ANNUAL REVIEW OF CULTURAL RESOURCE INVESTIGATIONS BY THE SAVANNAH RIVER ARCHAEOLOGICAL RESEARCH PROGRAM

FISCAL YEAR 2017

Prepared by
staff of the

SAVANNAH RIVER
ARCHAEOLOGICAL RESEARCH PROGRAM

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SAVANNAH RIVER ARCHAEOLOGICAL RESEARCH PROGRAM
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INTRODUCTION

The United States Department of Energy Policy 141.1 (USDOE 2001; hereafter referred to as DOE) identifies 24 major laws, regulations, executive orders, and guidance that apply to cultural resource management (CRM). Cultural resources include archaeological sites and artifacts, historical structures, and natural resources and sacred objects of importance to American Indians. Management responsibilities of the DOE include identification, evaluation, and protection of archaeological and historical sites, artifact curation, and other mitigation measures.

Since 1990, CRM compliance at the Savannah River Site (SRS) has been based on a programmatic memorandum of agreement (PMOA) among the United States Department of Energy-Savannah River Operations Office (DOE-SR), the South Carolina State Historic Preservation Office (SCSHPO), and the Advisory Council on Historic Preservation (ACHP). Through this PMOA, the DOE commits to conduct an integrated CRM program at the SRS that features research, public outreach, and compliance components. In return, the SCSHPO waives most DOE project-by-project compliance requirements that fall under Section 106 of the National Historic Preservation Act (NHPA) in favor of one annual compliance report. The PMOA also serves to meet general DOE regulatory responsibilities under Section 110 of the NHPA, Archaeological Resources Protection Act (ARPA), Native American Graves Protection and Repatriation Act (NAGPRA), and various other CRM laws and regulations.

The Savannah River Archaeological Research Program (SRARP) provides the DOE with the technical expertise that enables the DOE to meet its PMOA commitments. The specific elements of the SRARP's compliance, research, and outreach efforts are identified within a cooperative agreement between the DOE and the South Carolina Institute of Archaeology and Anthropology-University of South Carolina (SCIAA-USC). The cooperative agreement also allows for compliance work to be performed using an SRS-specific archaeological survey and testing model that reduces compliance costs. The result has been quicker, more cost-efficient CRM reviews of individual SRS projects.

The following section (Part I) regarding CRM contains the results of Fiscal Year 2017 (FY17) surveys, in addition to updates on other compliance-related activities. According to the PMOA (SRARP 1989:185), annual survey results are provided in summary and tabular form in this report. Detailed information regarding artifact assemblage and environmental data for new and previously recorded sites located during FY17 is available upon request from the SRARP.

Research activities of the SRARP are summarized in Part II and include prehistoric, historic, and geoarchaeological studies conducted on the SRS and in the surrounding region. An extra-local perspective is necessary for understanding the effects of regional processes on local conditions and, hence, enables the more effective management of the cultural resources on the SRS.

Public education activities of the SRARP are summarized in Part III, which highlights the heritage education program, volunteer excavations, and involvement with avocational archaeological groups. An Appendix lists all professional and public service activities of the SRARP staff.

MANAGEMENT SUMMARY

The SRARP continued through FY17 with the DOE to fulfill a threefold mission of CRM, research, and public education at the Savannah River Site (SRS). Although the DOE's fiscal year begins October 1 and ends September 31, this report covers the CRM compliance, research, and outreach activities conducted by the SRARP from September 1 to August 31 in order to have the report to the SCSHPO by October 31 as specified in the PMOA. Due to the DOE security concerns, this report does not contain information (exact project area size, map scales, etc.) typically contained in standard archaeological documents.

In FY17, 191.35 acres of land on the SRS were investigated as part of 30 field reconnaissance and testing surveys resulting in the excavation of 2,747 Shovel Test Pits (STPs) for CRM. Eighteen newly discovered sites were documented, and eight previously recorded sites were revisited. The SRARP site file records were updated accordingly. Geographic Information System (GIS) and Global Positioning System (GPS) technology was incorporated into all compliance projects to aid in maintaining and processing survey and site location information. In addition, SRARP staff maintained continuous support to the DOE's Cold War Cultural Resource Management Plan (CRMP) efforts through participation on DOE's Cold War Artifact Selection Team and at Heritage Tourism Board meetings.

Research conducted by SRARP personnel during FY17 was published in two professional articles, two reports, and one popular literature article. The SRARP staff presented research results in six papers and posters at professional conferences and peer reviewed two journal articles or books for publication. Staff members also held 16 offices and appointments to committees in various educational, avocational, and professional organizations. Four research projects involving excavation, laboratory analysis, museum, and archival study were conducted. Two grants were acquired to support both on- and off-site research. Employees served as consultants on 13 projects in off-site CRM and research activities.

In the area of heritage education, the SRARP continued its activities in FY17 with a full schedule of classroom education, public outreach, and on-site tours. Forty-eight presentations, displays, and tours were provided for schools, civic groups, and environmental and historical awareness day celebrations. And finally, SRARP members chaired or served on six thesis and dissertation committees and taught five anthropology courses at the University of South Carolina.

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PART I. CULTURAL RESOURCE MANAGEMENT

RESULTS OF FY17 SITE USE AND TIMBER COMPARTMENT SURVEYS

Christopher R. Moore, Tammy F. Herron, and Keith Stephenson

Survey Coverage

Archaeological survey of Site Use Permit Application and Timber Compartment Prescription projects by SRARP staff continued through FY17 according to procedures outlined in 1990 (SRARP 1990:7-17). During FY17, archaeological reconnaissance and survey were conducted on 30 proposed projects[1] through the subsurface inspection of 191.35 acres with a total of 2,747 Shovel Test Pits (STPs) excavated. Altogether, 18 new sites were documented and delineated, and 8 previously recorded sites were revisited during FY17. Based on the level of survey sampling conducted at all new and previously recorded sites, adequate information was not obtained for most sites to allow National Register of Historic Places (NRHP) eligibility determinations. As such, these sites will be completely avoided by SRS contractors during any land-disturbing activities. Anytime these sites are threatened by future proposed undertakings, the SRARP will conduct the appropriate level of archaeological investigation to resolve eligibility determinations. Finally, 13 isolated artifact occurrences were recorded during FY17 surveys. The locations of all Site Use Application and Timber Compartment surveys are shown in Figure I-1. Summary information concerning specific aspects of all new and existing sites, as well as isolated artifact occurrences, is provided in Table I–1 to Table I–4.

Over the past 25 years, the SRARP has conducted compliance survey according to a predictive locational model for archaeological sites, as established in the revised Archaeological Resource Management Plan (ARMP) (SRARP 2013:39-54, 71-79, Appendix D). This Management Plan was developed in agreement with the DOE, the SCSHPO, and the ACHP. The predictive model, with refinements, has proven thus far to be a scientifically sound and efficient method with which to locate and manage archaeological resources on the SRS. Additionally, the predictive model is a cost-effective means of conducting survey—especially in times of federal government financial reductions.

For these reasons, the development of predictive models is encouraged by regulatory guidance to federal landholders who manage archaeological resources on a daily basis. In using the predictive model, the SRARP surveys are meeting the inventory and management responsibilities outlined in Section 110 of the NHPA. If the undertaking could potentially impact archaeological sites, the SRARP follows a process that includes intensive, systematic, shovel test survey to delineate and evaluate the significance of any sites present. If a site that is considered eligible or has not been evaluated cannot be avoided, the SRARP consults with SCSHPO to formulate an evaluation and mitigation plan.

[1] A field survey project is defined as subsurface inspection for a DOE Site Use Application or all subsurface investigations within a USFS-SR Timber Compartment Prescription.

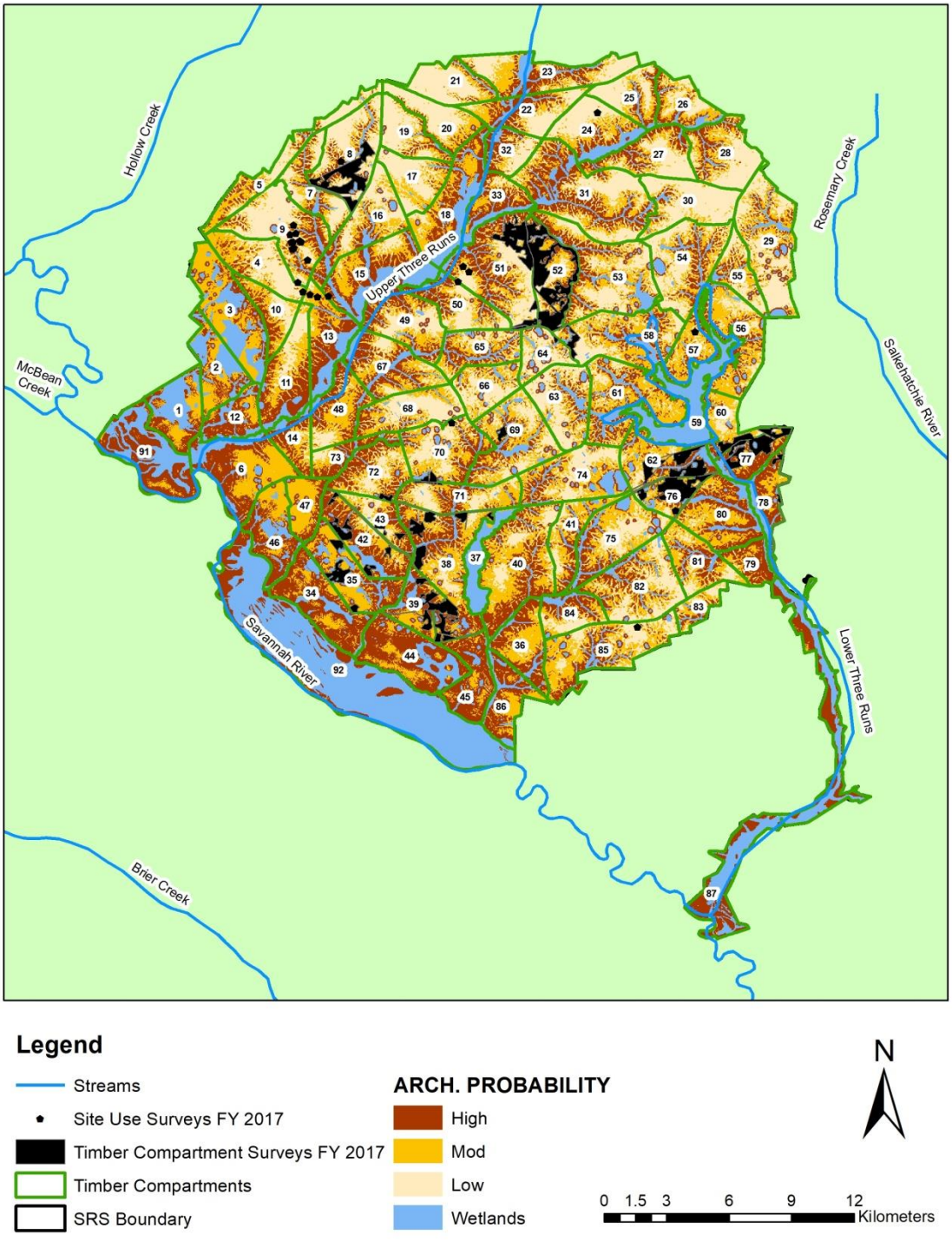

Figure I-1. Location of FY17 project areas on the SRS.

