Reintegrating Public History & Environmental Education:
Preservation and Interpretation of the Ruin at Java Plantation, Edgewater, Maryland

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ABSTRACT

Title of Document: REINTEGRATING PUBLIC HISTORY AND ENVIRONMENTAL EDUCATION: PRESERVATION AND INTERPRETATION OF THE RUIN AT JAVA PLANTATION, EDGEWATER, MARYLAND

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The mansion ruin at Java Plantation in Edgewater, Maryland, has deteriorated significantly since its abandonment as a dwelling in 1923. Located on a hilltop overlooking the Rhode River, a Chesapeake Bay tributary, the remains of a five-part Georgian mansion are anchored by a landscape that retains the rural character of its agricultural past. On-going archaeological investigation, along with recent transition from private control to ownership by the neighboring Smithsonian Environmental Research Center, makes the Java Plantation site unique among historic resources.

This study provides an argument justifying the expenditure of financial and human resources for stabilization of the Java Plantation ruins based on an interpretation plan that partners public history with environmental education objectives. In addition, this investigation offers the field of preservation an example
of how stabilized ruins may function as features on the landscape where heritage preservation and environmental conservations interests intersect in literal and symbolic ways.
REINTEGRATING PUBLIC HISTORY AND ENVIRONMENTAL EDUCATION: PRESERVATION AND INTERPRETATION OF THE RUIN AT JAVA PLANTATION, EDGEWATER, MARYLAND

By

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Dissertation submitted to the Faculty of the Graduate Program in Historic Preservation, School of Architecture, Planning, and Preservation of the University of Maryland, College Park, in partial fulfillment of the requirements for the degree of Masters of Historic Preservation 2008

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Dedication

For Joe and Melbourne, with love.
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Chapter 1: Introduction

Overlooking the Rhode River from its hilltop perch in Edgewater, Maryland, the ruin of an 18th-century Georgian mansion deteriorates. In a social climate where allocation of the financial and human resources that fuel preservation processes must be justified by end-use, we are challenged to consider how the preservation of this feature on the landscape may serve contemporary purposes. In response, this study will consider how the preservation of these historic ruins may be justified based on their potential usefulness within the context of the Smithsonian Environmental Research Center’s public programs for environmental conservation education.

As we begin to build a case for developing an interpretation strategy that will justify preservation treatment at the ruin site, known as Java Plantation,\textsuperscript{1} it is important, first, to acknowledge the existing theories and philosophies that have developed in recent years to support the consideration of leveraging heritage preservation and environmental conservation interests in ways that are mutually beneficial.

In her article, “Applied Environmentalism, or Reconciliation among ‘The Bios’ and ‘The Culturals,’” Rebecca Conrad reflects on the schism that often exists between cultural and environmental interests, noting that the two are often segregated at sites containing both types of resources. She laments that, “all but lost in the battles of environmental politics is a subtle, but ultimately more important,

\textsuperscript{1} Lost Towns Project investigation of this site has revealed a complex history of ownership and, subsequently, naming for the property addressed within this paper. The ruin considered within this paper has been referred to as “Contee House,” “Squirrel Neck Mansion” or “Java Ruin.” For our purpose, the resource will be referred to as “the ruins at Java Plantation,” given that the site is known as Java Plantation by contemporary stakeholders.
intellectual dissonance among professionals whose conservation and preservation values emphasize natural resources versus those whose values emphasize human-made resources.”

Her article serves as a call to arms, rallying for collaboration sympathetic to a holistic approach that recognizes our environment as a system of historic, cultural and ecological resources. Conrad views integration of cultural and natural history as a method for nurturing a greater sense of environmental stewardship in the general public. She proposes that, “when ordinary people can connect meaning with a place through the observation and contemplation of buildings, structures, and objects – things made by other humans and the history these things embody – there is greater chance they will come to a deeper understanding about the role of human agency in environmental change.”

Conrad encourages the pursuit of a more coherent, integrated approach to public environmental education by reminding her readers that, “conservationists of the late nineteenth and early twentieth centuries did not really disassociate natural resource protection from human activity.”

In fact, in 1906, the Antiquities Act authorized national protection of significant prehistoric, historic and natural features in the United States. It is only recently that popular understanding of the word *environment* has come to be associated most strongly with natural resources.

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Conrad’s cause is further supported by David Lowenthal’s essay, “Environment as Heritage.” Lowenthal reminds us that our definition of the term “environment” has changed over time. In the past, it referred inclusively to the variety of features that characterize our surroundings. According to Lowenthal, “it embraced all around us, ideas and feelings along with nature, artifacts, and other people…”5

In addition, Biologist Allen Cooperrider believes that the ramifications of skewing our perception of the environment to one that is exclusive of cultural features may be a contributing factor to wide-spread environmentally unsustainable human behavior. In his essay, “Reintegrating Humans and Nature,” Cooperrider asserts that the “fragmentation of human thought and human activity is central to our current ecological crisis.”6

Meanwhile, in the field of historic preservation, practice has embraced philosophies that provide professionals with a more inclusive view of cultural resources. For example, in his article, “Theoretical and Practical Arguments for Values-Centered Preservation,” Randall Mason invites us to consider that, within a single site we might recognize a variety of values or characteristics. It is through these values – historic, cultural, aesthetic, economic, political and environmental, among others – that we assign significance and meaning to places. Mason identifies the important contribution of values-centered preservation as being its creation of a framework for “dealing holistically with particular sites and addressing both the

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contemporary and historic values of a place.”⁷ This appreciation for contemporary
needs recognizes that preservation professionals are not only tasked with managing
physical material, social memory, and cultural processes. Historic preservation has a
responsibility to do so in a way that “reflects in some manner, its society in the
choices of what gets preserved, how it is preserved and interpreted, and who makes
the decision.”⁸

In conjunction with values-centered preservation, growing attention in the
field of cultural resource management has been paid to the role of “associative
values” – intangible qualities connected with the physical resources of a site.⁹ In her
article “Associative Values: Exploring Nonmaterial Qualities in Cultural
Landscapes,” Susan Buggy identifies symbolic attributes as associative elements
upon which the historic value of landscapes are often based. Buggy also recognizes
that a historic landscape with associative values can serve as “the meeting point at
which the cultural and natural elements of the world are acknowledged to be
inseparable.”¹⁰

Given this groundwork, independently built on both sides of the culture versus
ecology debate, we are poised to look for a place where integration of historic
preservation and ecological conservation public education missions might be
accomplished. In this study, I argue, we find that place in the ruins at Java Plantation.

Justification of this plan for preservation and interpretation is supported through an

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⁷ Mason, Randall. “Theoretical and Practical Arguments for Values-Centered Preservation.” CRM:
⁸ Ibid.
introduction to the property’s history of ownership, ruination, current condition and relevant contemporary site activities in Chapter 2; consideration of the site’s history of land use as a tobacco plantation and the known environmental impact of those past activities in the Chesapeake region in Chapter 3; exploration of ruins as symbolic devises within art, literature, and landscape design in Chapter 4; review of stabilization as a preservation treatment in contemporary case studies in Chapter 5; and synthesis of these findings into a proposal for action, suggestions for future research, and reflections on the relevancy of this project within the wider scope of preservation practice in Chapter 6.
Chapter 2: History of Ownership, Ruination, Current Conditions & Activities

The first stage of our effort to evaluate the potential usefulness of the Java Plantation ruin as a device for integrating public history and public environmental education missions is to appreciate the site’s history of ownership, history of ruination, current conditions and on-going activities.

History of Ownership

The 380-acre property, which is now called Java Plantation, has been known by several names during its 350-year history. During the 17th-century, the land was owned by the Thomas Sparrow family and encompassed large portions of properties patented as “Sparrow’s Rest,” “Sparrow’s Addition,” and “Locust Neck.”11

In the mid-18th-century, the 94-year history of Sparrow possession ended when the property was divided. A 690-acre segment, including the easternmost waterfront portions of the land along the Rhode River, was sold to Nicholas Maccubbin in 1747.12 The now-ruined mansion structure was constructed on this portion of the original property in the same year. Under Maccubbin ownership, the name of the property changed to “Squirrel Neck.”13 Upon Maccubbin’s death in 1787, the property was transferred to his son, James [Maccubbin] Carroll.14

During the 19th-century, the site was purchased by John Contee, who first called the property “Java.” The land was divided in 1859 by Contee’s widow, with the northern 380-acre portion (location of the Java Plantation ruins) going to her son Richard Contee, and the southern 360-acre portion going to her son, Charles Contee (included within the land holdings of the Smithsonian Environmental Research Center).\(^\text{15}\)

The Kirkpatrick-Howat family took ownership of Java Plantation in the early 20th-century\(^\text{16}\) and, in the 1970s signed a covenant with the neighboring Smithsonian Environmental Research Center to grant the organization right of first refusal in the event of the family’s decision to sell the property in the future.\(^\text{17}\) Concurrent to the development of this study, the process of transferring ownership from the Kirkpatrick-Howat family to the Smithsonian Environmental Research Center was initiated.

**History of Ruination**

The structure built by Maccubbin was originally constructed of brick and had five parts (Figure 1). The center section was two and a half stories tall with a gambrel roof, while the two hyphens and wings were one story tall with gable roofs. Despite


Figure 1. 1880s illustration of Java Plantation Mansion (Reproduced from the June 2006 Lost Towns Project report, Survey of Archaeological Resources in the Rhode River Region).
its Georgian features, the mansion did not include a water table or belt course, which would have been common for a house of the style. The mansion was struck by lightening and fire burned the structure in 1890. The building was partially reconstructed, including only the main center block, west hyphen and west wing, using the fire-damaged brick in 1890. The building was abandoned as a dwelling in 1923 and, since that time, deterioration has been dramatically swift, with photographic documentation chronicling the structure’s ruination over time (Figures 2 and 3).

Current Conditions

Today, the ruin consists of deteriorated brick foundations, walls, and the chimney stacks of the main center block, west hyphen and west wing (Figure 4). Much of the brick that is still intact suffers from spalling and the mortar joints are cracked. Weathering, erosion from plant growth, porous masonry, rising ground moisture, and structural settlement are all likely contributors to the ruin’s condition.

The most significant remaining architectural elements are the chimney stacks and the decorative pilasters made of glazed brick on the eastern façade. The decorative brickwork seen on the Java Mansion ruins is found elsewhere in Maryland, at the Carroll-built house known as ‘Mount Clare’ in Baltimore City. The inclusion

Figure 2. Abandoned mansion at Java Plantation (Photo courtesy of the Maryland Historical Trust, State Historic Sites Survey, 1971).
Figure 3. Current conditions of Java Plantation ruin (Photo by J. Ruck, March 2008).
Figure 4. Brick and mortar deterioration at the Java Plantation ruin (Photo by J. Ruck, March 2008).
of this similar design feature is likely attributable to family connection – Maccubbin’s wife was sister to Mount Clare owner, Charles Carroll, the Barrister.\textsuperscript{21} The two structures may have been constructed by the same Annapolis-based builder – Partrick Creagh.\textsuperscript{22}

The ruin’s viewshed includes cleared land that was once used for agricultural activities, deteriorating ancillary agricultural buildings, wetland areas at the riverbank, and the Rhode River (Figure 5).

**Current Site Activity**

Beginning in 2005, the Anne Arundel County Department of Archaeology’s *Lost Towns Project* began a multi-phased investigation of the Rhode River Region in southern Anne Arundel County, Maryland. With funding from the Maryland Historical Trust’s FY2005 Non-Capital Historic Preservation Grant, the project included assessment of 24 recorded archaeological sites in the region, as well as effort to discover new sites.\textsuperscript{23} Based on that project, the report, “Survey of Archaeological Resources in the Rhode River Region, Anne Arundel County, Maryland” was created in 2006. In the report, two sites were identified as appropriate candidates for more intensive investigation. Java Plantation was selected for Phase II archaeological investigation. Excavation efforts in the shadow of Java Plantation ruins began in

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Figure 5. View from the Java Plantation ruin hilltop, overlooking historic agricultural fields, shore line, and Rhode River beyond (Photo by J. Ruck, March 2008).
2007 and are on-going (Figure 6).

