropical storms. On Jehossee Island another environmental feature affecting development was the shortage of wood to power the island's steam threshing mills.

The final process is identified by McClelland et al. as *Cultural Traditions*. There can be no doubt that rice cultivation is inexorably tied to slavery. Knowledge of rice cultivation has been attributed to African slaves and the prevailing view at the time was that only blacks could withstand the rigors of the rice fields. Cultural traditions also include the structure of the slave community, the arrangement of structures, the focus on water transport, and even the ways the land was worked using the task system (for a broad overview of the uniqueness of the rice plantation's cultural traditions, see Morgan 1998).

The remaining seven features are characterized as "components" by McClelland et al. (n.d.) and are physical features that may characterize a particular landscape. The *circulation networks* characteristic of rice plantations and their landscape include the canals, the roads on dikes, causeways, landings, and even the reliance on water transport. The *boundary demarcations*, at least for Jehossee Island, are the physical limits of the island, frequently defined by the remnants of dikes and various water control features. *Vegetation related to land use* includes the still well defined fields on Jehossee Island, as well as the oak avenue to the main house. Clearly vegetation is not static and change with time. There has also been managed change on Jehossee, revealing efforts to make the island profitable for waterfowl hunting and, more recently, to help the island serve as a unique wildlife refuge. *Buildings, structures, and objects* include a wide range of

ruins, as well as the Overseer's House. It also includes features such as wells and cisterns, the cemetery, and even the roads and dikes on the island. McClelland et al. (n.d.:6) also note that *clusters* are an important aspect of the landscape. These are the groupings of buildings, such as the several slave settlements, the industrial complexes, or the main settlement. At Jehossee many of these components are intimately associated with the presence of *archaeological sites* — which have been previously documented. Finally, there are the *small-scale elements* that add to the feel of the historic setting. Examples of these features identified during this study include the bridge remains linking Jehossee with the Brisbane plantation (38CH1904) or the eroded water control device (38CH1900). Collectively they form dike remnants (such as 38CH1901).

The landscape on Jehossee maintains a high level of integrity in terms of location, design, setting, materials, feeling, and association. There even remains evidence of workmanship through the presence of standing structures and ruins, as well as roads and oak avenues. There is no new construction or incompatible land use, such as new roads, residential construction, refuse dumps, or bridge access. And the boundaries for the rural landscape are as easily defined as they are for the historic district — they comprise the entire island.

We believe that Jehossee Island is eligible under Criteria A, B, C, and D at a State level of significance.

Criterion A, or historic event, incorporates the importance of Jehossee as the South's largest rice plantation and the home of the largest number of slaves on one plantation in South Carolina. It also includes recognition of Jehossee as the second wealthiest rice plantation in Charleston County. In all respects Jehossee was the pinnacle of South Carolina's rice production and the island represents the pattern of events and activities which made rice important to the planter elite and the economy of South Carolina. It also represents South Carolina inexorable ties to the enslavement of African Americans.

Criterion B, or association with a person, is based on the plantation's antebellum and postbellum ownership by William Aiken. Aiken achieved a variety of political offices during his lifetime and was recognized as one of the wealthiest South Carolinians of the day. He is also recognized as a voice of moderation in the rush to dissolve the Union. His power, wealth, and prestige are documented by his Charleston residence, the Aiken-Rhett House, which is currently listed on the National Register. Jehossee, however, represents Aiken's agricultural contributions and his prominence among the region's rice producers. It represents how Aiken perceived his role as planter and how he organized his landscape to reflect his world view.

Criterion C, or design and construction, reflects the significance of Jehossee in the context of the standing architecture of the overseer's house, the landscape of the plantation, and the engineering features associated with rice cultivation. It is also reflected even in some of the standing ruins, such as the rice mill, which was sufficiently unusual to attract the attention of period observers. Not only are individual sites eligible under Criterion C, but in the context of a district, resources which lack individual distinction may be eligible under this criterion as a comprehensive entity.

Finally, Criterion D, or information potential, is based on the broad range of significant research questions regarding antebellum and postbellum rice plantations that Jehossee's below ground resources may address.