Table I–1. Data on the Extent, Depth, and Content of New Sites Recorded, FY17.

STATE SITE NUMBER	SURVEY PROJECT	SURVEY METHOD	SITE SIZE (m)	SURF. VIS. (%)	SITE DEPTH (cmbs)	#. STPs	POS. STPs	COMPONENTS
38BR1386	TC 76	Full Coverage	165 X 165	1-25	80	108	42	20th c.
38BR1387	TC 78	Pedestrian	25 X 10	26-50	Unk	0	0	20th c.
38BR1388	TC 52	Purposive	200 X 105	26-50	20	74	5	20th c.
38BR1389	TC 51	Purposive	130 X 80	26-50	50	73	17	20th c.
38BR1390	TC 38	Full Coverage	10 X 10	1-25	30	7	1	Unk. Preh.
38BR1391	TC 52	Purposive	110 X 80	51-75	40	49	9	Unk. Preh., 20th c.
38BR1392	TC 76	Full Coverage	200 X 50	26-50	40	84	11	20th c.
38BR1393	TC 62	Full Coverage	85 X 70	26-50	70	48	13	20th c.
38BR1394	n/a	Opportunistic	10 X 10	26-50	10	9	1	20th c.
38BR1395	TC 38	Full Coverage	55 X 20	51-75	Surface	18	0	20th c.
38BR1396	TC 38	Full Coverage	75 X 60	1-25	40	40	11	20th c.
38BR1397	TC 39	Full Coverage	185 X 115	1-25	60	100	16	Unk. Preh., 20th c.
38BR1398	TC 51	Full Coverage	105 X 60	1-25	60	56	13	19th c., 20th c.
38BR1399	TC 39	Full Coverage	55 X 45	1-25	15	29	4	20th c.
38BR1400	TC 39	Full Coverage	40 X 30	26-50	50	22	4	Unk. Preh.
38BR1401	TC 39	Full Coverage	60 X 40	51-75	20	30	6	20th c.
38BR1402	TC 42	Full Coverage	50 X 35	1-25	40	31	6	18th c., 19th c.
38BR1404	TC 35	Purposive	70 X 55	26-50	10	34	4	20th c.

Table I–2. Data on the Extent, Depth, and Content of Site Revisits, FY17.

STATE SITE NUMBER	SURVEY PROJECT	SURVEY METHOD	SITE SIZE (m)	SURF. VIS. (%)	SITE DEPTH (cmbs)	# STPs	POS. STPs	COMPONENTS
38AK590	SU 3304	Pedestrian	220 X 180	76-100	40	97	23	EA, LA, 18th - 20th c.
38BR231	TC 52	Full Coverage	300 X 150	26-50	120	99	37	MA, LA, EW, MW, LW, Miss.
38BR236	TC 76	Full Coverage	590 X 350	26-50	110	95	37	MA, LA, MW, LW, Miss., 20th c.
38BR313	TC 38	Full Coverage	195 150	1-25	80	87	20	Unk. Preh., 20th c.
38BR558	TC 38	Full Coverage	45 X 30	26-50	50	24	2	19th c., 20th c.
38BR647	TC 77	Purposive	100 X 100	26-50	40	66	16	20th c.
38BR771	TC 38	Full Coverage	120 X 50	26-50	30	51	13	19th c., 20th c.
38BR845	TC 52	Purposive	90 X 60	1-25	40	40	2	20th c.

Recon. – Reconnaissance
SU – Site Use
STPs – Shovel Test Pits
EA – Early Archaic
MA – Middle Archaic
LA – Late Archaic
EW – Early Woodland
MW – Middle Woodland
LW – Late Woodland
Miss. – Mississippian
Unk. Preh. – Unknown Prehistoric
Unk. – Unknown

Table I–3. Evaluation of New and Previously Recorded Sites, FY17.

STATE SITE NUMBER	SURVEY PROJECT	SURVEY METHOD	SITE COMPONENTS	SITE INTEGRITY	NRHP ELIGIBILITY	FURTHER WORK
38AK590	SU 3304	Pedestrian	EA, LA, 18th - 20th c.	Moderate	Unevaluated	Testing
38BR231	TC 52	Full Coverage	MA, LA, EW, MW, LW, Miss.	Good	Eligible	Testing
38BR236	TC 76	Full Coverage	MA, LA, MW, LW, Miss., 20th c.	Good	Unevaluated	Testing
38BR313	TC 38	Full Coverage	Unk. Preh., 20th c.	Poor	Not Eligible	None
38BR558	TC 38	Full Coverage	19th c., 20th c.	Moderate	Unevaluated	Testing
38BR647	TC 77	Purposive	20th c.	Moderate	Unevaluated	Testing
38BR771	TC 38	Full Coverage	19th c., 20th c.	Poor	Not Eligible	None
38BR845	TC 52	Purposive	20th c.	Moderate	Unevaluated	Testing
38BR1386	TC 76	Full Coverage	20th c.	Poor	Not Eligible	None

38BR1387	TC 78	Pedestrian	20th c.	Moderate	Unevaluated	Testing
38BR1388	TC 52	Purposive	20th c.	Moderate	Unevaluated	Testing
38BR1389	TC 51	Purposive	20th c.	Poor	Not Eligible	Testing
38BR1390	TC 38	Full Coverage	Unk. Preh.	Poor	Not Eligible	None
38BR1391	TC 52	Purposive	Unk. Preh., 20th c.	Moderate	Unevaluated	Testing
38BR1392	TC 76	Full Coverage	20th c.	Poor	Not Eligible	Testing
38BR1393	TC 62	Full Coverage	20th c.	Moderate	Unevaluated	Testing
38BR1394	n/a	Opportunistic	20th c.	Poor	Not Eligible	Testing
38BR1395	TC 38	Full Coverage	20th c.	Poor	Not Eligible	Testing
38BR1396	TC 38	Full Coverage	20th c.	Poor	Not Eligible	Testing
38BR1397	TC 39	Full Coverage	Unk. Preh., 20th c.	Moderate	Eligible	Testing
38BR1398	TC 51	Full Coverage	19th c., 20th c.	Poor	Not Eligible	Testing
38BR1399	TC 39	Full Coverage	20th c.	Poor	Not Eligible	Testing
38BR1400	TC 39	Full Coverage	Unk. Preh.	Poor	Not Eligible	Testing
38BR1401	TC 39	Full Coverage	20th c.	Poor	Not Eligible	Testing
38BR1402	TC 42	Full Coverage	18th c., 19th c.	Poor	Not Eligible	Testing
38BR1404	TC 35	Purposive	20th c.	Poor	Not Eligible	Testing

EW – Early Woodland MW – Middle Woodland LW – Late Woodland
Miss. – Mississippian Unk. Preh. – Unknown Prehistoric Unk. Hist. – Unknown Historic

Table I–4. Isolated Artifact Occurrences, FY17.

ISOLATED FIND NO.	STPs	COMPONENT	SURVEY PROJECT
AK-OCC-164	9	Historic	TC 08
BR-OCC-325	9	Historic	TC 60
BR-OCC-337	12	Historic	TC 76
BR-OCC-338	9	Prehistoric	TC 38
BR-OCC-339	9	Prehistoric	TC 38
BR-OCC-340	9	Prehistoric	TC 38
BR-OCC-341	8	Historic	SU 3283
BR-OCC-342	8	Prehistoric	TC 38
BR-OCC-343	9	Historic	TC 38
BR-OCC-344	7	Historic/Prehistoric	TC 38
BR-OCC-346	9	Prehistoric	TC 39
BR-OCC-347	8	Historic	TC 39
BR-OCC-348	14	Prehistoric	TC 35

SR-88 Site Use Permit Application Survey

The SRARP received 80 Site Use Permit Applications from various contractors on the SRS during FY17. Each permit application underwent review by SRARP management for proposed land modification. Of these, 11 Site Use projects required field reconnaissance or archaeological survey (Table I–5). These Site Use projects comprised 14.85 acres (8.0%) of the total survey coverage in FY17. The following summaries describe Site Use projects and survey results during FY17.

Table I–5. SR-88 Site Use Application Projects, FY17.

PROJECT	PROJECT AREA SURVEYED (ac)	TOTAL PROJECT STPs	NEW SITES	SITE REVISITS
SU 3258	0	0 (0 positive)		
SU 3263	0	0 (0 positive)		

SU 3264	2.125	17 (0 positive)		
SU 3268	2.875	23 (0 positive)		
SU 3271	1.125	10 (0 positive)		
SU 3272	0.5	4 (0 positive)		
SU 3273	0.0	0 (0 positive)		
SU 3280	1.0	9 (0 positive)		
SU 3283	1.625	19 (0 positive)		
SU 3286	0.0	0 (0 positive)		
SU 3304	5.6	0 (0 positive)		38AK590
Totals 11	14.85	82 (0 positive)	0	1

n/a – not applicable

Certain aspects of archaeological work are standard for all projects on the SRS (SRARP 1989). Prior to fieldwork, a review of 1951 aerial photography is conducted to identify standing historic structures at the time of federal acquisition. The SRARP site files are consulted to identify previously recorded cultural resources. All STPs measure 35 x 35 cm and are excavated to a depth of at least 80 cmbs, unless a gravel or clay substratum is encountered. Upon completion of each survey project, point data for all STPs, as well as all new and previously recorded sites and isolated artifact occurrences, are collected using GPS equipment. Exceptions to this fieldwork procedure include historic site locations identified from 1951 aerial photographs that are situated in low-probability areas for prehistoric sites (see discussion of Archaeological Sensitivity Zones in SRARP 1989). At these locations, STPs are excavated to just below the plowzone (usually between 20 - 40 cmbs). The reduced depth of STPs on historic sites is justified because late-period historic sites generally lack thick, stratified deposits (Cabak and Inkrot 1997:29-31). The soil from the STPs is sifted through 0.25-in. wire mesh, and artifacts are collected and bagged by provenience.

SU Log No. 3258 – Proposed G-Area Oil Seepage Basin Area Characterization

This Site Use Permit, issued on August 31, 2016, proposed characterization of the 761-13N seepage basin. Review of the SRARP database showed no previously recorded sites located in the project area. On October 7, 2016, a pedestrian survey indicated that high-probability areas for archaeological sites occur within the footprint of a heavily engineered ditch with stagnant water. As the area has been disturbed from previous SRS construction activities (i.e., prior to the 1989 PMOA), no further archaeological survey is warranted. Thus, no historic properties will be affected as a result of the proposed project.

SU Log No. 3263 – Proposed Caster Creek Area Characterization

This Site Use Permit, issued September 28, 2016, requested characterization of the Castor Creek Area. Review of the SRARP database showed no previously recorded sites in the project area. Soil contamination of the area is indicated by signs along Road 73-31. For this reason, no survey was conducted for the proposed characterization because of the proximity to known contaminated areas.