Immediately adjacent to the Java Plantation property is the Smithsonian Environmental Research Center (SERC), which currently owns more than 2,800 acres in the Rhode River watershed (Figure 7). As part of SERC’s public outreach activities, the Java History Trail was developed as a 1.3-mile self-guided walking path through field, forest and marsh (Figure 8). The trail includes interpretive signage (Figure 9) that describes the “history of the land and the people who lived and worked on it.” The interpretation includes discussion of colonial settlement and plantation life, referencing the 700-acre farm owned by Thomas Sparrow, the importance of proximity to water transportation and soil quality in settlement, and the impact of 18th-century agricultural practices and associated commercial activities on the environment.25 According to Karen McDonald, SERC’s Public Programming Manager, the history trail is often used in conjunction with their Estuary Chesapeake educational activity, which provides students visiting the Reed Education Center on SERC’s campus with an opportunity to explore the Chesapeake Bay’s ecosystem.

The ruin at Java Plantation is referenced as a feature within the trail’s viewshed. According to the SERC online Java History Guide, “from most points on the trail you can see two chimneys on a nearby hill, all that remain of the manor house of John Contee’s Java Plantation.” Within the publication, Landings: A

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Figure 6. *Lost Towns Project* archaeological investigations (Photo by J. Ruck, April 2008).
Figure 7. Proximity map illustrating geographical association among the Java Plantation Ruin (red marker A), the Lost Towns Project excavation site (red marker B), and the SERC Education Center (red marker C), and points of interest along the Java History Trail (blue markers) (Created by J. Ruck with GoogleEarth, May 2008).
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Figure 9. Example of the interpretive signage utilized throughout the SERC Java History Trail (Photo by J. Ruck, May 2008).
Boater’s Guide to the Four Rivers Heritage Area of Annapolis and Anne Arundel County, which was created with funding by the Maryland Heritage Areas Authority to promote the Four Rivers: The Heritage Area of Annapolis, London Town & South County, the ruin at Java Plantation is mentioned in association with SERC’s Java History Trail.

Conclusion

With an understanding of this background established as the context within which interpretation and preservation activities may be undertaken, attention must now turn to exploration of Java Plantation’s agricultural history and the relevance of that past land use in developing an integrated cultural-environmental interpretation of the site.
Chapter 3: Historic Land Use & Regional Context

Given the intention of this study to justify preservation of the ruins at Java Plantation based on the development of an interpretation strategy that serves both public history and environmental public education missions, the following examination of this site’s historic land use and the known environmental impact of similar past activities in the Chesapeake region identifies a critical relationship between the cultural and ecological history of Java Plantation. It is upon this association that an integrated narrative can be based.

Historic Land Use: The Tobacco Plantation of Sparrow, Maccubbin and Contee

According to Lost Towns Project archival research pertaining to the Java Plantation site, the land has been an intensive site of agricultural use since it was first occupied by the Thomas Sparrow family in 1674.\(^{26}\) Based on inventory of Thomas Sparrow’s property, dated October 25, 1678, we know that his holdings of real estate and material culture were consistent with those associated with a wealthy 17th-century planter.\(^{27}\)

Lost Towns Project research also indicates that, upon his death in 1787, Macubbin bequeathed his land, slaves, livestock and plantation utensils to his son, James Carroll. Subsequently, Carroll appointed William Johnson as superintendent of the plantation, assigning responsibilities that included management of 40 slaves.\(^{28}\)

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In addition, examination of the 1798 Federal Tax Assessment “suggests a very large farming operation was being undertaken on the plantation”\(^{29}\) during the Maccubbin-Carroll occupation.

Investigation into the Contee-era occupation indicates that John Contee, who maintained a life-long residence in Prince George’s County, “left daily operations of the plantation in the hands of an overseer, continuing the tradition started by James (Maccubbin) Carroll.”\(^{30}\) The inventory of John Contee’s land holdings, which was made in February 1840, sheds some light on the scope of the farming operations that were taking place on Java at the time. “There were 84 slaves listed as living on the property, which would provide a labor force of approximately 40 people.”\(^{31}\) According to the inventory, the slaves produced 70,000 pounds of tobacco in 1839, which was considered a tremendous amount relative to the other farms in the region.\(^{32}\)

After John Contee’s death, both sons continued to engage in successful agricultural operations on the north and south portions of the property until the abolition of slavery. After the Civil War, however, the farms were turned over to tenant occupation.\(^{33}\)

Regional Context: The Impact of Colonial and Early-Federal Period Chesapeake Tobacco Production

The kind of agricultural land use seen throughout the Java Plantation property’s history was common in the Chesapeake region from the time of colonial


\(^{31}\) Ibid.

\(^{32}\) Ibid.

\(^{33}\) Ibid.
settlement through the twentieth century. We know, however, that profound change in the landscape occurred during these centuries. “While early accounts of Europeans arriving to colonial America describe thick, black topsoil, today, the same areas are thin and clayey.”

What factors contributed to this change?

According to David R. Montgomery, author of Dirt: The Erosion of Civilizations, “until the 1790s, plantations worked by slave labor grew virtually nothing but tobacco.” Tobacco, by its nature, is a relatively unsustainable crop, as it “strips more than ten times the nitrogen and more than thirty times the phosphorous from the soil than do typical food crops.” In addition, specific agricultural techniques contributed to the problem. In growing tobacco, farmers heaped up a pile of dirt around each plant with a hoe or a light on-horse plow, leaving soil exposed to rainfall and vulnerable to erosion during summer storms that hit before the plants leafed out. This technique, combined with “continuous planting without crop rotation, inadequate provision for livestock to provide manure, and improvident tilling straight up and down sloping hillsides” accelerated soil depletion and erosion.

It is now estimated that “soil erosion accelerated by at least a factor of ten under European land use in the colonial era.” Sedimentation rates in some

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Chesapeake Bay tributaries increased almost twenty-fold after European settlement. As erosion stripped away vital plant nutrients and hastened soil exhaustion, “sediment flowed into Chesapeake streams, creeks, and estuaries, clogging them up and disrupting navigation.” For example, Maryland’s Joppa Town, which was established by an act of the Maryland legislature in 1707, rapidly grew to become the most important seaport in the colony. The port’s status was short-lived, however, as a cycle of erosion began filling in the bay with sediment, which obstructed the passage of ocean-going vessels. By 1768, the county seat was moved to Baltimore where the harbor was unaffected by sedimentation.

The fact that negative impacts of abusive agricultural practices were already being felt in the 18th-century begs the question: why did these practices continue? Several underlying socio-economic causes spurred the destructive agricultural practices of the seventeenth-, eighteenth- and nineteenth-centuries. First, on this continent, settlers perceived land as cheap and unlimited. With the support of slave labor, “clearing new fields was cheap compared to carefully plowing, terracing, and manuring used land.” This perspective “promoted a widespread attitude that land could be used, exhausted, or destroyed as the case may be, and then abandoned for new land.”

Second, “the large scale effects of their agricultural practices did not become so severe until the last half of the eighteenth century, when the population, particularly

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in the Tidewater counties, became dense.” The pressure of population density “forced planters to till more highly erodable soils and to reduce, if not eliminate long fallow,”\(^45\) which enabled restoration of the soil’s fertility. Third, despite the obvious toll on the land, tobacco cultivation was appealing to colonial farms for two important reasons – “tobacco fetched more than six times the price of any other crop, and could survive the long (and expensive) journey across the Atlantic.”\(^46\) With that kind of economic return, there was little incentive to diversify crop cultivation. Fourth, “large plantations’ owners – those most likely to recognize the problem of soil exhaustion – did not work their own land.”\(^47\) Slave overseers and tenant farmers who were paid with a percentage of the crop were most interested in maximizing harvest. Maintaining soil fertility was of little importance to the people who would actually have to implement contour plowing, field manure fertilization and repair of gullies created by erosion (Figure 10). Finally, “the institution of slavery was incompatible with methods for reversing soil degradation.”\(^48\) Even when the destructive nature of the slave-based agricultural economy was recognized, “abandonment of the practice was impossible given the investment plantation owners had in slaves.”\(^49\) Thus, “once

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\(^{45}\) Percy, David O. “Ax or Plow?: Significant Colonial Landscape Alteration Rates in the Maryland and Virginia Tidewater.” *Agricultural History* 66, No. 2, (Spring, 1992). 70.


Figure 10. Engraving by F.W. Fairholt, which was produced in 1859, depicting supervised slave-labor at a tobacco plantation (Available via ArtStor.org image gallery; Accessed May 2008).
individual family farms coalesced into slave-worked tobacco plantations, the region became trapped in an insatiable socioeconomic system that fed on fresh land.”

Conclusion

With comprehension of Java Plantation’s historic land use, and appreciation for the site’s role as a representative example of environmentally destructive colonial era farming techniques and land management practices in the Chesapeake Bay region, we have developed a narrative core for the proposed integrated historical-environmental interpretation strategy. The next step in investigating the feasibility of this proposal is exploration of how ruins can be used to communicate the integrated message.

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Chapter 4: History of Interpretation & Contemporary Theory in Ruin Significance

As we begin to acknowledge human action as a factor in ecological processes, environmental change, and landscape modification, professionals in cultural and environmental education are challenged to find engaging illustrative tools and methods through which they can explore concepts of history, culture, ecology and process with the public. In offering the ruin at Java Plantation as an artifact that can be used toward this purpose, we now explore how the ruin might articulate an integrated historical-environmental message. This effort focuses on examining the ruin as a meaningful motif in past centuries and in contemporary theory.

The History of Ruin as a Meaningful Motif

It was during the European Renaissance, that the ruin “emerged into human consciousness” as “an object of knowledge.”51 During the fifteenth- and sixteenth-centuries, ruins were perceived to be a new kind of primary source to compliment the information found in texts. “The interest in ruins, beginning with the proverbial revival of antiquity in the Renaissance, is most closely connected with the understanding of the impact of history on the living.”52 Humanists of the period “admired these eroded fragments, but not their state of decay or ruin.”53 During the Renaissance, people did not identify the ruins’ aesthetic condition as a motif that articulated symbolic meaning. This period did, however, set the stage for future

inclinations to ascribing representative significance to ruined architectural elements. During the Renaissance rediscovery of antiquity, the combination of text and figure in the art of the emblem was derived from the hieroglyphic model. “Thus, through the intermediary of inscriptions carved on the remains of Egyptian monuments, it was seen that emblems and ruins belong to the same ‘family’.”\textsuperscript{54}

In the 17th-century the ruin became a central topic of landscape painting (Figure 11). “Mannerism and Baroque conceived ruins primarily as stimulating motifs of painterly bravura, and opportunities for the scintillating interplay of light and shadow, of nuances of color, provided for by the interesting contrasts between the tonal values of withered stones and growing vegetation which naturally could not be found in unimpaired works of architecture.”\textsuperscript{55} Ruins were treated “only as mood-creating props on one level with trees, clouds, and rainbows.”\textsuperscript{56}

The 18th-century represents the climax of widespread interest in ruins, with ruins being perceived within the context of the Romanic movement’s Picturesque philosophies “as elements of a landscape rather than as architecture.”\textsuperscript{57} The appropriation of ruins as design features in English gardens became common. For example, “the Romantic garden at Studley Royal in North Yorkshire was designed to include striking and picturesque vistas of the eleventh-century Fountains

Figure 11. “Ruin of Egmond” painting by Jacob van Ruisdael, c. 1650-1660 (Available via ArtStor.org image gallery; Accessed May 2008).
Abbey ruin, located on neighboring land”58 (Figure 12). Similarly, “the ruins of Rievaulx Abbey, also in North Yorkshire, were incorporated into the garden landscape of Thomas Duncombe’s estate”59 (Figure 13).

During the 18th-century, “the experience of ruins was linked to that of the sublime, to the reflections on the greatness of the past and the power of natural forces.”60 The “cult of ruin” that developed during this time represented a shift from “registering precise and detailed meanings of ruins, completing their vacancies with learned and specific knowledge, to responding simply to their impressionistic suggestions of decay and loss.”61

Poet and landscape gardener, William Shenstone, reflected on the appeal of incorporating ruins in garden design. He wrote, “ruinated structures appear to derive their power of pleasing, from the irregularity of surface, which is variety; and the latitude they afford the imagination, to conceive an enlargement of their dimensions, or to recollect any events or circumstances appertaining to their pristine grandeur, so far as concerns grandeur and solemnity.”62

Eighteenth-century Romanic literature trends driven by authors like Shenstone stimulated interest in ruins to an even higher degree, with prose writers taking up the

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59 Ibid.
Figure 12. Fountains Abbey ruin in Yorkshire, England (Photo by J. Ruck, August 2000).
Figure 13. Rievaulx Abbey ruin in Yorkshire, England (Photo by J. Ruck, August 2000).
use of architectural images as metaphorical vehicles. Landscape designers followed suit as they also began to appreciate the symbolic, as well as picturesque, quality of ruins.