The recognition of Jehossee, as an island, being eligible for inclusion on the National Register clearly leads to questions concerning how such a resource is appropriately managed within the framework of the USFWS's defined mandates for the preservation, protection, and enhancement of a nationally significant wildlife ecosystem. We hope to offer some suggestions in the following sections

Recommendations for Historic Architecture

All work on the Overseer's House should adhere to *The Secretary of the Interior's Standards and Illustrated Guidelines for Rehabilitation*, available from the Superintendent of Documents (stock number 0240-005-01091-2). In addition, Building Conservation International offers excellent preservation advice, including:

- There are few panaceas in building. Nothing lasts forever, especially if laced with cement.
- The easy answer is often neither the right one nor the cheapest one.
- A quality job will be economical and save time and hassle in the long run.
- There are no hard-and-fast rules. A situation must be judged on its merits.

Another survey of preservation quality work is provided by Gersil Newmark Kay (1991) is *Mechanical and Electrical Systems for Historic Buildings*. While no electrical or mechanical systems are being proposed for the structure, the authors offer good preservation guidance that may be useful at a variety of levels.

The Merrick and Company study of the Overseer's House recommend "a historic assessment . . . to correctly ascertain the historic and cultural value of his site" (Bouza and Blackwell 2002:4.7). The current investigation begins to fulfill this recommendation and three leading local authorities concur with us that the structure is eligible for inclusion and the National Register and worthy of preservation (Ms. Sarah Fick, Historic Charleston Foundation, and Moby Marks of Richard Marks Restoration).

Based on this the most prudent, and cost effective approach is the implementation of

Merrick and Company option 1: stabilize and mothball the structure per Secretary of Interior Standards. This option would help ensure the long-term preservation of the structure by "making the building dry inside and slow[ing] further deterioration" (Bouzo and Blackwell 2002:4.6). The projected cost would be nearly \$272,000 (Bouzo and Blackwell 2002:10.1).

To accomplish this goal, Bouzo and Blackwell recommend:

1. Repair or reconstruct collapsed foundation brick piers (essential in order to appropriately support the structure),
2. Re-level the structure (which is part of the foundation repairs and may require jacking and temporary supports)
3. Re-align girders and exterior walls to remedy displacement and bowing of structural elements (again, this is often part of foundation repairs),
4. Repair and or replace deteriorated structural framing members (incorporated in this may be structural pest control practices designed to minimize future damage),
5. Re-mount on the refurbished foundation piers,
6. More detailed examination of the exterior bearing walls with whatever repair is necessary,
7. Replace the existing metal roof because of corrosion,
8. Remove the vinyl siding and repair, replace, refinish, and repaint the lap siding,
9. Replace inoperable windows and doors with "period accurate replacements,"
10. Remove the unstable front porch,

11. Remove all interior finishes that are currently falling.

Emergency repairs are generally considered to be those that, if action is not taken, the building might continue to deteriorate until repair would no longer be feasible on either practical or financial grounds. Michell (1988:17) observes that, "the danger of specifying temporary repairs or minimum standards is that by default they may gradually be thought of as permanent repairs and become acceptable." Park, however, notes that "mothballing" is not only an effective means to temporarily protect a building from the weather and secure it from vandalism, but also protects the structure "while raising money for a preservation, rehabilitation or restoration project" and may even serve to protect the structure from demolition (Park 1993:1). It is often critical — as in the case of the Jehossee structure — that decay be arrested when nothing better is immediately possible.

Recommendations 1-5 are likely to be generally agreed upon as necessary emergency repairs, ensuring the structural stability of the overseer's house. Likewise, Recommendation 6 is prudent, in order to determine more precisely what is causing the outward buckling of the walls. It may be necessary to do this before any effort is made to repair the foundations and level the structure. Or it may be adequate to monitor the extent of bulging. In a question of this nature it would be best to consult with a structural engineer who specializes in historic structures (see also Park 1993:4).