SU Log No. 3264 – Proposed Installation of 13 Monitoring Wells, 1 Soil Boring, and 2 Access Roads

This Site Use Permit, issued on October 10, 2016, proposed the installation of 13 new monitoring wells, 1 soil boring, 6 buffers, and 2 new gravel covered roadways with 100-ft. diameter turnarounds located east and northeast of Road C and Road 2. Review of the SRARP database showed no previously recorded sites located in the project areas. Fieldwork consisted of 7 transects and a total of 17 STPs (0 positive). As these survey efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

SU Log No. 3268 – Proposed Installation of 6 Monitoring Wells, 4 Soil Borings, and 4 Access Roads

This Site Use Permit, issued on December 21, 2016, proposed the installation of 6 monitoring wells, 4 graveled access roads, 7 buffers, and 4 soil borings. Two of the access roads will require 100-ft. diameter turnarounds. Proposed ground-disturbing activities will involve removal of existing trees and vegetation at five of the buffers. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of 6 transects and a total of 23 STPs (0 positive). As these survey efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

SU Log No. 3271 – Proposed Additional Land for the Construction of Two Access Roads for the Lower Three Runs Project Plan

This Site Use Permit, issued on November 21, 2016, by the United States Forest Service-Savannah River (USFS-SR), proposed an amendment to SU-12-07-F to include additional land for the construction of two roads for access to Timber Compartment 77 Stand 11 and Timber Compartment 76 Stand 23. Proposed Access Road 77-20.4 will be 845 ft. in length and 14 ft. wide, while proposed Road 76-30.1 will be 1,003 ft. in length and 14 ft. wide. Each road will have 10-ft. wide turnout areas every 300 ft. Review of the SRARP database showed no previously recorded sites located in the project area. Fieldwork consisted of 3 transects with a total of 10 STPs (0 positive). As these survey efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

SU Log No. 3272 – Proposed Additional Land for the Construction of One Access Road for the ADM Project Plan and Road Construction

This Site Use Permit, issued on November 22, 2016, by the USFS-SR, proposed an amendment to SU-13-05-F to include additional land for the construction of one access road for access to Timber Compartment 8 Stand 67. Review of the SRARP database showed no previously recorded sites located in the project areas. Fieldwork consisted of a single transect with a total of 4 STPs (0 positive). As these survey efforts

resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

SU Log No. 3273 – Proposed Installation of Groundwater Remediation Well

This Site Use Permit, issued on November 30, 2016, proposed the installation of one groundwater remediation well. Ground-disturbing activities will involve removal of existing trees and vegetation to facilitate installation of underground piping and electrical wiring. Review of the SRARP database showed no previously recorded sites in the project area. The area has been previously disturbed by power lines, buried cables, waste areas, and radiological contamination. As the area has been disturbed by these previous SRS construction activities (i.e., prior to the 1989 PMOA), no further archaeological survey is warranted.

SU Log No. 3280 – Proposed Z-Area Saltstone Facility

This Site Use Permit, issued on December 29, 2016, proposed an amendment to SU-85-15-C to include additional land for construction of Saltstone Disposal Unit 7 (SDU7) and other SDUs. Proposed ground-disturbing activities will involve removal of existing trees, sediment controls, and the creation of a storm-water detention basin. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of a single transect with a total of 9 STPs (0 positive). As these survey efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

SU Log No. 3283 – Proposed Understory Species Responses to Hardwood Control Treatments during Restoration of Longleaf Pine Savannah Study

This Site Use Permit, issued on January 24, 2016, proposed an amendment to SU-15-45-F to allow for boundaries of three stands to be expanded and facilitate alignment of logging decks. Ground-disturbing activities will involve removal of existing trees, sediment controls, and the creation of a storm-water detention basin. Review of the SRARP database showed one recorded site (38BR1379) within the project area. Site 38BR1379 has been previously evaluated as not eligible for nomination to the NRHP (SRARP 2016:4, Table 1-3). Fieldwork consisted of 7 transects with a total of 13 STPs (0 positive). Survey efforts within the project area also resulted in the recovery of an isolated occurrence (metal can) on the surface (BR-OCC-341). Six additional STPs were placed around the isolated occurrence (0 positive). This artifact occurrence has no research potential to advance our understanding of the history of the region. As these survey efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

SU Log No. 3286 – Proposed EC/ACP Boundary in and around C-Area CERCLA Defined Land Use Controls and Discharge Canal Waste Unit

This Site Use Permit, issued on March 23, 2017, proposed an EC/ACP boundary in and around the C-Area CERCLA defined land use controls and discharge canal waste unit. Vegetation removal could result in land disturbance. Review of the SRARP database showed no previously recorded sites in the project area. GIS database layers showed this area was previously disturbed and contaminated as a result of early SRS land-use activities. Thus, no archaeological survey was done for this site use.

SU Log No. 3304 – Establish Wildlife Food Plots on SCE&G Right-of-Ways

This Site Use Permit, issued by personnel of the Savannah River Nuclear Solutions, Inc. (SRNS) on May 17, 2017, proposed establishing seven wildlife food plots in SCE&G power line right-of-ways. The size of each proposed plat was 100 x 30 m in extent. Review of the SRARP database showed a previously recorded site (38AK590) in one of the project areas. Before archaeological survey could be conducted, the SRNS plowed the plots for planting. SRARP personnel contacted the Site Use Coordinator for the project, who explained that as the right-of-way areas had been previously disturbed they did not need to issue a Site Use and could proceed with plowing and planting. Subsequently, SRNS was instructed by DOE that all activities on the SRS involving land disturbance must issue a formal request. In an attempt to comply with SRS land use regulations, the SRNS filed a Site Use request, resulting in SU Log No. 3304, even after their work was completed. Staff of the SRARP further explained that we must conduct a subsurface survey prior to any land-disturbing activities, and the SRNS assured us that they are now aware of this regulation.

Given this situation, fieldwork consisted of a pedestrian walkover of each food plot. No artifacts were found on any of the plots. Additionally, the condition of historic site 38AK590 was assessed. As a result, a food plot was placed on the southeast perimeter of the site in an area with mostly negative shovel tests; this area covers less than 6% of the entire site. Thus, only minimal damage was done to any buried deposits. Previous shovel-test survey at 38AK590 was conducted during FY15 to delineate the extent of deposits. As stated in the FY15 Annual Report (SRARP 2015:22-23), this site is considered eligible for nomination to the NRHP given the components present, which include Early Archaic, Late Archaic, and 18th to 20th century. In actuality, plowing the food plot resulted in much less subsurface disturbance to any buried deposits at 38AK590 than the original development of the power line corridor.

Timber Compartment Survey

The United States Forest Service-Savannah River (USFS-SR) is the most extensive land user on the SRS, as this agency's primary function is one of research and forest management in support of silvicultural practices. Each year, the USFS-SR issues a list of Timber Compartment Prescriptions indicating those areas on the SRS where timber management activities are scheduled to occur. As a policy, the USFS-SR issues this list

two to three years before the planned thinning or harvesting is scheduled. Employing these Prescriptions, the SRARP identifies areas that must be surveyed prior to forest management activities. Because of the lead-time provided by way of this process, the SRARP has the opportunity to locate and evaluate all resources within the area of proposed land use at least one year in advance of the Site Use Application request detailing all proposed timber management actions. Finally, all historic and prehistoric sites with potential research significance are avoided completely during harvesting activities.

The SRARP management reviews each Timber Compartment Prescription to determine the level of survey required for each Timber Stand slated for timbering. The review process involves determining the potential for archaeological resources in each Timber Stand. This is accomplished by applying the predictive locational model of site discovery developed by the SRARP for management of cultural resources on the SRS (SRARP 1989). Information from the SRS site files, previous survey records, and historic documentation is also incorporated into the review process to insure all resources are located and previous survey efforts are not duplicated.

This process does not apply to log decks, which are only planned days to weeks before timbering activities begin. SRARP staff review proposed log deck locations and conduct surveys as they are notified of their locations. Log deck locations are surveyed with a 30-m interval grid of shovel tests. The USFS-SR, in consultation with the SRARP, ensures that all archaeological sites deemed significant for research potential are avoided in log deck placement. If avoidance is not possible, the SRARP consults with SCSHPO to formulate a mitigation plan for proposed impacts.

Surveys of Log Decks and Timber Stands were conducted in 19 separate Timber Compartments. These surveys involved 176.54 acres (92%) of the total survey area coverage in FY17. Table I–6 provides a listing by Timber Compartment of all sites investigated. The following summaries describe Timber Compartment projects and survey results during FY17.

Certain aspects of archaeological work are standard for all projects (SRARP 1989). Prior to fieldwork, a review of 1951 aerial photography is conducted to identify standing historic structures at the time of federal acquisition. The SRARP site files are consulted to identify previously recorded cultural resources. All STPs measure 35 x 35 cm and are excavated to a depth of at least 80 cmbs, unless a gravel or clay substratum is encountered. Upon completion of each survey project, point data for all STPs, all new and previously recorded sites, and isolated artifact occurrences are recorded using GPS equipment. Exceptions to this fieldwork procedure include historic site locations identified from 1951 aerial photographs that are situated in low-probability areas for prehistoric sites (see discussion of Archaeological Sensitivity Zones in SRARP 1989). At these locations, STPs are excavated to just below the plowzone (usually between 20 - 40 cmbs). The reduced depth of STPs on historic sites is justified because late-period historic sites generally lack thick, stratified deposits (Cabak and Inkrot 1997:29-31). The

soil from the STPs is sifted through 0.25-in. wire mesh, and artifacts are collected and bagged by provenience.

Table I–6. Timber Compartment Prescription and Log Deck Surveys, FY17.

PROJECT	PROJECT AREA SURVEY (acres)	TOTAL PROJECT STPs	NEW SITES	SITE REVISITS
Timber Comp. 08	11.75	103 (0 positive)		38AK109 (unsuccessful)
Timber Comp. 35	7.0	101 (6 positive)	38BR1404	
Timber Comp. 38	29.5	469 (34 positive)	38BR1390	38BR313
			38BR1394	38BR558
			38BR1395	38BR771
			38BR1396	
Timber Comp. 39	50	551 (31 positive)	38BR1397	
			38BR1399	
			38BR1400	
			38BR1401	
Timber Comp. 42	15.625	149 (6 positive)	38BR1402	
Timber Comp. 43	2.0	16 (0 positive)		
Timber Comp. 51	12.875	228 (30 positive)	38BR1389	
			38BR1398	
Timber Comp. 52	12.0	357 (53 positive)	38BR1388	
			38BR1391	38BR231
				38BR845
Timber Comp. 58	2.0	16 (0 positive)		
Timber Comp. 60	3.25	30 (1 positive)		
Timber Comp. 62	7.75	107 (13 positive)	38BR1393	
Timber Comp. 64	0.5	4 (0 positive)		
Timber Comp. 69	1.0	8 (0 positive)		
Timber Comp. 70	1.5	12 (0 positive)		
Timber Comp. 71	2.0	16 (0 positive)		
Timber Comp. 72	1.0	8 (0 positive)		
Timber Comp. 76	5.5	332 (92 positive)	38BR1386	38BR236
			38BR1392	
Timber Comp. 77	10.25	150 (16 positive)		38BR647
Timber Comp. 78	1.0	8 (0 positive)	38BR1387	
Total 19	176.5	2,665 (282 positive)	18	8

Timber Compartment 8

Archaeological survey in this Timber Compartment involved the subsurface inspection of 24 proposed log decks totaling 11.75 acres in Stands 16, 22, 24, 29, 31, 32, 39, 51, 53, and 85 slated for clearcutting. Review of the SRARP database indicated a previously recorded site (38AK109) in the project area. Fieldwork consisted of 48 transects with a total of 94 STPs (0 positive). Site 38AK109, a sparse scatter of historic

and prehistoric materials, could not be located during the survey. These efforts within the project area also resulted in the discovery of an isolated occurrence (partially buried ferrous metal, not collected). This isolated find (AK-OCC-164) was surveyed with a cruciform pattern of nine shovel tests (0 positive). As these efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 35