In “exemplifying the transience of great men and deeds, the consequence of depravity, or the triumph of justice over tyranny, ruins inspired reflections on what had once been proud and strong and new but was now decrepit, corrupt, degraded.” As “reminders of the evanescence of life and the futility of effort,” ruins became an accepted means for responding to the past.

“The yearning for the romantic qualities of broken columns, dilapidated brick arches, and of half-destroyed bridges is probably nowhere more clearly expressed than in artificial ruins.” Sham ruins – newly built structures created to appear as though they have been ravaged by the deteriorative effects of time – first appeared in 18th-century in English, French and German designed landscapes.

“Many Gothic sham ruins erected after the Jacobite Rebellion of 1745 were produced as attacks on England’s Catholic and baronial past.” These artificial ruins, “were not simply images of picturesque beauty, nor images of nostalgia; rather, they were monuments of ridicule and images of just destruction, commemorating the

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64 Ibid.
66 Ibid.
68 Ibid.
defeat of Charles Edward, the Young Pretender, by the forces of George II.\textsuperscript{70} The Gothic sham ruins were erected “not in praise of medieval culture, but as a warning to those who might attempt to rebuild a culture of abbeys and divine right kings in an age of reason that appropriated rather than worshipped the Gothic era.”\textsuperscript{71} Within the context of the 1745 Rebellion, “Gothic ruins elicit a self-righteous view of a corrupt time brought justly by nature to destruction.”\textsuperscript{72}

Notable 18\textsuperscript{th}-century sham ruins include the English allegorical landscape, Stowe, which was designed by William Kent to include contrived fragments of the “Temple of Modern Virtue” juxtaposed with the completeness of the “Temple of Ancient Virtue”\textsuperscript{73}, the ruined Gothic priory built by William Shenstone as an attack on the religious corruption of superstition that brought disease to England and ultimately brought the diseased feudal era to ruin”\textsuperscript{74}, and the private pleasure garden, Le Desert de Retz, completed by Francois Nicolas Henri Racine de Monville in 1789 on the eve of the French Revolution, including the The Broken Column – a four-story habitation built in the shape of a ruined classical column, “with its awesome scale and intimation of violence near at hand”\textsuperscript{75} (Figure 14).

During the 19th-century, authentic ruins were employed for their ability to symbolically convey a different kind of message. As England shifted from an

\textsuperscript{71} Ibid.
Figure 14. “Desert De Retz,” image created c. 1785 (Available via ArtStor.org image gallery; Accessed May 2008).
agriculturally- to an industrially-based nation, and from a mercantile into a global capitalist economy it reinvented itself as “Britain,” a homogeneous nation made up of various and disparate cultural groupings within England, Wales, Scotland and, by the beginning of the 19th-century, Ireland. Within this context, ruin imagery helped to establish unity. “The authority of antiquity was one thread in the fabric of a common nationality, and was visibly available in architectural ruin, the physical trace of historical event in the countryside.” As symbols, ruins offered a useful message. They “were admired as blending into the countryside, while the sense of ‘country’ as rural terrain and ‘country’ as nation also began to melt one into the other.” In this way, the concept of Britain as a nation was “naturalized” through the myth of rural England as a homogeneous, coherent nation. “In the eighteenth-century ruin sentiment the cultural entity (Britain) was also forged as inextricable from the natural entity (the countryside), not merely superimposed but blended, and the nation came to be understood as nature.”

While ruins on the scale of those found in Europe were not present in America, “architectural ruins did exist in the 19th-century American landscape, and some of these ruins appear to have been assigned special meanings.” Archaeologists, Julia A. King, argues that sites located in St. Mary’s County, MD, the first area of the state of Maryland to be colonized by Europeans, provide illustration of this theory. According to King, “at least three ruins appear to have served as

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reminders of the past and possibly served important roles in the network of social relationships: the abandoned shell of the 17th-century statehouse, the ruins of Lord Baltimore’s Mattapany House, and a ruin in the house yard of Susquehanna, the Carroll family property.”

King believes that “the ruins not only reminded the plantation owners and their families of the role played by their ancestors in the formation of the state and the nation, but they may have also subtly reinforced and justified a way of life that was failing both economically and socially for more than three-quarters of the population.”

Seventeenth-century ruins in 19th-century culture, “part cultural, part natural, may have served to justify a system that, through inheritance, kept land ownership out of reach for most people.”

Southern Maryland’s oligarchic elite may have “looked to the past for justification of their fading social and economic order”

This evolution of symbolic significance, which occurred over time as people assigned and reassigned meanings to the ruins within their landscapes, has continued into the 20th- and 21st-centuries, although be it with less mainstream fervor than was

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enjoyed during the 18th- and 19th-centuries. Contemporary theorists offer their own readings of the messages that ruins convey to us today.

**Contemporary Theories on the Meaning of Architectural Ruin**

While the tradition of the interpreted meanings of ruins contributes to our effort, in order to most effectively use the Java Plantation ruin as a device for integrating historical-cultural and environmental-ecological interests in a way that is relevant to contemporary audiences, it is also important to consider contemporary theory on the meaning and significance of architectural ruins.

In his book, *American Ruins*, author and photographer, Arthur Drooker argues that ruins are more than picturesque silhouettes, providing dramatic contrast of light and shade. He says that a ruin “is a place of spirit and atmosphere that invites us to think about the past, present and future.”

In conjunction with invoking the ruin as a tangible connection with the past, he challenges his reader to “see how a dynamic, visible relationship with nature is critical to the potency of each ruin,” arguing that “each has a unique personal relationship with its environment…”

Aesthetics theorist, Florence M. Hetzler offers us an observation, which succinctly identifies the relationship between the historical-cultural and environmental-ecological as they intersect in architectural ruins. She states: “a ruin is architecture and sculpture and nature in time, place, and space,” identifying ruins as

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“products of the processive cocreativity of nature and man….” She argues that, “in a ruin the edifice, the human-made part, and the nature are one and inseparable; an edifice separated from its natural setting is no longer part of a ruin since it has lost its time, space and place.”

The relationship that exists among the structure, nature and time, is so intrinsic to a ruin’s identity that Hetzler has developed a concept, which she calls, “ruin time.” For Hetzler, “ruin time is immanent in a ruin and this time includes the time when it was first built, that is, the time when it was not a ruin; the time of its maturation as a ruin; the time of the birds, bees, bats and butterflies that may live in or on the ruin; the cosmological time of the land that supports it and is part of it and will take back to itself the man-made part eventually; as well as the sidereal time of the stars, sun and clouds that shine upon it, shadow it and are part of it.”

The concept of ruin time becomes especially useful to our goals of integrating historical-cultural and environmental ecological interests if we accept Hetzler’s assessment that ruin time is a unifying force. She argues that “the ruin brings together nature, the human-made and the human being – all unified in ruin time.”

In addition to adopting the unifying concept of ruin time, we might justify appropriation of ruins for the articulation of contemporary messages based on Hetzler’s opinion that “ruins must also be semiotically different from what they were before they became ruins.” By assigning the ruins of Java Plantation a new,
relevant purpose, the decaying historic structure becomes more than just a pile of crumbling brick.

Similarly, Paul Zucker argues that the image of the ruin is “an echo of the variety of feelings in the interpreter’s cultural climate as that of the age in which the building was constructed.”93 His perception that “the image of the ruin is always ambivalent and open to manifold interpretations”94 makes the ruins at Java Plantation accessible to achieving the goal of developing a holistic, multifaceted and inclusive interpretation strategy.

Zucker also observes that ruins “make us conscious of the contrast between Nature and the organizing power of the human spirit.” He identifies the power of architectural ruins to connect man with the processes of nature. Through ruin, “we are fully aware that the same forces which have shaped the outlines of mountains or the banks of a river have also molded the visible contours of the original architecture into a striking image of deformation.”95

Meanwhile, Professor of Philosophy, Donald Crawford, from University of Wisconsin, Madison, has observed that “nature and artifacts commonly appear together and not infrequently artistic constructions are intentionally placed in natural settings.”96 From this, he concludes that “in a variety of ways, then, the appreciation of nature often involves the artifactual.”97

94 Ibid.
97 Ibid.
Sanda Iliescu’s examination of Peter and Anneliese Latz’s “garden as collage” landscape projects provides an example of this heightened appreciation of nature through artifact. Iliescu asserts that, through the artists’ use of ruined elements and architectural fragments “our understanding of the difference between nature and the built world changes.”98 She argues, “the Latzes’ collage aesthetic challenges the way we distinguish between the natural and the constructed, the public and the private, and the everyday and the artistic.”99

Although the work of Peter and Anneliese Latz is different from the ruin at Java Plantation in that it is collage art – a selected collection of disjunctive fragments designed to create an aesthetically composed whole – it offers us a perspective on how we might use the un-designed, naturally created “collage” of decayed architectural features and biological material found at the ruin at Java Plantation to change the public perception regarding the boundaries between historical and environmental interest.

According to John Dixon Hunt, ruins are readily employable as tools for inspiring and challenging the mind in this way. He observes: “what attracts one to ruins is their incompleteness, their instant declaration of loss, which we can complete in our imagination.”100

Finally, in John Brinkerhoff Jackson’s book The Necessity for Ruins, he reminds us that public symbols are often created, “not to please the public, but to

remind it of what it should believe and how it should act.”¹⁰¹ If we subscribe to this philosophy, it would not be inappropriate to adopt the ruins at Java Plantation as a public symbol to remind people of the environmentally insensitive pattern of land use associated with agricultural landscapes of the past, and to inspire consideration of the impact our present-day behaviors will have in the future.

**Conclusion**

In the past, ruins were appropriated by Europeans and Americans in response to the specific socio-political needs of the time in which they were being interpreted, based on their usefulness as devices that symbolically communicated meaning. Today, aesthetic theorists believe that the broken, incomplete features of ruins offer audiences an opportunity to fill in the gaps with their own contemporary cultural reference points. In this way, ruins are artifacts of past that can serve monumental purposes in the present. Furthermore, as structures reclaimed by the work of environmental processes, ruins have the ability to show us how inseparable nature is from what we create and how inseparable we are from both the natural and human-made elements of our environment. Thus, development of a preservation treatment plan for the ruins at Java Plantation must be sensitive to the fundamental ruin properties, which enable interpretation.

Chapter 5: Evaluation of Stabilization as Treatment for Ruin Preservation

Modern preservation practice provides a variety of treatment solutions for the management of cultural resources like the ruins at Java Plantation. As we consider the potential use of these ruins as a device for integrating public history and environmental conservation public education interests, we must be conscientious of the impact any physical treatment solution may have on the ruin’s ability to function as a meaningful symbol that facilitates interpretation. The following discussion of treatment standards, relevant professional opinion, and case study models provides insight into preservation methods that will enable the interpretation goals of this proposal to be achieved.

Preservation Treatment

Treatment alternatives ranging from stabilization to adaptive use are typically evaluated based on criteria established by *The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, & Reconstructing Historic Buildings*. Within these guidelines we understand the general standards for these intervention methods to include: preservation – requiring retention of the greatest amount of historic fabric, along with the building’s historic form, features and detailing as they have evolved over time; rehabilitation – acknowledging the need to alter or add to a historic building to meet continuing or new uses while retaining the building’s historic character; restoration – allowing for the depiction of a building at a particular time in
its history by preserving materials from the period of significance and removing materials from other periods; and reconstruction – re-creating of a vanished or non-surviving building with new materials for interpretive purposes.

Preservation, the least invasive of the four strategies, allows for repair through stabilization, consolidation and conservation. These activities strive to retain existing materials and features while employing as little new material as possible. Stabilization includes structural reinforcement, weatherization and the correction of unsafe conditions, while consolidation and conservation allow for activities that strengthen fragile materials (repointing historic mortar joints) and reinforce vulnerable structural systems (installing steel rods through historic brick walls).  

Throughout history, preservationists have debated the appropriateness of the varied treatments, with many of these individuals specifically criticizing restoration and implying the superiority of less invasive stabilization and rehabilitation options.