An issue not directly addressed by Bouzo and Blackwell (2002) is pest control. It would be helpful to have the structure inspected by a pest control firm specializing in historic structures to determine if the termite and wood boring pest damage is on-going or old. If ongoing a significant component of the stabilization program should include looking at treatment options. Today these include not only conventional termiticides, but also termite baits and use of borates. Park notes that, in addition, chimney flues should be

closed off and other access points should be “screened with bug mesh or heavy duty wire, depending on the type of pest being controlled” (Park 1993:4).

Replacement of the roof is likewise a reasonable approach in order to ensure that the building stays dry (Sweetser 1978:1). On the other hand, given the \$13,545 cost of reroofing, the USFWS may wish to explore other options, such as refurbishing the existing roof. If a new roof is deemed appropriate, it may not be necessary to insulate it.

While removing the vinyl siding might well be a sound decision, it may not be immediately necessary. Myers and Hume (1984:5) observe that the real risk of synthetic siding is not that it causes decay, but that it hides problems, allowing damage to go unchecked. The most significant source of damage is hidden sources of water entry, which may be largely corrected by roofing repairs. This isn't to say that removal of the synthetic siding is a bad idea, but rather that given tight budgets, this may be the highest priority, with other mothballing tasks being more immediately important (deferring the siding removal would reduce the mothballing budget by over \$30,000).

Replacing deteriorated siding may cause other concerns. Myers and Hume comment that, “replacing historic wood siding with new wood . . . could severely diminish the unique aspects of historic materials” (Myers and Hume 1984:3). Such replacements must be very sensitive to the width of the clapboards, shadow reveals, and the details around doors and windows (Myers and Hume 1984:4).

Likely to be most controversial is the recommendation to replace windows and doors as part of a mothballing project. In general preservationists recommend against replacing building components at this particular stage. Park notes, for example, “to the greatest extent possible, these weatherization efforts should not harm historic materials” (Park 1993:4). Of course, some of the windows present are likely twentieth century replacements. On the other hand, Park also

cautions that, “the project budget may not allow deteriorated features to be fully repaired or replaced in-kind” (Park 1993:4) — which is likely the situation facing the USFWS. An alternative is simply to cover these openings. Park notes that this approach is not only cost-effective, but also serves the added benefit of providing additional security:

Mothballed buildings are usually boarded up, particularly on the first floor and basement, to protect fragile glass windows from breaking and to reinforce entry points. Infill materials for closing doors and window openings include plywood, corrugated panels, metal grates, chain fencing, metal grills, and cinder or cement blocks. The method of installation should not result in the destruction of the opening and all associated sash, doors, and frames should be protected or stored for future reuse. Generally exterior doors are reinforced and provided with strong locks, but if weak historic doors would be damaged or disfigured by adding reinforcement or new locks, they may be removed temporarily and replaced with secure modern doors. . . . If plywood panels are installed over door [or window] openings, they should be screwed in place, as opposed to nailed, to avoid crowbar damage each time the panel is removed. This also reduces pounding vibrations from hammers and eliminates new nail holes each time the panel is replaced (Park 1993:6).

Park also explains how, once the exterior is secured from weather, to ensure that the building continues to have adequate ventilation, noting that without such ventilation, “humidity may rise to unsafe levels, and mold, rot, and insect infestation are likely to thrive (Park 1993:8). Use of

passive louvering amounting to 30% of the openings is reported to be sufficient (Park 1993:9). It seems likely that this approach would save much of the \$10,540 proposed for door and window work by Bouza and Blackwell (2002:10.1).

A final issue likely to cause concern among preservationists is the recommendation to remove interior finishes. McDonald comments that, original lime and gypsum plaster is part of the building's historic fabric . . . [and] evoke the presence of American's earlier craftsmen. . . . plaster walls and ceilings contribute to the historic character of the interior and should be left in place and repaired if at all possible" (McDonald 1989:2). While repair is likely beyond the means of any mothballing program, plaster removal is perhaps premature — and would remove the proposed budget by about \$2,000 (Bouza and Blackwell 2002:10.1).