Archaeological survey in this Timber Compartment involved the subsurface inspection of 7 acres in Stands 17, 40, 72, and 112 slated for clearcutting. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of 56 STPs (1 positive) excavated along 6 transects. These efforts resulted in the discovery and delineation of one new site (38BR1404). Due to the sparse nature of cultural material and poor contextual integrity, this site is considered not eligible for nomination to the NRHP. Survey also resulted in the recovery of one isolated find (BR-OCC-348). This artifact occurrence has no research potential to advance our understanding of the history of the region. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 38

Archaeological survey in this Timber Compartment involved the subsurface inspection of 29.5 acres in Stands 6, 11, 21, 28, 29, 49, 51, 53, 77, 90, 93, and 123 for thinning and clearcutting. Review of the SRARP database showed three previously recorded sites (38BR313, 38BR558, and 38BR771) in the project area. Fieldwork consisted of 236 STPs (14 positive) excavated along 70 transects. These efforts resulted in the discovery and delineation of four new sites (38BR1390, 38BR1394, 38BR1395, and 38BR1396). Survey also resulted in the recovery of six isolated finds (BR-OCC-338, BR-OCC-339, BR-OCC-340, BR-OCC-342, BR-OCC-343, and BR-OCC-344). These artifact occurrences have no research potential to advance our understanding of the history of the region. Site 38BR558 is unevaluated for nomination to the NRHP and will be avoided completely by any USFS-SR management activities. Due to the sparse nature of cultural material and poor contextual integrity, previously recorded sites 38BR313 and 38BR771, as well as newly discovered sites 38BR1390, 38BR1394, 38BR1395, and 38BR1396, are not considered eligible for nomination to the NRHP. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 39

Archaeological survey in this Timber Compartment involved the subsurface inspection of 50 acres in Stands 3, 5, 14, 61 and 64 slated for clearcutting. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of 400 STPs (8 positive) excavated along 58 transects. These efforts resulted in the discovery and delineation of four new sites (38BR1397, 38BR1399, 38BR1400, and 38BR1401). Survey also resulted in the recovery of two isolated finds (BR-OCC-346 and

BR-OCC-347). These artifact occurrences have no research potential to advance our understanding of the history of the region. Site 38BR1397 is considered eligible for nomination to the NRHP and will be avoided completely by any USFS-SR management activities. Due to the sparse nature of cultural material and poor contextual integrity, sites 38BR1399, 38BR1400, and 38BR1401 are not eligible for nomination to the NRHP. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 42

Archaeological survey in this Timber Compartment involved the subsurface inspection of 15.625 acres in Stands 5, 14, 33, 40, 66, and 92 slated for clearcutting. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of 125 STPs (2 positive) excavated along 27 transects. These efforts resulted in the discovery and delineation of one new site (38BR1402). Due to the sparse nature of cultural material and poor contextual integrity, this site is considered not eligible for nomination to the NRHP. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 43

Archaeological survey in this Timber Compartment involved the subsurface inspection of 2 acres in Stands 4, 6, and 18 slated for clearcutting. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of 16 STPs (0 positive) excavated along 8 transects. As these efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 51

Archaeological survey in this Timber Compartment involved the subsurface testing of 26 proposed Log Decks totaling 12.875 acres in Stands 50, 51, 52, 63, 65, 68, 69, 73, 112, 116, 118, 120, 124, 127, 132, 145, and 163. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of STP survey on a 30-m grid at each log deck location. Altogether, 103 STPs (1 positive) were excavated during this project. These efforts resulted in the location of two new sites (38BR1389 and 38BR1398). Site 38BR1389 was discovered as a result of architectural and artifactual material visible on the ground surface. Due to the sparse nature of cultural material and poor contextual integrity, both sites are considered not eligible for nomination to the NRHP. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 52

Archaeological survey in this Timber Compartment continued from FY16 (SRARP 2016:59). This fiscal year, a new Timber Compartment prescription was issued by the USFS-SR that involved the subsurface testing of 24 proposed Log Decks totaling

12 acres in Stands 1, 6, 8, 15, 17, 19, 25, 28, 30, 33, 41, 47, 54, 56, and 76. Review of the SRARP database showed two previously recorded sites (38BR231 and 38BR845) in the project area. Fieldwork consisted of STP survey on a 30-m grid at each log deck location. Altogether, 96 STPs (0 positive) were excavated during this project. Although these efforts resulted in only negative STPs, two new sites (38BR1388 and 38BR1391) were discovered as a result of architectural and artifactual material visible on the ground surface. Prior to the delineation of 38BR231, the USFS-SR began work at the proposed log deck location. The SRARP informed the USFS-SR that their management activities must not proceed without final notification from the SRARP. The USFS-SR immediately ceased all operations at the log deck location. Site 38BR231 is considered eligible for nomination to the NRHP. The proposed log deck was relocated so that 38BR231 will be avoided completely by the USFS-SR. Site 38BR845 is unevaluated at this time and will be avoided completely by the USFS-SR. The eligibility status of newly discovered sites 38BR1388 and 38BR1391 is unevaluated until further survey is conducted; however, both sites will be avoided completely by any USFR-SR management activities. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 58

Archaeological survey in this Timber Compartment involved the subsurface testing of 4 proposed Log Decks totaling 2 acres in Stands 4, 5, and 6. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of STP survey on a 30-m grid at each log deck location. Altogether, 16 STPs (0 positive) were excavated during this project. As these efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 60

Archaeological survey in this Timber Compartment involved the subsurface inspection of 6 proposed Log Decks totaling 3.25 acres in Stands 8, 10, 13, 20, and 21. Review of the SRARP database showed no previously recorded sites in the project areas. Fieldwork consisted of STP survey on a 30-m grid at each log deck location. Altogether, 26 STPs (1 positive) were excavated during this project. Delineation of this positive STP resulted in an isolated artifact occurrence (BR-OCC-325). This isolated find has no research potential to advance our understanding of the history of the region. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 62

Archaeological survey in this Timber Compartment involved the subsurface inspection of 7.75 acres in Stands 22, 24, 26, 30, 31, 33, 72, 74, and 77 slated for thinning. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of 62 STPs (1 positive) excavated along 32 transects. These efforts resulted in the discovery and delineation of one new site (38BR1393). This

site is unevaluated and will be avoided completely by any USFS-SR management activities. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 64

Archaeological survey in this Timber Compartment involved the subsurface testing of 1 proposed Log Deck totaling 0.5 acre in Stand 50. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of STP survey on a 30-m grid at the log deck location. Altogether, 4 STPs (0 positive) were excavated during this project. As these survey efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 69

Archaeological survey in this Timber Compartment involved the subsurface testing of 2 proposed Log Decks totaling 1 acre in Stand 15. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of STP survey on a 30-m grid at each log deck location. Altogether, 8 STPs (0 positive) were excavated during this project. As these survey efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 70

Archaeological survey in this Timber Compartment involved the subsurface inspection of 1.5 acres in Stand 38 slated for thinning. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of 12 STPs (0 positive) excavated along 6 transects. As these survey efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 71

Archaeological survey in this Timber Compartment involved the subsurface inspection of 2 acres in Stands 13 and 53 slated for thinning. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of 16 STPs (0 positive) excavated along 8 transects. As these survey efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 72

Archaeological survey in this Timber Compartment involved the subsurface testing of 2 proposed Log Decks totaling 1 acre in Stand 20. Review of the SRARP database showed no previously recorded sites in the project area. Fieldwork consisted of

STP survey on a 30-m grid at each log deck location. Altogether, 8 STPs (0 positive) were excavated during this project. As these survey efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 76

Archaeological survey in this Timber Compartment involved the subsurface testing of 11 proposed Log Decks totaling 5.5 acres in Stands 3, 4, 10, 11, 14, 16, 19, 25, and 27. Review of the SRARP database showed one previously recorded site (38BR236) in the project area. Fieldwork consisted of STP survey on a 30-m grid at each log deck location. Altogether, 44 STPs (4 positive) were excavated during this project. These efforts resulted in the location of two new sites (38BR1386 and 38BR1392) and one isolated artifact occurrence (BR-OCC-337). This isolated find has no research potential to advance our understanding of the history of the region. Due to the sparse nature of cultural material and poor site integrity, sites 38BR1386 and 38BR1392 are not eligible for nomination to the NRHP. Site 38BR236 is unevaluated and will be avoided completely by any USFS-SR management activities. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 77

Archaeological survey in this Timber Compartment involved the subsurface inspection of 10.25 acres in Stands 1, 3, 4, 5, 6, 8, 9, 10, 12, 14, 24, 28, 31, 35, 36, and 40 slated for thinning. Review of the SRARP database showed one previously recorded site (38BR647) in the project area. Site 38BR647 is unevaluated, but will be avoided completely by any USFS-SR management activities. Fieldwork consisted of 82 STPs (0 positive) excavated along 39 transects. As these survey efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

Timber Compartment 78

Archaeological survey in this Timber Compartment involved the subsurface testing of 2 proposed Log Decks totaling 1 acre in Stands 2 and 11. Review of the SRARP database showed no previously recorded sites in the project area. During a pedestrian survey of the project area, one new site (38BR1387) was discovered. This site consists of an artesian well in a wetland area with some evidence of a historic still. Site 38BR1387 is unevaluated and will be avoided completely by any USFS-SR management activities. Fieldwork consisted of STP survey on a 30-m grid at each log deck location. Altogether, 8 STPs (0 positive) were excavated during this project. As these survey efforts resulted in only negative STPs, no further archaeological work was required. Thus, no historic properties will be affected as a result of the proposed project.

Survey Results

To summarize, Table I–7 lists the results of FY17 compliance survey. Altogether, 18 new sites were recorded and delineated, and 8 previously recorded sites were revisited. Of the total sites investigated during FY17, 2 are considered eligible and 15 are considered not eligible for inclusion in the NRHP. The remaining 9 sites have been assigned an unevaluated status (requires testing for eligibility determination), and each will be avoided by DOE contractors. In the event any of these sites are threatened, further testing will be conducted to allow a determination of eligibility. Thirteen isolated artifact occurrences were also recorded during FY17. Isolated finds are considered to hold low research potential. As such, there will be no adverse effects to these ephemeral resources through DOE-related activities. Summary data for new and existing sites are provided in Table I–1 and Table I–2. Evaluations of these sites are provided in Table I–7. One previously recorded site, 38AK109, could not be located during survey, which is attributable to the inaccuracy of the original UTM coordinates and low artifact density as initially reported.

The SRARP surveyed 191.5 acres in FY17 for 11 Site Use Permits and 18 Timber Compartment Prescriptions. Of the total area surveyed, 14.85 acres (8%) involved Site Use Permit projects, and 176.5 acres (92%) involved Timber Compartment Stands slated for harvesting or Log Deck use. Altogether, 2,747 STPs were excavated during FY17 archaeological surveys, with a total of 282 STPs producing artifacts.

In conclusion, Section 110 of the Regulatory process requires an inventory of all cultural resources on public lands. As of this report, the SRARP has surveyed approximately 70,458 acres (36.4%) out of a total of 193,276 (97.4%) of SRS acreage suitable for survey (i.e., excluding SRS wetlands and developed areas). In total, the SRS comprises 198,344 acres or 310 sq. mi. CRM efforts have resulted in the inventory of 2,043 sites (956 prehistoric, 568 historic, and 519 with both prehistoric/historic components) recorded to date.