The philosophy of 19th-century English preservationists, John Ruskin and William Morris, provide support for stabilization as the preferred means of preservation. Of restoration, Ruskin said, “it means the most total destruction which a building can suffer: a destruction out of which no remnants can be gathered; a destruction accompanied with false description of the thing destroyed…it is impossible, as impossible as to raise the dead, to restore anything that has ever been

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great or beautiful in architecture.”

Meanwhile, Ruskin’s contemporary, William Morris, writes of restoration in his *Manifesto of the Society for the Protection of Ancient Buildings* (1877): “a strange and most fatal idea, which by its very name implies that it is possible to strip from a building this, that, and the other part of its history – of its life that is – and then to stay the hand at some arbitrary point, and leave it still historical, living and even as it once was.” Morris calls the practice “forgery” and calls upon preservationists to “put Protection in the place of Restoration, to stave off decay by daily care, to prop a perilous wall or mend a leaky roof by such means as are obviously meant for support or covering, and show no pretence of other art, and otherwise to resist all tampering with either the fabric or ornament of the building as it stands.”

More recently, David Lowenthal has said of ruins, “aesthetics require a balance between architecture and nature, but the balance must seem uncontrived: any suggestion that the ruin is an artifice or that its decay has been deliberately arrested lessens our appreciation of it.” He argues that, “reconstruction fixes and freezes a particular image, short-circuiting the imagination.” Meanwhile, “a focus on preserving fragments does not connote a reduced regard for preserving material

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substance; on the contrary, it implies a heightened respect for its now altered and attenuated form.”¹⁰⁹

While it is much more common place for stabilized ruins to appear on and be interpreted within the English landscape that was home to Ruskin and Morris (Figure 15), America offers several fine examples that may provide guidance for the treatment of the mansion ruin at Java Plantation. These ruin stabilization case studies include: Dungeness Mansion, Cumberland Island, Georgia (Figure 16); Rosewell Mansion, Gloucester, Virginia (Figure 17); and the Old Governor’s Mansion, Barboursville, Virginia (Figure 18).

**Dungeness Mansion, Cumberland Island, Georgia**

Thomas Carnegie began construction of the Dungeness estate in 1881 on the ruins of the former home of Nathaniel Green, a Revolutionary War general. The fifty-nine room turreted castle was completed by Carnegie’s wife, Lucy, after his death in 1886 (Figure 19).

Prior to the mansion’s ruination by fire in 1959, the first preservation activity associated with this site was undertaken in October, 1958, in the form of an Historic American Building Survey (HABS). The documentation records information including: *Brief Statement of Significance, Part I: Historical Information, and Part II. Architectural Information.*¹¹⁰ The HABS Written Historical and Descriptive Data and several of the HABS photographs for Dungeness are attached to this paper as

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Figure 15. Byland Abbey ruins in North Yorkshire, England (Photo by J. Ruck, August 2000).
Figure 16. Dungeness Mansion ruins, Cumberland Island, Georgia (Photo by J. Ruck, March 2008).
Figure 17. Rosewell ruins, Gloucester, Virginia (Photo by J. Ruck, April 2008).
Figure 18. Old Governor’s Mansion ruins, Barboursville, Virginia (Photo by J. Ruck, April 2008).
Appendix A to provide examples of the kind of thorough HABS documentation that should be completed for the ruin at Java Plantation.

The second major preservation initiative associated with the Dungeness site occurred in 1972 when portions of Cumberland Island, including the mansion ruin, were designated as a National Seashore and management of the site was undertaken by the National Park Service. According to David Casey, the current Cumberland Island National Seashore Facility Manager, designation of the island as a National Park was spurred by interest in natural resource conservation and the provision of space for public recreation. Thus, the ruin, as part of the Dungeness Historic District, was not added to the National Register of Historic Places until 1977. As management philosophies at Cumberland Island shifted to greater cultural resource sensitivity, the National Park Service made its first efforts to conserve the Dungeness mansion ruins by undertaking stabilization of the brickwork and window casing in 1980.

The next phase of preservation activity began in 1996 when a 1.3 million dollar plan for extensive stabilization was conceived. In 2001, a Value Analysis Workshop (VAW) analyzed functional planning issues and various alternate solutions for the project. A proposal was developed in 2002 for the stabilization of the Dungeness ruins based on both the 1996 project and items from the VAW. In May 2003, a management assessment was completed to evaluate the conditions of the site and further analyze alternatives described in the 2002 proposal. An Environmental Assessment report was drafted in February 2004 to evaluate the three management alternatives that were proposed as treatment for the Dungeness ruins – no action,  

stabilization of only the most intact portion of the Dungeness Ruin, and comprehensive stabilization, including restoration of landscape features. This Environmental Assessment report provides a thorough analysis of the potential environmental consequences of the three alternative treatments of the Dungeness ruins. This document may be a useful reference as Java Plantation stakeholders consider the development of treatment strategies for their ruin.113 The “Stabilization of the Dungeness Ruins, Cumberland Island National Seashore, DRAFT Environmental Assessment, February 2004” is available online at:


Implementation of the preferred stabilization treatment – stabilization of only the most intact portion of the Dungeness Ruin – is on-going (Figure 20) and completion of the projected is projected for August 2008. The procedure has been governed strictly, and excerpts from the “Dungeness Ruins Stabilization, Cumberland Island National Seashore, Project Manual, January 2006,” including specification “Section 04911 – Brick Masonry Repair and Replacement” and “Section 04916 – Repointing with Cement Lime Mortar,” are attached to this report as Appendix B. These construction documents provide guidance for technical standards appropriate for the treatment of the ruin at Java Plantation.

Rosewell mansion ruins, Gloucester County, Virginia

Construction of Rosewell by the Page family began on the bank of Carter’s Creek in 1725. “Rosewell was unlike any other house in the Tidewater region of

Figure 20. Brick and mortar conservation treatment at Dungeness Mansion ruins, Cumberland Island, Georgia (Photo by J. Ruck, March 2008).
Virginia. Shaped like a massive, three-story cube, with stone ornaments, rubbed brickwork, and recessed window frames, it was probably inspired by fashionable homes in London.\textsuperscript{114} Accidental fire destroyed the Rosewell mansion in 1916.

Preservation activity of the ruin began in 1933 with the completion of HABS photographic documentation\textsuperscript{115} (Figure 21). In 1956, archaeologist Ivor Noel Hume visited Rosewell, which was still privately owned, and, with permission, began the site’s first excavation in the following year.\textsuperscript{116} Documentation of the site continued with listing on the Virginia Landmark Register in 1968, and listing on the National Register of Historic Places in 1969.\textsuperscript{117}

In 1979 the property was donated to the Gloucester Historical Society. It was under the stewardship of the historical society that material conservation of the ruin began in the form of mortar repointing and installation of the steel beams that still stabilize the structure today (Figure 22). In 1995, the Rosewell Foundation was created by the historical society as a separate organization to undertake the mission of preserving and interpreting the ruin. The foundation’s mission includes fundraising efforts associated with achieving these management goals. The site’s Visitor Center – distanced from the ruin as not to impede the viewshed – offers an exhibit and 6-minute video describing the history and significance of the site. Visitors may use a self-guided tour map with narrative to explore the site. The ruin’s relationship with the natural environment is recognized in its inclusion as a site on the Gloucester


Figure 22. Steel structural reinforcement utilized for stabilization of Rosewell ruins in Gloucester, Virginia (Photo by J. Ruck, April 2008).
Loop of the Virginia Birding and Wildlife Trail. The site receives approximately 2,500 guests per year, including many elementary school field trips, senior citizens groups and college students.

Archaeological investigation – a significant element of the site’s interpretation since the days of Hume – is on-going at Rosewell, supported by the foundation not only for research value, but for its ability to generate public interest. The Foundation does not employ archaeologists on staff, but has a cooperative relationship with archaeologists David A. Brown and Thane H. Harpole of DATA\Investigations. In 2002, the foundation commissioned the team to develop an archaeological management plan. While the scope of that report did not include a complete treatment plan for stabilization, documentation, and preservation of Rosewell’s architectural resources, the archaeologists “strongly recommended” that the foundation pursue the development of such a plan in its goals for the future.

In response, the Rosewell Foundation launched its “Blueprint for Preservation” initiative to develop a plan for the ruin’s preservation. The first step in their process was a Conservation Assessment Program (CAP) study conducted in 2004 by John I. Mesick from Mesick•Cohen•Wilson•Baker•Architects of Albany, New York, and funded by a CAP grant from the Institute of Museum and Library Services and Heritage Preservation. Although these federal grants are usually reserved for conservation of artifact and archival collections, Rosewell Foundation

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119 Hicks, Hilarie. Interview by author, 9 April 2008.


argued that the ruin and its associated archaeological resources were the principal components of their institution’s collection.\textsuperscript{122}

The completed CAP report, “Conservation Assessment of the Ruins at Rosewell, Gloucester, Virginia,” outlined key prerequisite objectives to the development of a plan for stabilization. These objectives included: photogrammetric survey; inspection by a consultant team of architects, structural engineers, and masons; mortar analysis; geotechnical investigation of the soil supporting the ruin; archaeological investigation to assess the condition of the structure’s foundation; assessment of natural threats; water runoff and site drainage evaluation; archival research; graphic description; and development of a Historic Structures Report.\textsuperscript{123} Excerpts from the CAP report, including the \textit{Executive Summary} and \textit{Elements in Development of a Plan for Stabilization}, are attached as \textit{Appendix C}.

In response to the CAP report, photogrammetric survey work to record the ruin’s exterior elevations began in December 2005 (Figure 23). With funding from the Virginia General Assembly, private grants and donations, the effort produced “an important benchmark for monitoring the condition of the ruin and making plans for further stabilization.”\textsuperscript{124}

During 2006 and 2007, additional technical studies were undertaken by the Mesick-lead consulting team. Meanwhile, the foundation has begun fundraising

\textsuperscript{122} Hicks, Hilarie. Interview by author, 9 April 2008.
\textsuperscript{123} Rosewell Foundation, Inc. “Legislature OKs $45,000 for Rosewell Study.” \textit{The Rosewellian Newsletter}, (Spring 2005). 1, 10.
efforts that will support implementation of preservation treatment proposed by the pending Preservation Plan, scheduled to be released in 2008.

**Old Governor’s Mansion ruins, Barboursville, Virginia**

The Old Governor’s Mansion was built in 1822 and designed by Thomas Jefferson for Virginia Governor James Barbour. The Palladian mansion featured a unique octagon-shaped drawing room, and was destroyed by accidental fire on Christmas Day 1884.125

Preservation activities associated with the Barboursville ruin began with its listing on the Virginia Landmarks Register in September 1969, and on the National Register of Historic Places in November of the same year.126 The National Register for Historic Places Nomination Form requesting designation of the Barboursville ruin is attached as *Appendix D*.

In a 1978 letter to the Virginia Historic Landmarks Commission, Associate Professor Mario di Valmarana, from the University of Virginia’s College of Architecture, proposed structural stabilization as a treatment for the ruins (Figure 24). In the letter he requested funding for the project through the state’s Heritage Conservation and Recreation Service grants-in-aid program, and pledged the services of a team composed of faculty and students from his institution.127 According to a Completion Report created by the Virginia Historic Landmarks Commission, the

Figure 24. Photographic documentation of the Old Governor’s Mansion ruins prior to stabilization (Created for the Virginia Landmarks Register and available at http://www.dhr.virginia.gov/registers/Counties/Orange/068-0002_Barboursville_VLR_4th_edition.jpg; Accessed May 2008).
project was finished by March 1984. A portion of the Completion Report is included within this document as Attachment E.

The stabilized ruins are now owned by Barboursville Vineyards, operated by the Zonin family, who “paid $25,000 for a major overhaul of the mansion’s brick foundation in 1982.” In conjunction with vegetation removal, the effort included the addition of steel reinforcement (Figure 25) and fencing to prevent visitors from climbing on the ruin.

The ruin may be publicly visited as a feature of the winery tour, but it is also leveraged as a marketing device that differentiates the destination and its products. According to an article published in Preservation Online on May 2, 2003, “This symbiotic relationship translates to more dollars for renovation and upkeep on properties and more tourists for vineyards that pack a historical punch.” The practice is not uncommon in the Virginia wine country, with several vineyards capitalizing on the historical resources associated with their sites. At Barboursville, their wine bottles bear labels that feature an etching of the ruins and the words “1814 Barboursville Ruins – Virginia Historic Landmark” (Figure 26).