An issue not addressed by Bouza and Blackwell (2002) is how to secure the mothballed structure. The USFWS has pointed out that any recommendations concerning security must be practical, given the isolation of the island. Park seems to be thinking of such situations:

Securing the building from catastrophic destruction from fire, lightning, or arson will require additional security devices [beyond door and window coverings previously discussed]. Lightning rods properly grounded should be a first consideration if the building is in an area susceptible to lightning storms. A high security fence should also be installed if the property cannot be monitored closely. These interventions do not require a power source for operation (Park 1993:8).

Maintenance

Park explains that while a mothballing program can be successful in stabilizing a property

and slowing the natural progression of deterioration, "natural disasters, storms, undetected leaks, and unwanted intrusion can still occur" (Park 1993:11). She recommends a regular schedule for surveillance, maintenance, and monitoring to ensure that the structure does not sustain damage.

Bouza and Blackwell (2002:15.1) also provide a preventative maintenance chart for the structure, although some components, such as those dealing with mechanical and electrical systems seem inappropriate for the overseer's house. We have adapted recommendations made by Park and believe that they may help the USFWS to cost-effectively protect this unique structure (Table 30). Another excellent source is J. Henry Chamber's *Cyclical Maintenance for Historic Buildings* which emphasizes daily, weekly, monthly, quarterly, semiannual, annual, and quinquennial activities.

Disaster Planning and Recovery

It is likely that the USFWS already has a program of risk evaluation, hazard mitigation, and emergency preparedness for Jehossee Island. It more than likely covers such concerns as wildfire and hurricanes — two threats which are certainly of concern to any environmental treasure such as the ACE Basin.

If the current plans do not include the Overseer's House, this structure should be incorporated. It is likely that the actions which can be taken to help ensure the protection of this resource are already being taken and this step would only help to formalize the process.

For example, the draft Jehossee Island Habitat Management Plan specifies that wildfires are of concern, especially since the island is so isolated and the USFWS recognizes the lack of fire presuppression. It does indicate, however, that "a fire line will be maintained around the overseers house as a precaution against wildfire" (Anonymous 1998:10). This is a good protective measure and could be combined with regular mowing or bush hogging.

CONCLUSIONS AND RECOMMENDATIONS

Table 30.
Recommended Maintenance for Mothballed Structures (adapted from Park 1993:11)

	periodic	monthly	quarterly	semi-annually	annually
regular surveillance	✓				
check attic after storms	✓				
check entrances		✓			
check windows		✓			
mow as required		✓			
check for vandalism		✓			
check interior for "musty" air			✓		
check interior for moisture			✓		
check for evidence of pest			✓		
site clean-up; prune and trim				✓	
gutter and downspout check				✓	
check crawlspace for pests				✓	
termite and pest				✓	
check roof for damage or leaks					✓
exterior materials spot repair					✓
remove bird nests, droppings					✓
check and update building file					✓

recommended approach is to salvage as much as possible and, if possible, to leave the materials in place. Nothing should be thrown away until its possible use is fully known. Woodwork and ornamental plaster is often heavily damaged by either water or fire. All intact woodwork should be retained and in cases of extensive damage samples of every type should be retained for replication. Flooring should be left in place for evaluation by an architectural conservator. The wall-floor edge is very important since it often provides a "footprint" for reproducing features such as wainscoting and built-in furnishings. Clean-up should consist only of non-chemical, non-abrasive methods. No detergents or proprietary cleaning products should be used on unpainted wood, plaster, or metal. But most

Likewise, mothballing the house (with the covering of doors and windows, disconnection of the propane tanks, and so forth) will reduce the opportunity for vandalism and perhaps even arson.

important, the document stresses, is the need involve an architectural conservator immediately after a disaster to ensure that important architectural details are not lost in the recovery.

The USFWS may also be able, with little or no cost, to incorporate some additional guidance concerning historic properties in their recovery plans. For example, information could be included on local structural engineers and preservation contractors who could be quickly called upon should the need arise.

Recommendations for Landscape Features

Just as the standing structures require maintenance and disaster recovery plans, so too do landscape features.