Table I–7. Summary of FY17 Survey Results.

Site Use Permit Surveys	11
Timber Compartment Prescription Surveys	18
Total STPs Excavated	2,747
Total Positive STPs Excavated	282
Total Area Surveyed (acres)	191.5
New Sites	18
Site Revisits	8
Isolated Artifact Occurrences	13

CURATION COMPLIANCE ACTIVITIES

Tammy F. Herron

As a result of the primary analysis of artifacts recovered through daily compliance activities, 1,308 artifacts were entered into curation over the course of the past fiscal year. Volunteers with the Carolina Bay Volunteer Research Program (CBVRP) also processed artifacts and geological samples recovered during excavations to further advance ongoing

Carolina bay research. Tasks included magnetic grain extraction and sorting of soil samples, sieving sediments for grain size analysis, and splitting samples for geochemistry analysis. For more information regarding volunteer efforts, see the section titled "SRARP Volunteer Program."

In another study, USC graduate student Jessica Cooper completed her analysis of a sample of the triangular points from the collection housed by the SRARP to determine if morphological differences in basal width are temporally significant. As demonstrated in her 2017 thesis titled, A Functional Analysis of Yadkin Bifaces in the Middle Savannah River Valley, basal width is a temporally significant variable.

A number of artifacts from the collection are on loan to Stewart Younger-Mertz, who is applying a fluorine dating technique to a series of temporally-diagnostic Coastal Plain Chert projectile hafted bifaces from the Savannah River Valley of South Carolina. This analysis method is non-destructive and has tremendous potential in archaeology and beyond. These are just a few ways that the collections housed at the SRARP are being utilized to learn more about the history of the region.

Also, as a precautionary measure, duplicate copies of the Site Files generated as a result of archaeological excavations conducted on the SRS are housed at SCIAA in Columbia. This fiscal year, graduate student Joe Wilkinson continued scanning the duplicate copies of the SRARP Site Files so that these documents can be integrated into ArchSite, a Geographic Information System (GIS) used to manage archaeological resources in South Carolina. These files encompass parts of Aiken, Allendale, and Barnwell counties.

For four decades, archaeological compliance, research, and public outreach have formed the basis for daily and long-term operation of the SRARP. The nearly two million artifacts curated by SRARP staff hold a wealth of knowledge that continues to be tapped for compliance-related research projects. For instance, 12 sediment samples collected from White Pond were shipped to Actlabs for platinum (Pt) analysis. Additionally, 1 carbon sample and 15 geological samples from White Pond were submitted to Beta Analytic for Accelerator Mass Spectrometry (AMS) dating. Ten vibracore samples from White Pond were submitted for Aciniform carbon testing. Lastly, immunological analysis (blood residue) of temporally diagnostic hafted bifaces to evaluate diachronic trends in animal prey species selection and availability continued with the submission of 1 Dalton point from White Pond and 30 Paleoindian Clovis hafted bifaces from the Oshnock collection in North Carolina. Previously, results of this immunological study verified bovid (bison) residue on several hafted bifaces from the Paleoindian through early Middle Archaic periods, and may lend evidence as to whether bison in the South Atlantic Slope were eradicated by the early Middle Holocene.

ARCHAEOLOGICAL CURATION FACILITY

Tammy F. Herron and J. Haley Grant

In FY17, Haley Grant, SRARP Assistant Curator for the Archaeological Curation Facility (ACF), has continued to re-inventory boxes of artifacts, placed inventory sheets inside each box, and sealed the boxes with strapping tape as a further security precaution.

To date, all boxes containing DOE artifacts, unless on hold for re-analyzation, have been securely strapped. Ms. Grant continues to update the ACF's miscounted, added, reclassified, and missing artifact list.

Though the SRARP maintains that the ACF's purpose is not that of a museum, a limited number of behind-the-scenes tours are performed as interest in the 315-M Curation Facility continues to grow. With this in mind, the ACF and SRARP staff, in conjunction with Cold War Curation also housed with the 315-M Curation Facility, participated in over 30 tours of the facility during FY17. Groups touring the ACF included the Veterans Curation Project, Citizens' Advisory Board, Savannah River Nuclear Laboratory (SRNL) employees, and participants in the Engineering Leadership Development Program, as well as Farms to Fission bus tours. Additionally, a large mobile display board was erected in the main hall showcasing information about the SRARP.

The 315-M Curation Facility, on behalf of SRNS, was the site of the 2017 SRS United Way kick-off in August. SRARP Public Outreach Coordinator Jessica Phillips, Program Coordinator George Wingard, and Assistant Curator Haley Grant participated in the kick-off. The ACF was closed to non-SRARP personnel during the event.

Issues with leaks along the main hall, Cold War rooms, and the ACF area of the Curation Facility were reported to building maintenance, and plans to reseal the roof are underway. Additionally, building maintenance responded quickly when the Curation Facility's Air Conditioning Units 4 and 5 malfunctioned in July, impacting the main hall and Cold War artifact storage. Repairs were performed quickly. There was no impact to the ACF. The ACF at the SRS Curation Facility continues to operate efficiently and within the guidelines set forth by the Secretary of Interior.

ARCHAEOLOGICAL GEOGRAPHIC INFORMATION SYSTEM

Brian Milner

Archaeological Site Polygons and Centroids Project

As the process of moving our GIS data into a geodatabase continues, staff members have begun a process of Quality Assurance and Control (QA/QC) verifying the accuracy of our data. One area of focus is on the location of archaeological sites on the SRS. Sites discovered today are recorded using GPS'd locational data and are accurate to within a meter. Earlier sites were recorded by noting them on a site topographic map in their relative location. We are currently comparing the GIS data of older sites to information provided in the site files to make sure the GIS representation is as accurate as possible. This work will continue into FY18.

Archaeological Geospatial Database Project

Work on the SRARP geodatabase progressed in 2017. After our consultation with the University of South Carolina College of Arts and Sciences Computing Center, we have acquired the recommended hardware for an office server to house the database software. Currently, we are in the process of acquiring a license for ESRI ArcServer from the University of South Carolina Geography Department, which will enable multiple users the ability to access and edit data simultaneously. In the interim, we have begun the process of moving our GIS data onto the server. This allows access to SRARP-GIS data collectively rather than separately on each individual computer. During the transfer process, we are also preforming a quality assurance and quality control check of the data to ensure that the legacy data is correct. This process will continue into FY18.

SAFETY COMPLIANCE

George L. Wingard

During this fiscal year, the SRARP continued compliance regarding federal and state regulations governing human health and safety. As Director of Safety, George Wingard shared a variety of topics pertaining to their health and safety at meetings held throughout the year and during morning briefings with the staff.

PART II. RESEARCH

RESEARCH ABSTRACTS

Evaluating Diachronic and Geospatial Trends in South Carolina Prehistory from an Analysis of the Statewide Collector Survey

Christopher R. Moore and Tommy Charles

Poster presented at the 73rd Annual Southeastern Archaeological Conference, Athens, GA

Recently, a reanalysis of data from the South Carolina Collector Survey was initiated in an effort to produce a comprehensive GIS database of hafted biface and lithic raw material types across the entire state. Although earlier studies have utilized these data, this is the first time that hafted biface types (~90,000 artifacts) have been compiled and illustrated geospatially within GIS for Paleoindian through Mississippian time periods. Research applications for this database include evaluation of diachronic and geospatial changes in mobility patterns, macroband territories, settlement organization, and raw material use by hunter-gatherers in South Carolina.

Widespread Platinum Anomaly Documented at the Younger Dryas Onset in North American Sedimentary Sequences Consistent with Greenland Ice Core Data

Christopher R. Moore, Allen West, Malcolm A. LeCompte, Mark J. Brooks, I. Randolph Daniel, Jr., Albert C. Goodyear, Terry A. Ferguson, Andrew H. Ivester, James K. Feathers, James P. Kennett, Kenneth B. Tankersley, A. Victor Adedeji, and Ted E. Bunch

Poster presented at the 66th Annual Meeting of the Southeastern Geological Society, Richmond, VA

In 2013, Petaev et al. reported a large extraterrestrial platinum (Pt) anomaly in the Greenland ice sheet (GISP2) at the Younger Dryas onset (YD boundary layer, or YDB). In this study, fire-assay and inductively coupled plasma mass spectrometry (FA and ICP-MS) elemental analyses were performed on bulk sediments from stratified archaeological sites to evaluate evidence of a corresponding platinum (Pt) anomaly. Here, we document discovery of a distinct Pt anomaly horizon in 11 archaeological sedimentary sequences across North America that date to the YD onset. The widespread, apparent synchronicity of a Pt anomaly at the YDB is consistent with GISP2 data and suggests the atmospheric input of platinum-rich dust. Another anomaly involves the Pt/Pd ratios for the YDB layer, which are typically very different from the background Pt/Pd ratios above and below the YDB layer. Because there is no known geochemical reason that Pt/Pd ratios should differ locally only in the YDB, Pt/Pd anomalies suggest the influx of non-local Pt 12,800 years ago.

Petaev et al. (2013) suggested a likely extraterrestrial source of Pt from the impact of a sub-kilometer iron meteorite with an unusual fractionated core highly enriched in Pt. Although this study finds no evidence to contradict the conclusions of Petaev et al. that

the Greenland Pt enrichment most likely resulted from an extraterrestrial source, there is some question about the type of impactor and whether the Pt originated from the impactor and/or from target rocks. In addition, our findings show no contradiction with the Younger Dryas impact hypothesis (YDIH), although detailed evidence for such an impact or airburst is beyond the scope of this research. We expect the Pt anomaly to serve as a widely-distributed time marker horizon (datum) for identification and correlation of the onset of the YD climatic episode at 12,800 cal B.P. Furthermore, this Pt datum will likely prove valuable in dating and correlating archaeological, paleontological, and paleoenvironmental data between sequences, especially those with limited age control.

Aspects of Carved Paddle Stamped Designs from the Middle Mississippi Period

Keith Stephenson

Invited paper presented at the 82nd Annual Meeting of the Society for American Archaeology Conference, Vancouver, BC Canada

Complicated stamped pottery vessels, and the carved wooden paddles used to stamp them, were produced in Southeastern North America beginning early in the first millennium AD and continued in some quarters well into the nineteenth century. Much of the research on paddle designs has focused on the highly decorative and diverse Woodland Period expressions, with little attention given to later, more repetitive paddle stamps. In this paper, I bring the methods of analysis used to study Woodland paddle designs to bear on thirteenth-century paddle stamps from the Sandy Hammock site in southern central Georgia. By examining design variability at the scale of the individual paddle, inferences about household level production and, ultimately, social interaction can be made.

Swift Creek in Space and Time

Keith Stephenson and Karen Smith

Invited paper presented at the 73rd Annual Southeastern Archaeological Conference, Athens, GA

W. H. Holmes considered what we now call Swift Creek pottery to be part of the South Appalachian tradition. Subsequent decades of culture-historical research have reaffirmed the general spatial extent of the pottery to be across both the southern Piedmont and Coastal Plain regions. Equally broad is its timespan. Swift Creek pottery occurs over a 700-year-long phase from AD 100 - 800. In this study, we further refine the temporal and spatial resolution of Swift Creek through a critical assessment of the location of identified sites in conjunction with the numerous radiocarbon dates with professed Swift Creek contexts.