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132 Ibid.
Figure 25. Column of the Old Governor’s Mansion at Barboursville Vineyards, with steel reinforcement (Photo by J. Ruck, April 2008).
Figure 26. Barboursville Vineyards wine bottle label, including illustration of the Old Governor’s Mansion ruins (Photo by J. Ruck, April 2008).
Conclusion

Based on the Secretary of the Interiors Standards for the Treatment of Historic Properties, the respected opinions of professional historic preservationists, and information gathered during visitation to case study sites, interviews with associated staff and subsequent case study-related research, ruin stabilization seems to be the preservation treatment that most readily serves the goal of articulating an integrated historical-environmental message through interpretation of the ruins at Java Plantation. Moreover, in addition to serving as models for the implementation of ruin stabilization, the case study sites described herein provide examples of many strategies and practices which can be employed at Java Plantation to successfully serve both public history and environmental conservation education objectives.
Chapter 6: Recommendations

Based on the site’s history of land use, the Chesapeake Bay region’s environmental history, precedent set for ruin interpretation, and modern acceptance of ruins as symbolic devices, it is reasonable to conclude that development of an interpretation strategy which integrates public history and environmental conservation messages is relevant, and stabilization of the ruin at Java Plantation for this purpose is justified.

It is natural to progress from acknowledging the value of stabilizing and interpreting the ruins at Java Plantation, to contemplating the feasibility of such endeavors. For this effort, the case study sites – Dungeness at Cumberland Island, GA, Rosewell in Gloucester, VA, and the Old Governor’s Mansion in Barbourville, VA – offer examples of documentation, planning and management activities that may serve to guide the future preservation action at Java Plantation.

Documentation

Each of the three case study sites is listed on the National Register of Historic Places, and both Dungeness and Rosewell have been documented through the Historic American Buildings Survey (HABS) program. While the ruins at Java Plantation are included in the Maryland Inventory of Historic Properties, they are not listed on the National Register of Historic Places, and they have not been documented with HABS photography, measured architectural drawings, or written report.

Listing on the National Register of Historic Places provides recognition that a property is of significance to the Nation, the State, or the community, and entitles the property to be considered for protection under Section 106 of the National Historic Preservation Act. Java Plantation would likely be eligible for this recognition, and associated protection, based on the fact that it meets two of the four criteria established for evaluating a site’s potential for listing. Java Plantation includes archaeological resources that “have yielded, or may be likely to yield, information important in prehistory or history” (Criterion D). Furthermore, because Java Plantation is a site that exemplifies the environmentally harmful agricultural land use history of the Chesapeake Bay region, it is “associated with events that have made a significant contribution to the broad patterns of our history” (Criterion A).

Meanwhile, HABS documentation offers an opportunity to preserve essential information about historic resources so that, if physical fabric is lost, there is a permanent record, archived by the Library of Congress, to serve as a baseline for conservation treatment.

Both of these programs are administered through the National Park Service. Additional information regarding National Register listing is available at http://www.nps.gov/history/nr/about.htm, while information regarding the HABS program can be accessed at http://www.nps.gov/history/hdp/index.htm. National Register listing and HABS documentation are both important preliminary steps to

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137 Ibid.
implementing preservation treatment and should be undertaken at the Java Plantation site immediately.

**Planning**

Thorough planning is essential to successful action. Thus, the Rosewell Foundation, Inc. participated in the Conservation Assessment Program (CAP), a process which engaged the professional skills of conservation consultants to evaluate historic resources and provide a formal Condition Assessment. While formal participation in CAP is not necessary for preserving the ruins at Java Plantation, a planning activity that draws on the professional assessment skills of conservation consultants is imperative. The Maryland Historical Trust maintains a list of consultants that provide professional conservation services for projects in Maryland. This list is available at http://www.marylandhistoricaltrust.net/techasst.html.

Formal conservation evaluation is a necessary activity in the preservation process given that, as in the case of Rosewell, guidance provided through Condition Assessment supports the development of a formal Preservation Plan, which is used to direct preservation treatment of historic resources. Creation of a formal Preservation Plan can be an important step toward facilitating consistent, responsible historic resource stewardship over time. These plans often provide statements of purpose and philosophical approach; identify goals, objectives, issues, threats and opportunities; enumerate the sites historic resources; summarize the site’s history and significance; and recommend strategies for preservation treatment.
Condition Assessment is not the only planning effort that contributes to the development of a site’s Preservation Plan. Precursory planning steps associated with the National Park Service’s effort to stabilize the Dungeness Ruins included evaluation of proposed conservation treatments during a Value Analysis Workshop, and through the development of an Environmental Assessment report. After conservation treatments were selected, the National Park Service also created a Stabilization Project Manual, which included technical specifications to guide the planned conservation work.

Management

Each of the three case studies presented within this report illustrates a unique form of site management – Dungeness is owned and operated by the National Park Service, Rosewell is owned by the Gloucester Historical Society, but managed by the Rosewell Foundation, Inc., and the Old Governor’s Mansion is owned and administered by Barboursville Vineyards. Given the proposed integration of historical-environmental interpretation for Java Plantation, it seems a cooperative management arrangement between the archaeologists and historians of Anne Arundel County’s Lost Towns Project, and the environmentalists and SERC modeled after the arrangement at Rosewell would be prudent. Development of a non-profit foundation, similar to the Rosewell Foundation, Inc., may be a practical way to facilitate balanced participation among key stakeholders, and may make the ruins at Java Plantation eligible for funding opportunities that would typically be denied to a federally owned
property. This arrangement would also successfully allow for continued public archaeology activities at Java Plantation by the *Lost Towns Project*.

Continued archaeological investigation at Java Plantation is important, not only for the collection of additional information about the past, but also as a method for garnering public interest in both the historic and environmental education opportunities currently available at the site.

In addition, formal incorporation of the Java Plantation ruins as a featured pointed of interest on the Java History Trail is an important measure for enhancing physical connectivity between the existing trail and the ruins. This effort may include interpretive signage near the ruins that is consistent with what can be found along the trail. This effort would better enable SERC to leverage the Java Plantation ruin as a unique feature of its landscape. The ruin offers SERC an opportunity to differentiate its program from the offerings of other environmental public education facilities in the Chesapeake Bay region in that same way that Barboursville Vineyards uses the Old Governor’s Mansion ruins as a marketing tool to distinguish their destination from other Virginia vineyards.

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<th>Table 1. Recommendations Summary</th>
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<td><strong>Documentation</strong></td>
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<td>• HABS drawings, photography and description</td>
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<td>• Collaboration among SERC education and <em>Lost Towns Project</em> public archaeology efforts</td>
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<td>• Enhancement of physical connectivity between SERC Java Heritage Trail and ruins at Java Plantation</td>
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</table>
With the recommendations provided within this report as a starting point, stakeholders may need to undertake additional research to successfully engage the services of a professional historic resource conservation consultant, to explore the process by which a non-profit foundation would be created, and to identify potential funding sources. While these undertakings may require significant investment of resources – time and financial – the benefits will substantially out-weight the costs in many ways.

In his book, Where We Belong: Beyond Abstraction in Perceiving Nature, Paul Shepard writes that, “it is unfortunate that, while most aesthetic histories probe the importance of the ruin in the eighteenth and nineteenth centuries, with its sense of the sublime progression of time, there has been very little study of its ecological context.” Through the development of an integrated historical-environmental interpretation of the ruins at Java Plantation, there is a potential to fill this gap in cross-disciplined scholarship.

Interpretation of this site can serve as a model to both fields – historic preservation and environmental conservation – and provide an example for the successful integration of natural and cultural resource protection that draws on the combined efforts and diverse expertise of a variety of professional perspectives. In doing this, we may be able to provide public education experiences that inspire and engage audiences to comprehend the complex, interdependent relationship that exists between natural and cultural resources.

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If we aspire to change present-day behaviors that are not environmentally sustainable, we must endeavor to understand the cultural heritage upon which those destructive behaviors were built. Furthermore, in order to derive the most meaning from historic and cultural resources, our sensitivity to the environmental context within which those resources exist must increase.

With these ideals in mind, the ruins at Java Plantation can serve a contemporary purpose by standing as a symbolic artifact that represents the site’s past in a way that enables us to talk about the environmental conservation issues that concern us today, and offers us an opportunity to inspire more responsible stewardship of our whole environment – natural and man-made – in the future.
Appendix A: Excerpts from the Dungeness Mansion Historic American Buildings Survey (HABS) Documentation

Dungeness (Carnegie Family Mansion)  
South end of Cumberland Island  
Camden County, Georgia

HABS No. GA 2160

PHOTOGRAPHS
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey  
National Park Service  
Eastern Office, Division of Design and Construction  
120 South Third Street  
Philadelphia 6, Pennsylvania
4. Porches: Front porch northeast side; large living porch southwest side; service porch southeast end. All porches are covered. Concrete steps lead up to them from grade. Low retaining walls define raised greensward about porches northeast and southwest sides. Sunken carriage porch beneath service porch, southeast end.

5. Chimneys: Six of red brick common bond; one at center of southwest facade has random range ashlar stone bottom half.

6. Openings:
   a. Doorways and doors: Wood framed openings; wood panel doors with glazing.

7. Roof:
   a. Shape, covering: Complex hip roof slightly flared over eaves. Wood frame with wood shingles on wood sheathing.
   c. Dormers: Several, hipped and shed

8. Tower: Five-story tower over entrance. First four stories of random range ashlar stone.

C. Technical Description of Interiors:

1. Floor plans: Two and one-half stories, modified "H" plan


D. Site:

1. General setting and orientation: Front of house faces northeast. Seaview on Cumberland Island is a flat, lush, little-disturbed, semi-tropical coastal island with broad, beautiful beaches.

2. Enclosures: Free standing ornamental entrance wall on either side of entrance drive, northeast side.

3. Outbuildings: Large recreation building with swimming pool, game rooms, etc. Stables, water tower, barns, tenant houses, etc. General Nathaniel Greene cottage about 100' to northwest.

4. Walks: None. Several oyster shell roads.
5. Landscaping: Elaborate planting - shrubs, trees, many palms - all now growing wild.

Prepared by Philip E. Gardner - October 1958
Architect, National Park Service
Appendix B: Excerpts from the Dungeness Ruins Stabilization Project Manual

Prepared for:
The United States Department of the Interior
National Park Service
Southwest Region

Prepared by:
Starkey Barker Close & Associates, Inc.
Atlanta, Georgia

Completion Documents
January 2006
Cumberland Island National Seashore (CUIS) - Stabilization of Dungeness Ruins

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(See NPS Contracting Officer)

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SECTION 04911 - BRICK MASONRY REPAIR AND REPLACEMENT

1 PART - GENERAL

1.1 SUMMARY

A. Section includes restoration of brick as follows:
   1. Repairing brick masonry, including replacing damaged units and
      removing and replacing units at interior wythe and substrate
      repairs.
   2. Products installed but not supplied under this section:
      1. Masonry Mortar as specified in Section 04061
      2. Brick Masonry as specified in Section 04211

B. Related sections include the following:
   1. Section 04061 - Masonry Mortar
   2. Section 04211 - Brick Masonry
   3. Section 04916 - Repointing with Cement-Lime Mortar

1.2 REFERENCES

A. Except as modified by the Project Specifications, applicable portions
   of the following reference standards shall govern the work. All
   standards latest edition as of the date of the Specifications:
   1. Mortar
      a. American Society for Testing and Materials (ASTM)
            Brick and Structural Clay Tile
      b. Brick Institute of America (BIA)
         1. BIA Technical Notes 1 - All-Weather Construction
      c. American Concrete Institute (ACI)
         1. ACI 530.1/ASCE 6/TMS 602 - Specification for Masonry
            Structures

1.3 SUBMITTALS

A. General: Submit product data in accordance with the requirements of
   Section 01300.

1.4 QUALITY ASSURANCE

A. Contractor Qualifications: Engage an experienced masonry restoration
   firm to perform work of this Section. Demonstrate that firm has
   completed work similar in material, design, and extent to that
   indicated for this Project with a record of successful in-service
   performance.
   1. Field Supervision: Maintain experienced full-time supervisors on
      Project site during times that masonry restoration is in
      progress. Do not change supervisors during Project except for
      causes beyond the control of the Contractor.
   2. Workers and Installers: Minimum two (2) years experience in
      masonry construction. Fully supervise apprentices with an
      experienced tradesperson.

B. Source Limitations: Obtain each type of material for masonry
   restoration from one source with resources to provide materials of
   consistent quality in appearance and physical properties.