Vegetation Issues

One very good emergency salvage procedure checklist has been developed by Caroline Alderson, General Service Administration, National Capital Region, Historic Preservation. For noncombustible, waterproof items the

Since ca. 1910 the island's vegetation has gradually closed in on once open areas. While natural, as fields have converted to second growth and as open hardwoods have begun to develop dense understory vegetation, there has been a

palpable change in the feel of the landscape. This has been far more dramatic than the loss of ricefields and their replacement with marsh grass — at least in those cases the wetland nature has been maintained.

Significant archaeological resources are found primarily in two vegetative areas: early successional field/pasture and mixed hardwood and pine. It would be "ideal" to recommend that the vicinity of the sites be "opened up." This would help restore the historic feel, dramatically reduce maintenance issues associated with the sites, and would probably help reduce the potential for looting. The issue, however, is not that simple. As has been previously explained, Jehossee is part of a nationally, even internationally, significant ecosystem and the USFWS is mandated to manage the resource for a wide variety of wildlife.

As an example, portions of 38CH1894, 38CH1897, and 38CH1898 are found on Units J5 and J18, both identified as early successional field/pasture. These two units account for 40 of the 58 acres of this vegetation on the island and the sites probably account for about 35 of the 40 acres.

Currently management consists of vegetation setback every 3 to 5 years using prescribed burns and at times roller chopping to maintain the fields so they support priority species, such as the painted bunting.

The mixed hardwood and pine areas are far more common on Jehossee, accounting for 480 acres. Found in these areas are portions of sites 38CH1893 (Unit J6a), 38CH1895 (Unit J3), and 38CH1899 (Unit J4), which together account for probably less than 30 acres. From an ecological perspective, the conversion of these 30 acres to early successional field/pasture might be acceptable, or even beneficial.

But there is another issue which must be considered — the ability of the current staff and budget to accomplish such tasks. While funding and staffing packages have been submitted to alleviate these problems, at the present time there

is only one maintenance position for the entire refuge (Anonymous 1998:10).

Consequently, it seems unlikely that any major vegetative modifications will be immediately possible. Our recommendations, therefore, focus on how the USFWS can more realistically protect sensitive sites from vegetation damage.

Of greatest concern are the architectural features which are being adversely affected by vegetation in two primary ways. First, tree roots erode mortar joints and displace bricks. Second, trees on or adjacent to architectural features cause heavy damage when toppled by storm or disease. As a result, we offer two recommendations for those areas with standing architectural ruins, such as the rice mill chimney (38CH1897), cisterns (38CH1894, 38CH1895, and 38CH1899), or billiard room chimney (38CH1899):

- All vegetation should be removed from the features themselves. To accomplish this safely, the vegetation should be cut by hand and the stump painted with an appropriate herbicide meeting USFWS requirements.
- All vegetation capable of falling on the features should be hand cut, removed by hand, and mulched off-site. This would open small pockets, perhaps only 50 to 75 feet in diameter around these features and would reduce the likelihood of trees falling on the features during a hurricane or other storm. It may be that the open areas could be managed in a manner making them useful to the USFWS program for neo-tropical migrants.

Disaster planning and recovery practices recognize that often conventional "recovery" efforts cause as much or more damage than the disaster. A clear plan can guard against further damage during clean-up efforts (for a brief review of these issues see Morgan 1993). For example, after a hurricane the soils should be dry before downed vegetation is mechanically removed. Even on dry soils only rubber tracked vehicles should be used. If skid trails are necessary they should not be allowed to cross landscape features. All clearing should be done using the least intrusive methods

possible — with consideration given to hand removal and the avoidance of any mechanized equipment in sensitive areas. All of these are likely practices currently incorporated in USFWS practices and they may only need to be formalized in the draft habitat management plan.

Live Oaks

Jehossee Island contains two extraordinary live oak avenues leading to the main house (38CH1899). They were pointed by to us by Historic Charleston Foundation as potentially being in fragile condition. They are such an integral component of the historic landscape that the USFWS may wish to contract with a licensed arborist who specializes in historic trees. Such an individual can provide a thorough assessment of the oaks, and their long-term needs and care.

The Island Roads and Dikes

Other features which contribute to the “feel” of the island — as well as to the USFWS mission of wildlife preservation, protection, and enhancement — are the roads and dikes on Jehossee Island. Some of these roads, however, are in deteriorating condition because of the shortage of maintenance personnel and funds at the Refuge. Some roadside ditches are clogged and this may be affecting road drainage. These problems, coupled with a large feral pig population, are causing erosion, rutting, and damage.