A Functional Analysis of Yadkin Bifaces in the Middle Savannah River Valley

Jessica Cooper

Paper presented at the 73rd Annual Southeastern Archaeological Conference, Athens, GA

Paper presented at the 43rd Annual Conference of the Archaeological Society of South Carolina, Columbia, SC

The Woodland period (3000-1000 B.P.) marks a time of vast change in settlement, foodways, and religion throughout the Southeast as pottery and the bow and arrow became widespread. One of the tool types that dominates the archaeological record from this time is the Yadkin biface. Yadkins are found almost exclusively in Middle Woodland contexts, suggesting that they had an important role in the cultural changes that accompanied the Middle Woodland. The primary goal of this research is to assess whether Yadkins functioned as arrow points using Michael Shott's one and two variable discriminant function analyses and macrofracture analysis.

RESEARCH NOTES

Geoarchaeological and Paleoenvironmental Research

Christopher R. Moore

Blood Residue Research

In January of FY17, an immunological (blood residue) analysis was performed on 30 Paleoindian Clovis hafted bifaces from the Oshnock collection in North Carolina. Several years ago, this collection was donated to the Office of State Archaeology (OSA) in Raleigh by Jim and Bob Oshnock who collected several large Paleoindian sites in Harnett County, North Carolina—amassing what amounts to the largest concentration of Clovis points ever found in North Carolina. The Oshnocks provided detailed provenience information, maps, drawings, and site location information for all artifacts. With funds provided by the Archaeological Research Trust (ART), blood residue analysis of these artifacts was conducted by Dr. Margaret Newman at the University of Calgary. Results are consistent with previous analyses of Paleoindian artifacts from Georgia and South Carolina (Moore et al. 2016) and indicate that the exploitation of bovid (most likely bison) was common during this time (Figure II-1). In addition, the analysis of the Oshnock collection continues the trend from previous studies with a glaring lack of evidence for the exploitation of extinct megafauna.

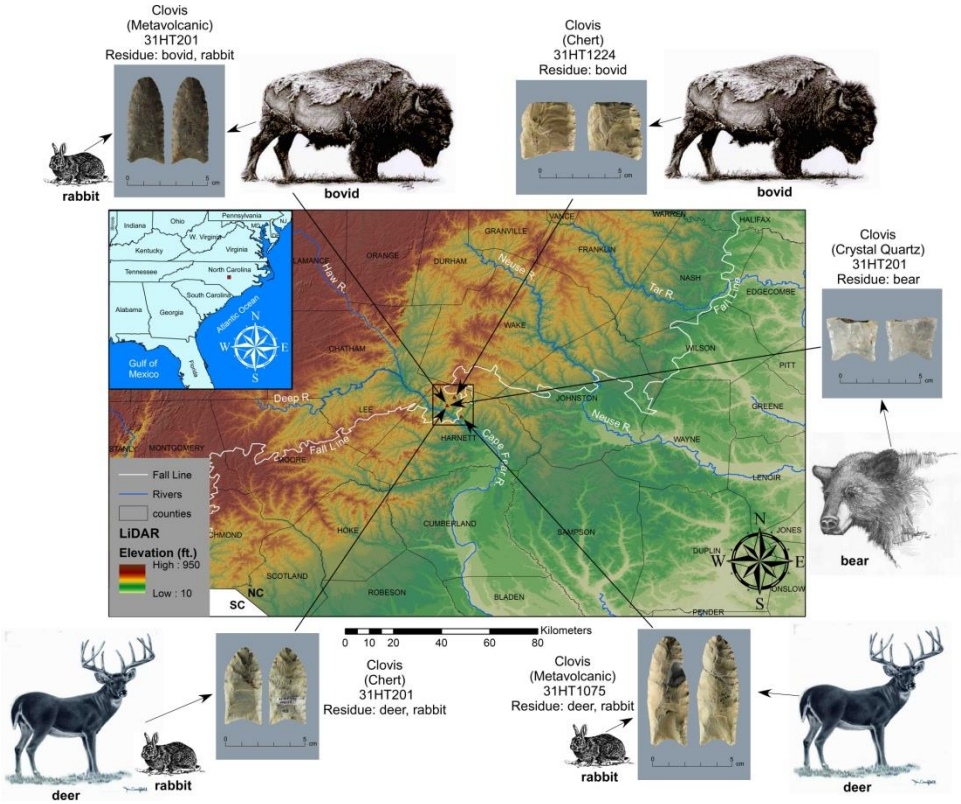

Figure II-1. Blood residue results for the Oshnock collection from North Carolina. White Pond Human Paleoecology Project.

In FY17, the SRARP initiated the White Pond Human Paleoecology Project (WPHPP). Building on the seminal work of Watts (1980), the goals of the WPHPP are multiple and include efforts to:

1) derive the broader geologic context of the age and origin of White Pond and its fringing sediments containing the archaeological record;

2) delineate and correlate the lacustrine paleoenvironmental and terrestrial archaeological records through integrated studies of litho- and biostratigraphy, geochronology (OSL and AMS radiocarbon dating), and archaeostratigraphy; and

3) conjoin the correlated paleoenvironmental and archaeological records in systemic, human behavioral terms (human paleoecology).

In May of FY17, the SRARP conducted volunteer excavations at White Pond near Elgin, South Carolina. This year, we utilized local volunteers and South Carolina Department of Natural Resources (SCDNR) employees to excavate an area along the south edge of the lake (Figure II-1 to Figure II-5). At this location, shovel testing had previously indicated the presence of deeply buried artifacts at the base of a sand slope near the lake shoreline and below large Pleistocene dune deposits. Three 2 x 2-meter excavation units were excavated to a depth of 120 centimeters below surface (cmbs). Concentrations of primarily quartz lithic debris were encountered between 80 and 120 cmbs and included a variety of prehistoric artifacts, as well as the *in-situ* discovery of a Late Paleoindian Dalton spear point (~12,000 years old) made of orthoquartzite (Figure II-6 and Figure II-7). The Dalton was collected without touching or washing and was examined by Dr. Robert Yohe at California State University for blood residue. The analysis produced positive results to human blood residue. This could be due to either inadvertent modern contamination or prehistoric use. If the blood residue is prehistoric, it may indicate use of the artifact as a weapon or simply handling of the tool by prehistoric inhabitants of White Pond.

In addition, a radiocarbon date on a charred wood fragment recovered from sediments ~10 to 20 cm below the Dalton point returned a date of 16,810 ± 60 (Beta# 466394) which calibrates to 20,485 to 20,065 cal BP. Samples of sediment were collected from a unit wall profile extending below the depth where the Dalton was recovered and will be tested to determine if the Younger Dryas Platinum (Pt) anomaly reported by Moore et al. (2017) is present in archaeological sediments at White Pond. If the Pt anomaly is present, it should provide a useful marker for the likely depth of any buried Early Paleoindian Clovis occupations which should occur chronostratigraphically just before the beginning of the Younger Dryas climate interval (ca. 12,800 cal BP). Finally, samples were collected for optically-stimulated luminescence (OSL) dating. OSL dating provides an age-estimate for the sand matrix that buried the artifacts (the last exposure of sand grains to sunlight) and will provide an indirect age for the buried artifacts, including the *in-situ* Dalton point.

In addition to the archaeological investigations, paleoenvironmental analysis of the vibracore collected from White Pond in FY16 continued in FY17. Work on this core includes an analysis of sediment geochemistry to determine if there is evidence of a widespread platinum (Pt) anomaly at the Younger Dryas onset (ca. 12,800 years ago) similar to those reported by Moore et al. (2017) for archaeological sites across North America. In addition, Angie Perrotti at Texas A&M University is analyzing core samples to look for dung spores (Figure II-8) associated with large megaherbivores, such as mammoth and mastodon that may have waded in the waters at White Pond during the last ice-age. Spore data revealed from this study may indicate the timing of the end-Pleistocene extinction event of more than 35 genera of animals. Complementing the spore analysis, Dr. Beth Shapiro and Josh Kapp at the Paleogenomics Laboratory at the University of California, Santa Cruz are attempting another groundbreaking study to extract animal DNA from core samples to determine if particular species can be identified from fragments of preserved DNA left in the mud. For this analysis, 25 core samples were extracted at USC Aiken using surgical gloves, facemasks, and sterile plastic syringes and vials (Figure II-9 and Figure II-10). This was done in order to prevent modern DNA contamination. Additional radiocarbon dating of the lake core is currently underway to more precisely define the Pleistocene-Holocene transition, to date the timing of the megafauna extinction as indicated by spore abundance, and to determine sediment deposition rates across this boundary.

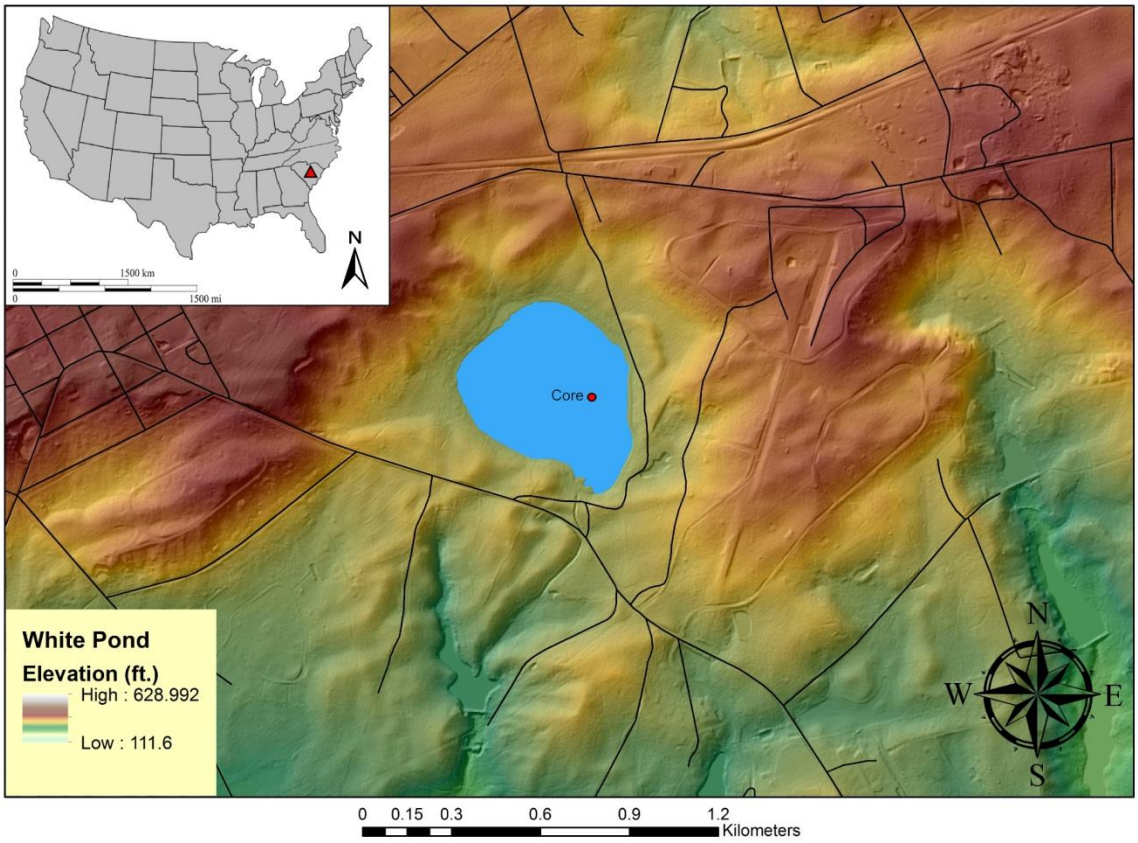

Figure II-2. LiDAR elevation map showing White Pond near Elgin, South Carolina, and the location of the 2015 and 2016 core samples. LiDAR image by Christopher Moore.