1.5 DELIVERY STORAGE AND HANDLING

A. Deliver, store and handle materials in such a manner as to prevent
   damage.

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1. Deliver masonry units to the site strapped together in suitable packs or pallets, or in heavy-duty cartons.
2. Deliver other materials to the site in the manufacturer's original and unopened containers, labeled with the manufacturer's name and type of products, and store unopened until required for use.

B. Store masonry units, accessories, and packaged materials on elevated platforms and protect from weather, moisture including condensation, and neglect. Comply with manufacturer's recommendations for minimum and maximum temperature requirements for storage. Remove damaged or otherwise unsuitable material from the site.

1.6 PROJECT CONDITIONS

A. Cold-Weather Requirements: When the air temperature is below 40 deg F, suspend work or comply with the requirements of ACI 530.1/ ASCE 6/ TMS 602 and BIA Technical Note 1, section on "Cold Weather Construction".

B. Hot-Weather Requirements: When the air temperature exceeds 100 deg F, or exceeds 90 deg F with a wind velocity greater than 8 miles per hour, suspend the work or comply with the requirements of ACI 530.1/ ASCE 6/ TMS 602 and BIA Technical Note 1, section on "Hot Weather Construction".

2 PART - PRODUCTS

2.1 MASONRY MATERIALS

A. Face Brick as specified in Section 04111 - BRICK MASONRY

B. Mortar as specified in Section 04061 - Masonry Mortar

2.2 CLEANERS TO REMOVE MORTAR AND DEBRIS FROM REPAIR WORK

A. Cleaning Solution
   1. "Enviro-Klean Mortar and Grout Remover" as manufactured by Prosoco, Inc.
   2. Solution: 1 pound cleaner to 1 gallon water
   3. DO NOT use products containing the following:
      a. Hydrochloric (muriatic) acid
      b. Hydrofluoric acid
      c. Ammonium bifluoride

B. Clean, potable water

C. Soft, natural bristle brush or roller
   1. For acidic cleaners use nylon bristle brushes.
   2. For neutral or alkaline cleaners, use natural bristle brushes.

D. Pressure rinsing equipment that can provide controlled application of heated water
   1. Allowable pressure: 400-600 psi, or as approved during cleaning mock-ups
   2. Water flow rate: 4 to 8 gallons per minute
   3. Water may be heated to 185 gallons per minute
   4. Use 15-40 degree stainless steel fan tips
   5. Equipment shall have no ferrous parts

3 PART - EXECUTION

3.1 PROTECTION

A. Protect persons, motor vehicles, surrounding surfaces of building

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being restored, building site, plants, and surrounding buildings from
harm resulting from Work.

B. Prevent mortar from staining face of surrounding masonry and other
surfaces.
1. Cover sills, ledges and projections to protect from mortar
droppings.
2. Keep wall area wet below Work area to discourage mortar from
adhering.
3. Immediately remove mortar in contact with exposed masonry and
other surfaces.

3.2 BRICK REMOVAL AND REPLACEMENT

A. At locations indicated on the Drawings or designated by the
Contracting Officer, remove bricks that are cracked, spalled,
displaced, or deteriorated. Perform brick removal also at areas where
required to perform liner wythe and substrate wall repairs. Prior to
beginning the Work, notify the Owner’s Representative and the
Contracting Officer of locations with damaged or deteriorated brick
that are not indicated for repair in the Contract Documents.
1. Carefully demolish and remove entire units and mortar from joint
to joint, without damaging the surrounding masonry, in a manner
that permits replacement with full-size units. Remove and replace
sound bricks that are damaged during the Work at no cost to the
Owner.

B. Support and protect remaining masonry that surrounds removal area.
Maintain adjoining construction in an undamaged condition.

C. Notify Contracting Officer of unforeseen detrimental conditions
including voids, cracks, bulges, displacements, and loose masonry
units in existing masonry backup, rotted wood, corroded metal, and
other deteriorated items.

D. Clean bricks surrounding removal areas by removing mortar, dust, and
loose particles in preparation for replacement.

E. Brick Installation
1. Install brick in accordance with BIA Technical Note 7B in the
bonding and coursing pattern of the existing brick.
2. If cutting is required, use a motor-driven saw designed to cut
masonry with clean, sharp, unchipped edges.
3. Lay the replacement brick as plumb and true to line as the
adjacent surfaces will permit; new brickwork shall be flush with
the existing.
4. Lay the replacement brick with completely filled bed, head, and
collar joints. Do not furrow the bed joints. Butter the ends with
sufficient mortar to fill the head joints, and shove into place.
5. Maintain the joint width for the replacement units to match the
existing joints.
   a. Tool the exposed mortar joints in the repair areas when the
      mortar is thumbprint hard, with a round jointer slightly
      larger than the width of the joint. Tool the joints to match
      the joints in the surrounding existing brickwork.
6. Do not pound the corners and jambs to fit stretcher units after
   they are set in position. Where an adjustment must be made after
   the brick has been placed, remove and replace the mortar.
7. Install mortar at the top and ends of the repair by packing
   layers of mortar into the joint with a tuckpointer’s tool.

3.3 FINAL CLEANING OF NEW MASONRY

A. Clean repair areas 24 to 48 hours after completion of the Work. This
work is for staining and debris from repair work.
1. Remove large particles of mortar from exposed masonry surfaces
   with wood paddles or scrapers. Do not use metal scrapers or
3.4 FIELD QUALITY CONTROL

A. A project representative of the Contracting Officer will periodically observe the progress and quality of the Work. Notify the project representative of any field conditions that deviate from the repair details. Allow the project representative use of the scaffolding, as needed, to observe the progress and quality of the Work.

B. Notify the Contracting Officer in advance of times when a lift device or scaffolding will be relocated. Do not relocate the lift device or scaffolding until the project representative has had reasonable opportunity to make observations of the work areas at the lift device or scaffold location.

C. Material Testing: Tests may be requested by Owner's Representative or the Contracting Officer after certification and delivery of the material. The cost of tests shall be paid by the Owner unless the test results indicate that material does not conform to the Specification requirements, in which case the Contractor shall pay the cost of testing.

END OF SECTION 04911
SECTION 04916 - REPOINTING WITH CEMENT LIME MORTAR

1. PARTICULARS - GENERAL

1.1 SUMMARY

A. Section includes repointing of brick and stone masonry as follows:
   1. Provide sample areas for repointing joints between brick and
      stone masonry units.
   2. Preparing and repointing mortar joint between existing masonry
      units.
   3. Pointing mortar joints between new and reinstalled masonry units.
   4. Partial repointing of masonry in areas designated on drawings.

B. Products installed but not supplied under this section:
   1. Masonry Mortar as specified in Section 04061

C. Related sections include the following:
   1. Section 04061 - Masonry Mortar
   2. Section 04211 - Brick Masonry
   3. Section 04311 - Brick Masonry Repair and Replacement

1.2 REFERENCES

A. Except as modified by the Project Specifications, applicable portions
   of the following reference standards shall govern the work. All
   standards latest edition as of the date of the Specifications:
   1. Mortar:
      a. American Society for Testing and Materials (ASTM)
         1. E2260 - Standard Guide for Repointing (Tuckpointing)
            Historic Masonry
      b. National Park Service Cultural Resources Preservation Briefs
      c. Secretary of Interior's Standards for the Treatment of
         Historic Properties

1.3 DEFINITIONS

A. In-situ mortar: Existing mortar including original setting mortar,
   pointing mortar and subsequently installed setting and repointing
   mortar.

B. Half Moon: Refers to the configuration of a head joint that has been
   prepared by removing only a portion of the mortar in the joint be
   inserting a grinder into the joint and removing the mortar from bed
   joints.

C. Original mortar: Mortar used in the original construction of the
   masonry wall.

D. Original pointing mortar: Mortar placed into a joint at the exposed
   outer edge from which fresh setting mortar is raked out during
   original construction of the masonry wall.

E. Point: The act of placing mortar into a properly prepared joint.

F. Repointing: The process of removal of hardened pointing mortar from
   between masonry units to a depth less than 1/3 of the depth of the
   units and placement of fresh mortar.

G. Setting mortar: Mortar used in original construction to act as a
   leveling and bonding agent for the masonry units.

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H. Thumbprint hard: Mortar that has reached an initial set. Time required to achieve initial set varies based on masonry characteristics, weather conditions and mortar.

I. Tuckpointing: Synonymous with repointing.

J. Low-Pressure Spray: 100 to 400 psi; 4 to 6 gpm.

K. Very Low Pressure Spray: less than 100 psi

1.4 QUALITY ASSURANCE

A. Mockups: Each Foreman to prepare mockups of repointing as follows to demonstrate aesthetic effects and qualities of materials and execution. Prepare mockups on existing walls under same weather conditions to be expected during remainder of the work.
   1. Provide a sample(s) of each type of mortar installation, of the following items. Samples shall be prepared by qualified personnel who will be performing the work. Before work commences, the sample shall be approved by the Contracting Officer. The approved sample shall be the standard for the work. Retain acceptable areas in undisturbed condition, suitably marked, during restoration as a standard for judging completed work.
      a. Sample should match existing profile.
      b. Sample should include a sample of cleaning mortar from masonry units adjacent to joints.
      c. Samples should cure a minimum of 14 days prior to Contracting Officer's approval.

   2. Take out joints in two separate areas approximately 36 inches high by 72 inches wide for each type of repointing required and repoint one of the two areas.

B. Field Quality Control: Work in place shall be subject to inspection testing. Work found to be unacceptable shall be replaced with new, acceptable work.

1.5 PROJECT CONDITIONS

A. Cold-Weather Requirements: When the air temperature is below 40 deg F, suspend Work or comply with the requirements of ACI 530.1/ ASCE 6/TMS 602 and BIA Technical Note 1, section on “Cold Weather Construction”.

B. Hot-Weather Requirements: When the air temperature exceeds 100 deg F, or exceeds 90 deg F with a wind velocity greater than 8 miles per hour, suspend the Work or comply with the requirements of ACI 530.1/ ASCE 6/TMS 602 and BIA Technical Note 1, section on “Hot Weather Construction”.

2. PART - PRODUCTS

2.1 MORTAR MATERIALS

A. Mortar as specified in Section 04061 - Masonry Mortar

2.2 CLEANERS TO REMOVE MORTAR AND DEBRIS FROM REPAIR WORK

A. Cleaning Solution
   1. “Enviro-Klean Mortar and Grout Remover” as manufactured by Promoco, Inc.
      a. Solution: 1 pound cleaner to 1 gallon water
   2. Approved equal
   3. DO NOT use products containing the following:
      a. Hydrochloric (muratic) acid
      b. Hydrofluoric acid

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c. Ammonium bifluoride

B. Clean, potable water

C. Soft, natural bristle brush or roller
   1. For acidic cleaners use nylon bristle brushes.
   2. For neutral or alkaline cleaners, use natural bristle brushes.

D. Pressure rinsing equipment that can provide controlled application of heated water
   1. Allowable pressure: 400-600 psi. or as approved during cleaning mock-ups
   2. Water flow rate: 4 to 8 gallons per minute
   3. Water may be heated to 185 gallons per minute
   4. Use 35-40 degree stainless steel fan tips
   5. Equipment shall have no ferrous parts

PART - EXECUTION

3.1 PROTECTION

A. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm resulting from work.

B. Prevent mortar from staining face of surrounding masonry and other surfaces
   1. Cover sills, ledges and projections to protect from mortar droppings.
   2. Keep wall area wet below work area to discourage mortar from adhering.
   3. Immediately remove mortar in contact with exposed masonry and other surfaces.

3.2 REPOINTING MASONRY

A. Rake out and repoint mortar joints to the following extent:
   1. Joints where mortar is missing or where they contain holes.
   2. Cracked joints where cracks can be penetrated at least 1/4 inch by a knife blade 0.027 inches thick.
   3. Cracked joints where cracks are 1/8 inch or more in width and of any depth.
   4. Joints where they sound hollow when tapped by metal object.
   5. Joints where the mortar is worn back 1/4 in. or more from the surface.
   6. Joints where they are deteriorated such that mortar can be easily removed by hand.
   7. Joints filled with substances other than mortar.