It seems reasonable that the most critical problems, such as the one area where the road and dike are being undercut by erosion, should be addressed first. It may, however, be helpful to begin a periodic mile-by-mile assessment of the roads to help gauge those areas where repair is critical and those where maintenance can be deferred without significant additional damage.

The island’s pig population is threatening the landscape and control measures, already underway, need to be continued to reduce, if not totally eliminate, their presence on the island.

Management Actions for Archaeological Sites

General Recommendations

One of the most significant actions which the Refuge can take to help ensure the long-term preservation of the island’s unique cultural resources is to complete the current draft habitat management plan (Anonymous 1998), incorporating information made more readily available by this study. This will help provide a firm foundation for the consideration of cultural resources in the Comprehensive Conservation Plan (CCP). This report and the accompanying maps of site locations will provide critical information for integration into the CCP.

A second critical goal is the nomination of the island to the National Register as a historic district. The nomination of the island will help solidify the importance of the resource in the mind of the public and those responsible for funding the operations of the ACE Basin National Wildlife Refuge. It will also help guide future management decisions. The data necessary for the completion of such a nomination is available in this study and based on conversations with preservationists familiar with the district nomination process and the requirements of the SC State Historic Preservation Office, no additional research should be necessary.

A third goal should be further enhancement of USFWS efforts to protect the Jehossee Island resources from looters, metal detector enthusiasts, and other collectors (see Hicks 1997 for additional information). Relics have become valuable commodities with an active, and often very open, market. Some buttons will easily bring \$200 and items associated with the Civil War are always in demand. The looting of Jehossee’s cultural resources involves not only trespass, but also destruction of federal property.

Thus far the USFWS has done an admirable job protecting this isolated island with minimal staff. It is fortunate that many of the current USFWS staff have law enforcement powers.

If they have not yet received cultural resources law enforcement training, this opportunity should be scheduled. The Federal Law Enforcement Training Center (FLETC), in conjunction with the U.S. Forest Service, the Bureau of Land Management, and the National Park Service, have developed a five day Archaeological Resources Protecting Training (ARPTP) class. The Department of Justice and the National Park Service also provide several other classes, including the "Overview of Heritage Resources Law." A review of additional classes available is provided by McAllister (2002).

A fourth goal is the interpretation of the unique history of Jehossee Island for both staff and visitors. We are sensitive to the fact that Jehossee is a nationally significant wildlife ecosystem and the USFWS has a variety of responsibilities for the protection and enhancement of those resources. In other words, the island is not a historical park. In addition, some consideration must be given to whether it is appropriate (especially at the current staffing levels) to allow public access to the island. Nevertheless, the significance of the island's historical resources cannot be ignored. Interpretation of these resources for the staff, the occasional visitor, and those specifically interested in its history will ensure that the public has access to that history and will also promote a greater awareness of its significance to South Carolina.

Even with limited funds, it may be possible to enhance the existing exhibits at The Grove to include more on the historic significance of Jehossee. It may even be possible to develop a public brochure and/or web page that provides this information. We understand that some may argue that acquainting the public with the resources will only result in a greater potential for looting. We acknowledge that balancing the public's right to know their history with the need to protect that history is difficult. We believe, however, that those inclined to loot archaeological resources are already well aware of Jehossee. Education may, in fact, help reduce looting by working to make its effect on the public's resources better understood.

Further Research

All of the sites recommended eligible for inclusion on the National Register present exceptional research opportunities. Yet we understand that the USFWS has a myriad of responsibilities and funding for such work is likely not immediately available. There are, however, several sites on the island which warrant additional attention to help ensure their long-term preservation.

The boundaries for the Jehossee Island African American cemetery (**38CH1896**) are not well documented. In particular, the western extent of the site is uncertain. This may cause problems for future land management activities. As a result, it may be prudent to better determine those boundaries as soon as practical.