Figure II-3. Panoramic view of White Pond. Photo by Christopher Moore.

Figure II-4. Volunteer excavations at White Pond in May 2017. Photo by Christopher Moore.

Figure II-5. Working on stump removal in the middle 2x2-m test unit at White Pond.

Figure II-6. Carefully holding a Late Paleoindian Dalton point with a trowel soon after its discovery at White Pond. Photo by Tariq Ghafar.

Figure II-7. Dalton point found *in-situ* at White Pond in 2017 determined to have human blood residue. Photo by Christopher Moore.

Figure II-8. Photomicrograph of *Sporomiella* (indicated by black arrow) from White Pond core samples. Photo by Angie Perrotti.

Figure II-9. Collecting core samples for environmental (eDNA) analysis.

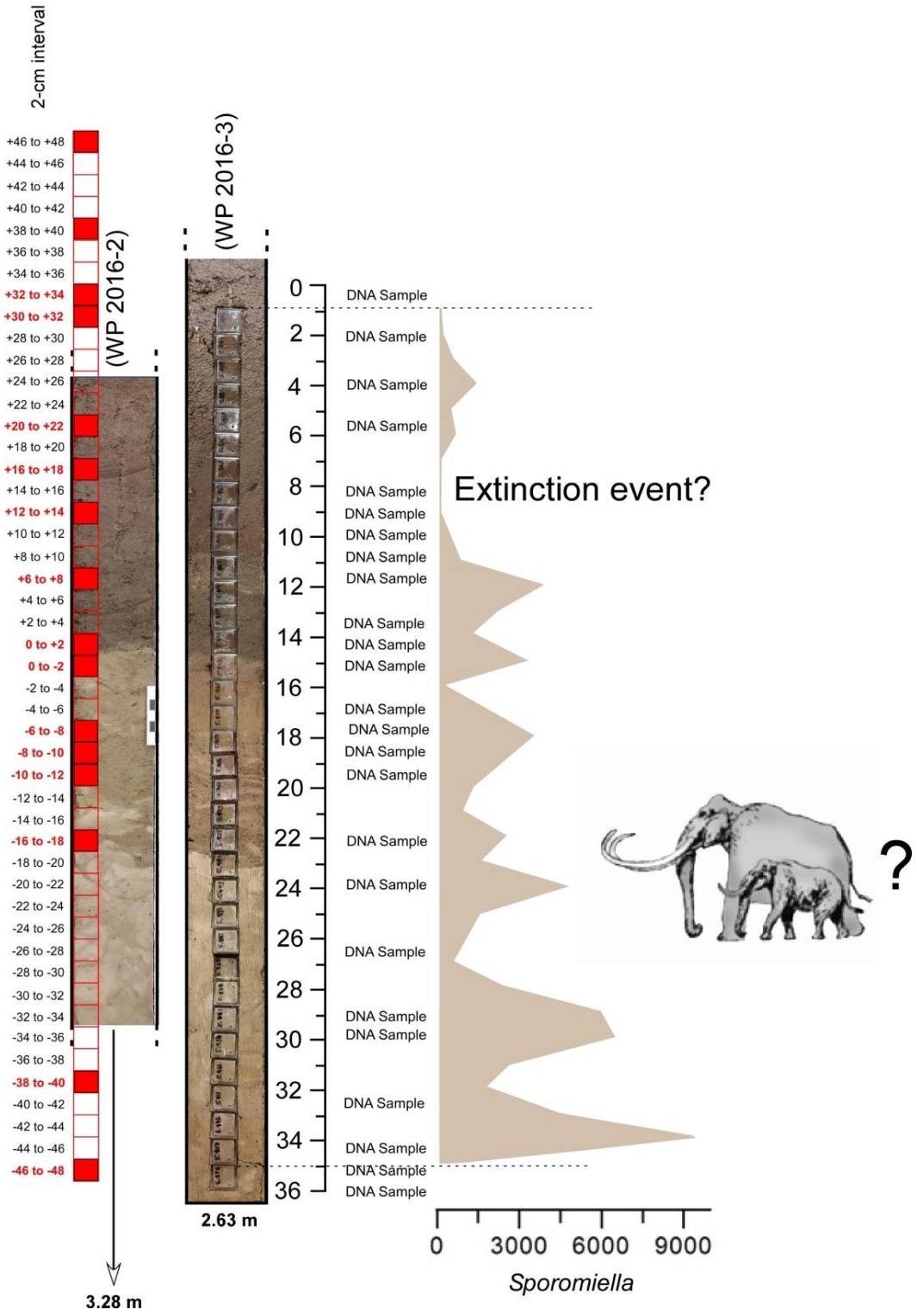

Figure II-10. Section of White Pond vibracore showing preliminary *Sporomiella* data and the location of the 25 samples collected for sedaDNA analysis.

Recently, White Pond core samples were shipped to Dr. Sean Pyne-O'Donnell at Nanyang Technological University in Singapore. These samples are being tested for cryptotephra associated with ancient volcanic eruptions in the western United States. The presence of cryptotephra may provide additional chronostratigraphic markers useful for inferring sediment age within the core. Other analyses currently underway include: carbon and nitrogen isotope analysis by Chad Lane at the University of North Carolina (UNC) Wilmington, black carbon or soot analysis by Sid Mitra at East Carolina University (ECU), and loss on ignition (LOI) and X-Ray diffraction (XRD) analysis of sediments by David Mallinson also at ECU.

Hawthorne Deed Abstractions

J. Haley Grant and Anita Lehew

In FY15, SRARP staff J. Haley Grant began researching the land ownership history of pre-SRS tracts I-825 and I-826. In FY17, Dr. Keith Stephenson contracted researcher Anita Lehew to further the research into the Hawthorne land ownership history. The additional findings will complement other Hawthorne research completed by Dr. Stephenson and volunteer George Heath. Tracts I-825 and I-826 were part of the small community of Hawthorne in the Sleepy Hollow Township. Scholarly publications, deeds found in Aiken and Barnwell counties, historical newspaper articles, and census records were utilized.

Eligibility Determination of the Lancaster Armory Complex, Lancaster, South Carolina, and Eligibility Determination of Four Buildings at TAG Complex, Columbia, South Carolina

J. Haley Grant

National Register of Historic Places eligibility reports for the South Carolina Army National Guard and presentation to the Horse Creek Historical Society

In August of 2016, SRARP assistant curator J. Haley Grant was given the opportunity to work under Dr. Karen Smith, Applied Research Division director with the South Carolina Institute of Archaeology and Anthropology. Ms. Grant served as a contract architectural historian for two National Register of Historic Places eligibility projects contracted by the South Carolina Army National Guard. Lancaster Armory Complex in Lancaster, South Carolina, comprised one report, while four buildings within Columbia's Adjutant General Complex comprised the second report.

Additionally, Ms. Grant used the armory research to present on Aiken County's old Warrenville Armory history to the Horse Creek Historical Society. Warrenville Armory was designed by noted South Carolina architect Heyward S. Singley and built in 1939. It is an Art Deco design, with similar designs having been built at Fort Mill, West Columbia, Hartsville, and Winnsboro, to name a few. The old Warrenville Armory still stands and is now private commercial space.

PART III. PUBLIC EDUCATION

EDUCATIONAL OUTREACH

Christopher R. Moore and Jessica Phillips

As set forth in the PMOA and implemented through the ARMP (SRARP 2013), the SRARP offers a variety of educational and outreach programs each year. Activities include archaeological displays, lectures, tours, and special assistance for the public. Outreach activities in FY17 continued with an emphasis on local archaeological displays. Programs for schools included the very popular "You Be the Archaeologist" program conducted at the Silver Bluff Audubon Center & Sanctuary located near Jackson, South Carolina. In FY17, ~100 students participated in the program at Silver Bluff, while an estimated 3,600 people attended public outreach displays at USC Aiken's Science Education and Enrichment Day (SEED).

Staff Member Addition

Near the end of this fiscal year, Jessica Phillips joined the SRARP staff as the new Coordinator of Public Outreach. Phillips is a native of Barnwell County, where she lives with her husband and daughter. She has seven years of experience working with public archaeology projects throughout the Southeast. Some of the projects she has been involved with include: field schools at the Topper site (SC), the Bells Bend Archaeological Project (TN), excavations at the Daniels site (FL), excavations/field school at Walnut Grove Plantation (SC), and excavations at the Fisher site (SC). Her research interests include paleodermatoglyphics (study of ancient fingerprints) and prehistoric archaeology of North America. In 2013, she presented research on the Fisher site at the Annual Conference of the Archaeological Society of South Carolina and presented research on paleodermatoglyphics at the Paleoamerican Odyssey Conference in New Mexico. Mrs. Phillips earned a Master of Science degree in Criminal Justice from Charleston Southern University. She is also a graduate of the National Forensic Academy, where she earned 400 credit hours training on topics such as Latent Fingerprint Processing, Forensic Anthropology, and Photography. Prior to joining the SRARP, Phillips was a deputy sheriff for Barnwell County, SC. She continues to work in the law enforcement field part-time as an officer for the Blackville Police Department.

Updated Educational Programs

Many of the existing educational programs and public displays received an update as the new public outreach coordinator settled into her job. Most of these programs received minor updates, such as more recent photos being included in PowerPoint presentations and updated placards being made for public displays. A new program titled "Archaeology in the Classroom" was created. This program was designed for 2nd - 5th grade students and consists of a PowerPoint presentation introducing students to archaeology, along with a hands-on activity to reinforce the lesson. The hands-on portion of this program includes activities such as Cookie Excavation, Pottery Refit, PB&J

Archaeology, and a mock excavation. Multiple activity selections allow students to participate in concurrent sessions of the program.

With many educational programs in the process of being updated and developed, the public outreach coordinator also participated in two programs during the month of August. The first of these programs was a public display presented for the SRNS Day of Unity in partnership with the United Way. This display was presented at the SRS Curation Facility and featured the towns of Ellenton, Dunbarton, and Meyers Mill. The display also featured several artifacts that led to a discussion of the 12,000 years of history on the SRS. Approximately 200 guests attended this event. The second public event the SRARP participated in during the month of August was the Allendale County Back to School Block Party. During this event, students, teachers, and parents from Allendale County schools (elementary, middle, and high) were able to view a display about archaeology and experience hands-on exhibits. Exhibits included casts of artifacts depicting the steps to produce a spear point and a station where students could grind beans with an authentic metate. Administrators and teachers from these schools were able to learn more about the SRARP, its educational programs, and how to set up an in-classroom presentation. Approximately 400 students, parents, faculty, and staff members attended this event.

As a means of networking with school administrators, outreach program information packets were distributed by hand to administrators of each elementary and primary school in Barnwell and Allendale counties. These packets contained an introductory letter about the SRARP outreach program, a contact sheet for the SRARP's outreach coordinator, a copy of the PowerPoint presentation "Archaeology in the Classroom," and activity handouts for several of the activities included in the "Archaeology in the Classroom" program. These packets were designed to allow school administrators and teachers to become familiar with some of the educational programs the SRARP provides and to allow teachers to select the most appropriate program for each specific class based on class size, grade level, and time available.