B. Do not rake out and repoint joints when not required.

C. Rake out joints as follows:
   1. Remove mortar from joints to depth of joint width plus 1/8 inch, but not less than 3/4 inch or not less than that required to expose sound, unweathered mortar. If unsound mortar extends more than 2 inches from the face of the units, work should not proceed and the Contracting Officer should be contacted immediately.
   2. Remove mortar from masonry joint surfaces to provide reveals with square backs and to expose masonry for contact with pointing mortar. Brush, vacuum, or flush joints to remove dirt and loose debris.
   3. Do not spall edges of masonry units or widen joints. Replace damaged masonry units as directed by Contracting Officer.
   4. Cut center of mortar bed joints using angle grinders with diamond-impregnated metal blades. Remove remaining mortar by hand with chisel and mallet. Strictly adhere to written quality-
control program. Quality-control program shall include provisions for demonstrating ability of operators to use tools without damaging masonry, supervising performance, and preventing damage due to worker fatigue.

a. "Half moons" created by grinders in head joints will not be allowed.

D. Notify Contracting Officer of unforeseen detrimental conditions including voids in mortar joints, cracks, loose masonry units, rotted wood, rusted metal, and other deteriorated items.

E. Masonry units adjacent to the repair areas that are damaged during the Work shall be removed and replaced at Contractor's expense and to the acceptance of the Contracting Officer.

F. Repoint joints as follows:
   1. Blow loose mortar out prepared joints with compressed air.
   2. Rinse masonry-joint surfaces with potable water to remove residual dust and mortar particles. Time rinsing application so that time of pointing, joint surfaces are damp but free of standing water. If rinse water dries, dampen masonry-joint surfaces before pointing.
   3. Apply pointing mortar first to areas where existing mortar was removed to depths greater than surrounding areas. Apply in layers not greater than 1/4 inch until a uniform depth is formed. Fully compact each layer thoroughly and allow it to become thumbprint hard before applying next layer.
   4. After deeper areas have been filled to same depth as typical areas, point all joints by placing mortar in layers not greater than 1/4 inch. Fully compact each layer and allow to become thumbprint hard before applying next layer. Where existing masonry has worn or rounded edges, slightly recess finished mortar surface from face of masonry to avoid wider joints. Take care not to spread mortar over edges onto exposed masonry surfaces or to featheredge mortar.
   5. When mortar is thumbprint hard, tool joints to match original appearance of joints. Remove excess mortar from edge of joint by brushing.
   6. Cure mortar by maintaining in thoroughly damp condition for at least 72 hours including weekends and holidays.
      a. Acceptable curing methods include covering with wet burlap and plastic sheeting, periodic hand misting, and periodic mist spraying using system of pipes, mist heads, and timers.
      b. Adjust curing methods to ensure that pointing mortar is damp throughout its depth without eroding surface mortar.

G. Where repointing work precedes building cleaning of existing masonry, allow mortar to cure at least 28 days before beginning cleaning work.

3.3 FINAL CLEANSING

A. Wipe excess mortar from masonry surface adjacent to mortar joint with a damp sponge or cloth. Note: Use only sponges or cloth that is damp, not wet or saturated. When tightly squeezed water should not run from damp sponge or cloth. Surface of the masonry shall not have visible accumulation of water immediately following cleaning. Do not touch or disturb newly installed pointing mortar during cleaning. Clean until mortar and mortar haze is removed from adjacent masonry surfaces.

H. Upon completion of repointing, thoroughly rinse surfaces of walls at repointed areas to remove dust and other surface residue from repointing process. Use only low pressure (less than 100 psi) water rinse. Rinse may be eliminated only with Contracting Officer's approval.

C. After mortar has fully cured, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or fiber brushes, and clean water, spray applied at low...
pressure.
1. Do not use metal scrapers or brushes.
2. Do not use acidic or alkaline cleaners unless specified herein or
   approved by Contracting Officer.

D. Wash adjacent woodwork and other non-masonry surfaces. Use detergent
   and soft brushes or cloths.

E. If mortar remains on the surface following repointing and initial
   clean-up the following procedure may be used if deemed necessary by
   the Contracting Officer:
   1. Apply cleaning agent to trial repair area to inspect its
      effectiveness and to determine any necessary revisions to
      cleaning procedures. The cleaning shall be performed in
      accordance with the following procedure:
      a. Do not clean masonry work with chemicals prior to 72 hours
         after masonry work or repointing is completed.
      b. Use specified cleaning solution in accordance with
         manufacturer's written recommendations.
      c. Pre-wet areas of wall to be cleaned prior to installation of
         cleaning solution.
      d. Do not allow cleaning solution to dry on the masonry.
      e. Remove large particles of mortar with wood paddles and
         scrapers before wetting the wall. Saturate the masonry with
         clean water and flush off all loose mortar and dirt. Scrub
         with a stiff fiber brush. Thoroughly wash off all cleaning
         solution, dirt and mortar crumbs using clean, low-pressure
         water.
      f. Do not damage masonry.
      g. Cleaning process shall be repeated as necessary.
      h. Thoroughly rinse wall. When wall is nearing the drying
         point, check pH of wall with test paper. Continue to rinse
         wall until pH is between 6 and 8.
      i. Rinse water, pressures and equipment shall conform with
         Masonry Cleaning Section.

3.4 FIELD QUALITY CONTROL

A. A project representative of the Contracting Officer will periodically
   observe the progress and quality of the Work. Notify the project
   representative of any field conditions that deviate from the repair
   details. Allow the project representative use of the scaffolding, as
   needed, to observe the progress and quality of the Work.

B. Notify the Contracting Officer in advance of times when a lift device
   or scaffolding will be relocated. Do not relocate the lift device or
   scaffolding until the project representative has had reasonable
   opportunity to make observations of the work areas at the lift device
   or scaffold location.

3.5 CLEAN UP

A. At the conclusion of repointing, remove all scaffolding and equipment
   used in the Work. Clean all debris, refuse and surplus of material
   and remove same from premises.

END OF SECTION 04916

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Appendix C: Excerpts from the CAP report “Conservation Assessment of the Ruins at Rosewell, Gloucester, Virginia”

Prepared for
The Rosewell Foundation
P.O. Box 1456
Gloucester, Virginia 23061

Prepared by
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Funded in part by a grant from Heritage Preservation, Inc.
EXECUTIVE SUMMARY

This assessment has been undertaken as one of the initial steps in the formulation of a master plan for the long term preservation of the site. The Foundation recognizes that before extensive stabilization work is commenced a careful, phased investigation should be devised and implemented. This investigation should at a minimum include the following components.

- Graphic recordation of the existing state of the ruins
- Comprehensive examination of the current condition of the entire masonry armature
- Testing and analysis of the composition of mortar and brick, as well as subsurface conditions
- Conducting further archeological testing within the footprint of the mansion
- Gathering archival research to document not only the architectural continuum, but also all previous interventions.

With this data at hand and a more comprehensive understanding thereby achieved, alternative recommendations for stabilization and public interpretation of the site can be developed for consideration.

Once procedures for stabilization and interpretation are adopted, vital work can commence. Hopefully, ready funding will allow expeditious accomplishments of these planning tasks. Incipient failures are manifest throughout the surviving masonry armature. Prudence suggests attention to remediation of these should not be long deferred. The several components of a comprehensive plan as outlined above need not—indeed, must not—extend over a long period of time. The current state of the brick masonry does not allow the luxury of a prolonged planning process. The “Blueprint for Preservation” (included here), as prepared by the Foundation, should be considered in monthly, rather than yearly, increments. The necessary research and investigative tasks should be commenced with vigor as soon as possible in a focused, coordinated and uninterrupted campaign.

On the assumption that funding for planning and the planning work itself will not be prolonged unduly, this assessment make no recommendation for immediate remedial work on the structure. Given the cursory nature of the inspection conducted as part of this report as well as the innumerable issues to be investigated before well formulated procedures are devised, it would be imprudent to make such recommendation at this point. Instead, where recommendations are outlined in this report, they are offered to suggest the variety of approached which might be further investigated.

The efforts of the last quarter of a century have done much to arrest the nearly unrelenting decline occurring over the course of the previous two centuries. Yet, at best, these have been holding actions designed to stave off ultimate collapse. Undoubtedly, several technical solutions for long-term preservation, devised during the planning process, will present a variety of options for stabilization. The ultimate direction this work takes will be determined by the intent of the Foundation—that is, how it chooses to present Rosewell to the public in the decades to come. Clearly, rendering the ruins as a more secure and intelligible experience for visitors will play a vital role in the enduring preservation of the site.
ELEMENTS IN DEVELOPMENT OF A PLAN FOR STABILIZATION

1. A photogrammetric survey utilizing a 3-D digital model of the ruins should be undertaken at the outset (before any scaffolding is erected about the walls). This will allow the preparation of precise CAD drawings of plans, sections and elevations. Consulting firms undertaking this work should be invited to the site to better define scope and project a cost to include in grand requests.

2. Provision for a means of access to all surfaces of the ruins will be necessary. This may require the erection of a scaffold (either in successive stages for access to both faces of the east, west and north walls or sufficient for comprehensive coverage all at once). Scaffolding needs should be analyzed to determine the expense of rental versus purchase. While scaffolding needs will be for a limited duration, during the initial phase, its use will be more prolonged during the course of stabilization work. Over the long-term inspection and repair work will undoubtedly be reoccurring activities requiring the further use of scaffolding. The use of various types of lifts in lieu of scaffolding should be explored; however, the great shifts in ground contour on the interior would seem to preclude the use of mobile lifts to gain access to inner surfaces.

3. Inspection of physical condition is probably best undertaken as a concurrent collaborative effort by the structural consultant, masons and architect. This should encompass a detailed visual inspection of all surfaces (after CAD drawings are in hand) accompanied by written notes on all findings and close-up digital photographs of all areas of concern. The use of instrumentation may be determined at this stage to further identify and quantify structural movements, internal stresses, moisture penetration, etc. Data loggers may be installed within the walls to facilitate long-term computer monitoring. The performance of both original and various subsequent restoration mortars should be observed and samples taken. The various methods used previously to cap the masonry (metal flashings, mortar washes, chimney canopies) should be evaluated for performance. The steel reinforcement structure, especially its anchorage where embedded in the walls, should be inspected for corrosion. Video inspection of the chimney flues may afford a close-up detailed means of assessing these otherwise inaccessible surfaces.

4. Mortar analysis is a difficult, complex undertaking, but the results of well conceived and executed testing will be an essential element in prescribing remedial treatment. To enable the formulation of a mortar mix(es) compatible with the original strength, porosity, plasticity and appearance, it will be necessary to identify the source of lime, aggregate, and any additions as well as any impurities found therein which may have influenced performance. The testing of historic lime mortars is an evolving science. (See Peter Ellis, The Analysis of Mortar: The Past 20 Years, 2002* and also refer to Scottish Lime Centre**.)

** found at: www.buildingconservation.com/articles/mortar/mortar.htm www.scotlime.org.uk
Once test results are available, the next challenge will be to reformulate a contemporary mortar, and test it by trial installations, before employing it in the stabilization work. (See Appendix C for further discussion of the issues involved in mortar analysis.)

5. A geotechnical investigation involving soil borings and laboratory testing will allow subsurface exploration and facilitate engineering analysis. The stratigraphy of the underlying soils, their characteristics (bearing capacity, porosity, etc) and existence of ground water (if any) will be better understood.

6. Archeological investigations may include digging of test pits and opening exploratory units to better ascertain subsurface conditions at the base of walls (i.e. inner face of the south foundation wall at west & west ends, as well as top & sides of vault) and throughout the basement level.
7. **Assessment of natural threats** should also be taken into consideration as potential forces to be addressed in any long-term preservation plan. Lightning protection may be a prudent precaution. At present, the lead coated copper claddings on the four large chimney caps are not grounded. Nor have the many sections of metal flashing capping openings been grounded. It is usually considered necessary to ground and electrically interconnect exposed areas of metal located about the exterior of a structure to neutralize electrical discharge. Similarly, earth tremors, excessive winds, and 100 year rain storms should be examined as posing ongoing threats to the integrity of the ruins.

8. **Water runoff & site drainage** pose ongoing impediments to long term preservation. Problems arising from moisture are continuous and enduring threats to the physical integrity of the surviving fabric. Periodic repairs contend with the effects of moisture action, but do not adequately address the control of water coursing over and under the ruins. During the planning phase several approaches to the control of water ought to be developed. These may range from the erection of protective shelter over the entire structure or to simply devising a better means of topping off walls, ledges, projections, etc.