There are a variety of geophysical techniques which could be used to help identify graves and determine the boundaries of the cemetery. Perhaps the simplest of all techniques is the visual inspection of the cemetery. Under oblique or raking light it is often possible to observe a number of depressions representing sunken grave shafts. As the coffin and human remains decompose the ground sinks. In older cemeteries, where there isn't a constant maintenance program to fill these depressions, they provide clear evidence of previous burials. These depressions can usually be confirmed as graves through an examination of the consistency of their magnetic orientation (with graves usually oriented roughly east-west). This visual inspection may be added by other grave yard features, such as seemingly insignificant rocks or plantings. This technique, however, is likely to be unsatisfactory at the Jehossee cemetery since many of the graves are likely very old (with the depressions having been filled in with leaves and humic soil). The dense forest also makes visual determinations more difficult.

Almost as simple as the visual inspection is the use of a tile probe to detect either buried stone markers or the grave shaft itself. Just as the depressions become filled with leaf litter which

gradually mulches into loam, so too can markers be covered over with soil, becoming buried through time. A probe (a metal or fiberglass rod with a handle) can be pushed into the soil to detect these buried markers. In addition, the probe can also be used to detect the different fill of grave shafts. Areas where the soil has been excavated, and then backfilled, will not be as compacted as areas where the soil has never been disturbed. Skillful use of a probe can allow you to detect those areas where there is less compact soil from those areas where there is subsoil. While very effective in areas of clay soil, it is less effective on the coast where the soils are sandy. To be effective, probing requires the use of a grid system and that probing is done perpendicular to the grave orientation. Typically, the interval is between 1 and 3 feet, depending on how large an area is to be covered.

More precise and more reliable is the use of a hand penetrometer, which measures soil compaction in pounds per square inch (psi). Areas of posited graves will have lower psi readings than those where there has been no digging. Like probing, the penetrometer is used at set intervals along grid lines established perpendicular to the suspected grave orientations. The readings are recorded and used to develop a map of probable grave locations.

We have found the penetrometer to be more accurate than a probe, and far less expensive than more complex techniques such as ground penetrating radar. At Colonial Cemetery in downtown Savannah, Georgia we located at least 8,678 unmarked graves using this technique (Trinkley and Hacker 1999a). We have found very consistent ranges in soil compaction at cemeteries on the coast in Georgia and South Carolina.

Site **38CH1897** includes the steam powered rice mill as well as other utilitarian buildings and what we believe to be an eighteenth century slave settlement. As funding becomes available we recommend two further actions for this site area. The first is close interval testing in order to better determine the locations and conditions of the other structures thought to be

present based on the period map. By having better site boundaries and knowledge concerning other structure locations, the USFWS will be better able to manage the site, ensuring that wildlife management activities do not harm the archaeological resources. With additional research it may also be possible to better understand the industrial activities which took place at the mill. Further historic research may be able to identify plans for similar mills. The second task is to conduct a more detailed assessment of the earlier slave settlement. Since this is the only eighteenth century settlement clearly identified, this step could not only help refine our understanding of the site, but can also help guide future management actions.

Site **38CH1898** represents the overseer's house, well, and the posited hospitals. Like 38CH1897, the historic chart of the island reveals a number of structures in this area which have not yet been found archaeologically. Close interval testing should be able to identify many of these structures and help determine their condition. There is the potential for structure-specific research. For example, at the flanker to the west of the overseer's house, dating the artifacts recovered should help determine if this is a nineteenth or early twentieth century structure. Examining the artifact patterns should help determine if the structure is a kitchen or a plantation store. Research in the vicinity of the two structures along the main Jehossee Road south of the overseer's house may help determine if they represent hospitals or house sites.

The tidal rice mill (**38CH1902**) is being lost to erosion. In many respects this site represents the very nature of the ACE Basin, as well as Jehossee Plantation. As such its loss would be unfortunate. The site is available for investigation only at low tide and only then for a short period. This makes any sort of comprehensive investigation very costly. It may, however, be possible to devise a strategy of coring to identify the nature of materials present, their extent, and their condition. This, in conjunction with more precise mapping of exposed features over a carefully selected period of low tides, might help us