9. **Archival research** should include a compilation of all previous stabilization efforts and establish a complete record of the architectural/landscape evolution of the site. A more comprehensive understanding of these aspects will serve to better inform recommendations both for stabilization work and development of an interpretative plan. This will enhance the public’s appreciation of Rosewell’s significance and enrich its first-hand experience of the remains.

10. **Graphic descriptions** utilizing three-dimensional views, detailed plans and elevations can be created by digital means after in-depth research data collected in several of the tasks described above become available. Graphic images will provide members of the planning team with valuable insights as to the configuration of the mansion at all levels while they are devising detailed stabilization schemes.

11. A **historic structure report** will form the proper conclusion to all the tasks outlined above. Through the consolidation and presentation of all the information generated into a single reference resource, a potent case will have been made for establishing anew the significance of the site. By setting forth detailed plans for stabilization and long-term preservation, the HSR will provide the Foundation with a most compelling means of gaining the necessary funding to undertake the work.

12. **Long range preservation objectives** ought to be evaluated as an essential part of the initial planning. The present approach will preserve the ruins for decades—not centuries—to come. Clearly, more extensive intervention could insure their survival into the very distant future. However, much of the allure of ruins resides in the impact of decay and desolation on the human imagination. While a protective shelter or more extensive reconstruction work could preserve their integrity over the longer term, much of the “romance” of the ruins would be compromised. The Foundation’s goals with respect to these concerns, if well set forth, will do much to inform the scope and direction the several investigations described above will assume.
Observations on Physical Conditions

During the course of a brief three hour reconnaissance of the masonry walls, the members of the survey team observed numerous problems evident in the historic masonry as well as in the contemporary interventions. For the most part, these were recorded in photographs some of which are included here with brief commentary.

Subsequent to this inspection in a meeting with Jack Peet and Lawrence "Cheetah" Waller, we gained further insights upon the ongoing repairs they have undertaken as restoration masons over the past two decades. In 2001, Jack Peet compiled a report of his visual inspection. This included reference to work previously completed and outlined suggestions for further repairs. Each area of concern was illustrated by a photograph.

It was not the intent of this assessment to present a survey of existing conditions, but rather as a preliminary to developing the preservation plan. This brief inspection allowed us to better understand the scope of the challenge faced by the Foundation in planning the work ahead. At the same time, we speculated as to the alternative courses repairs might pursue. Some of these speculations are included in the following descriptions. They should not be taken as specific recommendations, but may instead, generate wide ranging discussions during the planning phase concerning the nature and scope of future interventions. There is a widespread consensus among preservation professionals, that ruins should be left intact and untouched state with only consolidation and replacement of surviving fabric. In short, there is an abhorrence of all efforts which strive “to complete the story” and, thereby diminish the cultural integrity of the remains. All three of us are both mindful and generally supportive of such an approach, and yet the common sense of the situation leads one to suggest that selective reconstructions at Rosewell will probably be the most rational and sound means to achieve renewal strength and halt the acceleration of decay. This is particularly the case at window and door openings where falling lintels and arches together with lost jambs and sills have been and will continue to be one of the principal causes of collapse.
Appendix D: National Register Nomination form prepared for the Old Governor’s Mansion Ruins, Barboursville, VA

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**Form 10-900**

**UNITED STATES DEPARTMENT OF THE INTERIOR**

**NATIONAL PARK SERVICE**

**NATIONAL REGISTER OF HISTORIC PLACES**

**INVENTORY – NOMINATION FORM**

(Type all entries – complete applicable sections)

1. **NAME**
   - Common: Barboursville
   - AND OR HISTORIC: Barboursville

2. **LOCATION**
   - STREET AND NUMBER: .1 mi. E of Blue Run, .4 mi. NW of Rt. 777, .5 mi. S of intersection of Rt. 777 and 678.

3. **CLASSIFICATION**
   - CATEGORY (Check One):
     - District: [x]
     - Site: [ ]
     - Structure: [ ]
     - Object: [ ]
   - OWNERSHIP:
     - Public: [ ]
     - Private: [x]
     - Bath: [ ]
   - PUBLIC ACQUISITION:
     - In Process: [ ]
     - Being Considered: [ ]
     - Occupied: [ ]
     - Unoccupied: [x]
     - Restricted: [ ]
     - Preservation work in progress: [ ]
     - Unrestricted: [ ]

4. **OWNER OF PROPERTY**
   - OWNERS NAME: C. Francis Smithers
   - STREET AND NUMBER: Barboursville Farm
   - CITY OR TOWN: Barboursville
   - STATE: Virginia
   - CODE: 45
   - COUNTY: Orange
   - CODE: 137

5. **LOCATION OF LEGAL DESCRIPTION**
   - COURTHOUSE, REGISTER OF DEEDS, ETC:
     - Orange County Court House
   - STREET AND NUMBER:
   - CITY OR TOWN: Orange
   - STATE: Virginia
   - CODE: 45

6. **REPRESENTATION IN EXISTING SURVEYS**
   - TITLE OF SURVEY: Historic American Buildings Survey Inventory
   - DATE OF SURVEY: 1957
   - DEPOSITORY FOR SURVEY RECORDS: Library of Congress
   - STREET AND NUMBER:
   - CITY OR TOWN: Washington
   - STATE: District of Columbia
   - CODE: 08

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Virginia

45

Orange

137

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Until it burned on Christmas day, 1884, James Barbour's house at Barboursville stood essentially as completed circa 1822 from designs by Thomas Jefferson. Only two one-story side porches appear to have been later additions. Though large in scale, the house contained only eight principal rooms, the hall, drawing room, and dining room being two-story chambers. The entrance facade featured a projecting Roman Doric tetrastyle portico which covered the recessed front wall of the entrance hall. On the garden front, the walls of the octagonal drawing room projected into a similar portico, as at Monticello. The octagonal dome which Jefferson proposed in his drawing was omitted during construction; it is uncertain whether the Chinese lattice railing which appeared in Jefferson's drawing around the base of the roof was ever installed. Although the dining room had no chamber over it, Jefferson indicated a false window on the second floor level in order to keep the garden front symmetrical. This feature was omitted and consequently gave that side of the house an unbalanced appearance. Unfortunately, there is little evidence as to the appearance of the original interior architectural trim. One might assume that the two-story rooms were crowned by full entablatures as at Monticello.

During the fire of 1884 everything except the exterior brick walls, the interior masonry partitions, and the columns of the porticoes perished. Now much overgrown by vines, the ruins are maintained and are in generally sound condition.

To the north of the house are the two curious service buildings which now serve as the main residence for Barboursville. It is believed that these structures were built circa 1790 and were lived in by James Barbour until the main house was completed. As they are built on the slope of a hill, they appear as one story on the front with two-story columned galleries on the rear.

Barbour's estate has been known for its unusually large and fine boxwood which flourish on the grounds. A portion of the gardens were once surrounded by a serpentine wall similar to those designed by Mr. Jefferson for the University of Virginia.
In a letter dated March 29, 1817, James Barbour thanked his friend Thomas Jefferson for supplying him with designs for his new house. The designs were returned to Jefferson along with the letter by James Bradley, a carpenter, and Edward Ancel (?), a bricklayer, both of whom Barbour had employed to erect his house. Barbour intended the two workmen to study Monticello while on their errand and acquaint themselves with the character of Jefferson's architectural work.

As designed, Barboursville more nearly resembled Monticello than any other of Jefferson's works. However, the most striking parallel, the octagonal dome, was omitted (as Jefferson said it could be) during construction. Although in ruins, enough of Barboursville's walls remain so that they can be studied and compared with Jefferson's drawings. Had it survived as designed, Barboursville would undoubtedly rank as Jefferson's most important residential work beside Monticello, but even in its present state its significance as a relic of one of America's most distinguished architects is not diminished. Jefferson's drawings for Barboursville which include a plan and elevations of the entrance and garden front are preserved in the Massachusetts Historical Society.

Barboursville's architectural significance has often tended to overshadow the distinguished career of its first occupant. James Barbour (1775-1842), besides being an obvious patron of architecture, was a member of the Virginia Legislature from 1796 to 1812, and was Governor of the Commonwealth from 1812 to 1814. He was elected to the United States Senate in 1815, where he served until 1825, then becoming Secretary of War until 1828. From 1828 to 1829 he represented his country in England as Minister Plenipotentiary. He was chairman of the Whig National Convention which nominated William Henry Harrison in 1839, and for many years served as president of the Orange Humane Society. He is credited with having founded the Literary Fund of Virginia which long supported popular education in Virginia. Barbour lies buried in the family cemetery at Barboursville.
### Geographical Data

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### Form Prepared By

**Name and Title:** Staff, Virginia Historic Landmarks Commission, James W. Moody, Jr., Director

**Organization:** Virginia Historic Landmarks Commission

**Street and Number:** Room 1116, Ninth Street State Office Building

**City or Town:** Richmond

**State:** Virginia

**Code:** 45

### State Liaison Officer Certification

As the designated State Liaison Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service. The recommended level of significance of this nomination is:

- National
- State
- Local

**Name:**

**Title:** Virginia Historic Landmarks Commission

**Date:**

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I hereby certify that this property is included in the National Register.

**Chief, Office of Archeology and Historic Preservation**

**Date:**

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**ATTEST:**

**Keeper of The National Register**

**Date:**

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Appendix E: Virginia Historic Landmarks Commission
Completion Report for the Barboursville Stabilization

May. 9, 2008 1:19PM

Barboursville Preservation and Stabilization Project
Barboursville, Orange County, Virginia

51-11161
March, 1984
funding year 1980

Barboursville Corporation
P. O. Box F
Barboursville, Virginia 22923

TOTAL PROJECT COST:

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FEDERAL SHARE:

$15,531.00

FEDERAL SHARE EXPENDED:

$15,531.00

MATCHING FUNDS:

Barboursville Corporation
Private Funds and volunteers
Cash and donated services and labor, respectively
$10,000.00 and $37,529.00 respectively

University of Virginia School of Architecture faculty and students
Donated services
$6,500.00

PROJECT SUPERVISORS:

Call Hammerquist, Historical Architect, Virginia Historic Landmarks Commission.
Barboursville Preservation and Stabilization Project
Barboursville, Orange County, Virginia

Page 2

CERTIFICATION OF PUBLIC BENEFIT

The Virginia Historic Landmarks Commission certifies that a deed covenant providing for proper maintenance and administration of the property and guaranteeing public visitation rights for 50 years has been executed, is on file in the offices of the Commission, and is available for review by the National Park Service.

CERTIFICATION OF CONFORMANCE:

The Virginia Historic Landmarks Commission certifies that project work has been completed in conformance with the Secretary of the Interior's Standards for Historic Preservation Projects.

PROJECT REPORT:

History:

Until it burned on Christmas day, 1884, James Barbour's house at Barboursville stood essentially as completed circa 1822 from designs by Thomas Jefferson. Only two one-story side porches appear to have been later additions. Though large in scale, the house contained only eight principal rooms, the hall, drawing room, and dining room being two-story chambers. The entrance facade featured a projecting Roman Doric tetrastyle portico which covered the recessed front wall of the entrance hall. On the garden front, the walls of the octagonal drawing room projected into a similar portico, as at Monticello.

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Barboursville Preservation and Stabilization Project
Barboursville, Orange County, Virginia

Page 3

Historical Society.

PRESERVATION PROJECT:

The purpose of the grant-assisted project at Barboursville was to stabilize the ruins of the mansion. As the site had been neglected for approximately twenty years, vegetation had encroached upon the walls. The removal of the vegetation was the first step necessary. The area was treated with defoliants.

In order to stabilize the ruins, two structural steel frames connected by tension cables were inserted between the freestanding walls. This was done to check the slow collapse of the walls in the east and west directions. The steel was primed and painted to prevent corrosion.

Loose debris and vegetation were removed from the tops of the walls. The walls were coped with pre-cast concrete sections to prevent further water infiltration. Appendix A contains proposals of various coping materials which led to the choosing of pre-cast concrete.

The existing stone lintels were reinforced behind and underneath with steel angles grouted to the stone. Several missing wooden lintels were replaced with pressure treated Grade A yellow pine, matching the size of the originals. Gaps in the brickwork above failed lintels were filled with original brick from the site. The metal angles were primed and painted to prevent corrosion.

The mortar formula used to repoint brickwork was:
One part C247 A Flamingo
One part regular Flamingo
One-half part lime
Four parts washed sand

The mortar formula used for the coping was:
One part portland cement
One-half part lime
Two parts washed sand
Bibliography