Outreach program information packets were also distributed to each library in Barnwell and Allendale counties, as well as to the main branch of the Aiken County Public Library. These packets were designed to inform library staff about the SRARP's public outreach program and to provide examples of the activities the SRARP would like to perform in the libraries. As a result of one of these packets, the SRARP will be partnering with the Barnwell County Public Library and the Barnwell County Museum to provide a three-week program for homeschool students, as well as a three-week afterschool program titled "Past-Port to the Humanities" for third grade students throughout Barnwell County. As part of this program, a mock excavation site will be placed at the museum which will allow students to gain hands-on experience with archaeological excavations.

SRARP VOLUNTEER PROGRAM

Tammy F. Herron and Christopher R. Moore

As part of the SRARP's three-fold mission of compliance, research, and public outreach, we utilize dedicated volunteers to assist in archaeological research. Volunteers aid in a variety of tasks, including washing and sorting artifacts, primary and secondary artifact analysis, analysis of archaeological sediments (i.e., sieving), flotation, data entry, and photocopying. Indeed, much of the research that we carry out would not be possible without the assistance and support of the volunteers.

The SRARP involves interested members of the public in geoarchaeological and paleoenvironmental research of Carolina bays and archaeological sites located throughout the CSRA via the Carolina Bay Volunteer Research Program (CBVRP). In FY17, CBVRP volunteers logged approximately 1,050 hours. Volunteer efforts this year consisted almost entirely of lab work to process artifacts and geological samples collected from Langley Pond in Aiken County and White Pond located in Kershaw County. Rooney Floyd, John Kolmar, Bob Van Buren, and John Whatley continued to conduct lab work in support of these research activities. Numerous other volunteers assisted in a week-long public archaeological excavation at Langley Pond. John Whatley has also been working with existing collections to develop a lithic raw material type collection of representative samples collected from Georgia, North Carolina, and South Carolina.

George Heath, a former resident of the area that would become the SRS, has been assisting Program Director Keith Stephenson with the Hawthorne History Project. Mr. Heath is an invaluable source for oral history regarding the former community of Hawthorne. Throughout FY17, he has continued to compile biographies of many of the former inhabitants of the community of Hawthorne based on his recollections and a review of the census records for the area. Mr. Heath and Dr. Stephenson visited more local cemeteries to document graves of some of the former residents of Hawthorne, including Matlock Baptist Church Cemetery near Jackson, St. Paul United Methodist Church Cemetery in New Ellenton, and Talatha Baptist Church Cemetery near Aiken. Mr. Heath also contributed his time through documentary research regarding specific postal routes and deed title searches for the Hawthorne area. Additionally, he participated in several public presentations, as well as played a lead role in the documentary on Hawthorne produced by George Wingard and directed by Patrick Hayes (see Cinematic Outreach section below). As a result of his volunteer work with the program, Mr. Heath logged in 336 hours this fiscal year.

Long-time volunteer Jill Trefz returned in February 2017 and logged 117.5 hours of work. Ms. Trefz processed artifacts, entered data into the SRARP's database of radiocarbon dates, and assisted with sorting historic ceramics for minimum vessel counts.

Volunteers have been an integral part of the SRARP since the program's inception in 1973. Staff members of the SRARP are sincerely grateful for the contributions of these amateur archaeologists. Over the course of the fiscal year, program

volunteers have logged over 1,500 hours of work. The staff of the SRARP appreciates the work of our volunteers in helping further the mission of the program.

CINEMATIC OUTREACH

George L. Wingard

In FY17, the SRARP and Scrapbook Video Production co-produced documentary *Discovering Dave: Spirit Captured in Clay* continued to screen for smaller local venues, as well as for film festivals around the country. The film won "Best Professional Film" at the Ogeechee International History Film Festival held in Statesboro, Georgia, and also screened at the Vero Beach International Film Festival, Vero Beach, Florida. Its two screenings at the Vero Beach Festival drew large crowds that had previously viewed an exhibit of Dave's work at the Vero Beach Art Museum. The SRARP Dave jar traveled to both events in order to allow patrons to be introduced to an example of his skill (Figure III-1).

September 2016 also saw the SRARP complete production of a short film documenting the former community of Hawthorne, a community displaced by the coming of the SRS. The story is told by two of its former residents, Henry Brown and George Heath. Patrick Hayes and SRARP staff member George Wingard finished filming *Reconstructing Hawthorne* and, soon afterwards, the film won "Audience Favorite" at the 2016 Arkhaios Cultural Heritage and Archaeology Film Festival. In February, the film premiered for the Brown and Heath families in Augusta, Georgia (Figure III-2), and later in the month at Aiken Technical College near Graniteville, South Carolina, to a large audience. *Reconstructing Hawthorne* also screened at the Ogeechee International History Film Festival where it won "Second Place - Best Professional Film." It was a great night for both SRARP films.

In May 2017, George Wingard began production on the SRARP's third film tentatively entitled *From Mart to Art: Repurposing of the Leigh Banana Case Commissary*. Located in the swamps of Barnwell County, South Carolina, the Leigh Banana Case Company was a large lumber mill that cut and milled lumber for the construction of baskets and crates. With the announcement of the impending construction of the SRS in 1950, the mill and its supporting village had to close, and the residents were forced to evacuate. One of the small village buildings—the company store—was relocated approximately twenty miles away, where it is now an icon in the Barnwell community (Figure III-3). This new short film will discuss the building's history, relocation, and adaptive reuse over the past 70 years. Today, the structure houses the Little Red Barn Pottery Art & Frame Gallery. With the help of University of South Carolina Broadcast Journalism student Sabrina Shutters, the film is scheduled to be completed in late 2017/early 2018.

Figure III-1. The SRARP Dave jar being examined by interested patrons at the Vero Beach International Film Festival.

Figure III-2. George Wingard, Hawthorne residents George Heath and Henry Brown, and Patrick Hayes at the premier of the film for the Heath and Brown families.

Figure III-3. Current store owner Elizabeth Ringus throwing pottery that she sells in her shop The Little Red Barn Pottery.

JOURNALISTIC OUTREACH

George L. Wingard

During FY17, numerous SRARP outreach projects and venues were publicized in various local and out-of-state newspapers and magazines.

Editor
2016 Professor Top Picks. *The Oberlin Review*, 16 September:A9. Oberlin, OH.

Bolles, Christian
2016 Archaeology, Storytelling Converge in *Discovering Dave*. *The Oberlin Review* 23 September:2A. Oberlin, OH.

Biles, Dede
2016 Discovered Pot by Dave Drake Shown at Aiken Historic Foundation Meeting. *The Aiken Standard* 17 October:2A. Aiken, SC.

Wood, Larry
2016 Aiken Tech Opens Lecture Series with Dave the Potter Documentary. *The Aiken Standard* 28 October:2A. Aiken, SC.

Girardeau, Tripp
2016 Grave of the Little Boy Still Remembered after 161 Years. *The Aiken Standard,* 31 October:3A. Aiken, SC.

Biles, Dede
2016 New Documentary Film Revives Memories of Hawthorne Community. *The Aiken Standard,* 28 November:3A. Aiken, SC.

Crone, Anita
2016 Old Bell, Jug to be Dedicated Thursday. *The Sun News,* 8 December:1A, 5A. Georgetown, SC.

Editor
2016 Dave on Display. *The Edgefield Advertiser,* 16 December:1A. Edgefield, SC.

2017 Dave the Potter's 214-Year Journey into the South Carolina Hall of Fame. *Bella Magazine,* February:16-19. Aiken, SC.

2017 Some Details of Edgefield Potter's Life Still Unknown. *The Aiken Standard,* 22 February:3A. Aiken, SC.

2017 New Documentary Looks at Town Lost in Creation of SRS. *The Augusta Chronicle,* 26 February:1-2C. Augusta, GA.

2017 Former Town Hits Big Screen. *The Aiken Standard,* 27 March:2A. Aiken, SC.

2017 SRS History in the Making. *The Augusta Chronicle,* 11 May:1-2B. Augusta, GA.

2017 Aiken County Historical Museum Celebrates Second Dave Day. *The Aiken Standard,* 16 July:1A. Aiken, SC.

Petersen, Bo
2017 Did Clovis Comet Strike Create the Carolina Bays of South Carolina? *Charleston Post and Courier,* 2 April:A5. Charleston, SC.

Harvey, Leifert
2017 Cooling Elements. In *Natural History Magazine*, May.

2017 Did a Comet Kill the Clovis? In *Early American Life Magazine,* June.

Biles, Dede
2017 Local Scientist Leads Team that Finds Evidence of Possible Comet Impact. *The Aiken Standard,* 7 July:3A. Aiken, SC.

Caperton Morton, Mary
2017 Platinum May Point to Impact Theory for Younger Dryas. In *Earth Magazine*, July.

Waldrop, Melinda
2017 Pt Anomaly Paper. In *Breakthrough Magazine* at: https://sc.edu/about/offices_and_divisions/research/news_and_pubs/breakthrough_magazine/digging_for_answers.php

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Cabak, Melanie A., and Mary M. Inkrot
1997 *Old Farm, New Farm: An Archaeology of Rural Modernization in the Aiken Plateau, 1875-1950*. Savannah River Archaeological Research Papers 9. Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Petaev, M., S. Huang, S. B. Jacobsen, and A. Zindler
2013 Large Pt Anomaly in the Greenland Ice Core Points to a Cataclysm at the Onset of Younger Dryas. *Proceedings of the National Academy of Sciences*, U.S.A. 110:12917–12920.

Savannah River Archaeological Research Program (SRARP)
1989 *Archaeological Resource Management Plan of the Savannah River Archaeological Research Program*. Submitted to the Savannah River Operations Office, US Department of Energy. Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

2013 *Annual Review of Cultural Resource Investigations by the Savannah River Archaeological Research Program: Fiscal Year 2013*. Submitted to the Savannah River Operations Office, US Department of Energy. Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

2013 *Archaeological Resource Management Plan of the Savannah River Archaeological Research Program*. Submitted to the Savannah River Operations Office, US Department of Energy, Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

2015 *Annual Review of Cultural Resource Investigations by the Savannah River Archaeological Research Program: Fiscal Year 2015*. Submitted to the Savannah River Operations Office, US Department of Energy. Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Watts, William A.
1980 Late-Quaternary Vegetation History at White Pond on the Inner Coastal Plain of South Carolina. *Quaternary Research*, 13:187-199.

APPENDIX. PUBLICATIONS AND PROFESSIONAL ACTIVITIES

PUBLISHED PAPERS

Cobb, Charles R., and Keith D. Stephenson
2017 Cosmic Debt and Relational Consumption. In *Foreign Objects: Rethinking Indigenous Consumption in American Archaeology*. Edited by Craig N. Cipolla, pp. 143-161. The University of Arizona Press, Tucson.

Moore, Christopher R., Allen West, Malcolm A. LeCompte, Mark J. Brooks, I. Randolph Daniel, Jr., Albert C. Goodyear, Terry A. Ferguson, Andrew H. Ivester, James K. Feathers, James P. Kennett, Kenneth B. Tankersley, A. Victor Adedeji, and Ted E. Bunch
2017 Widespread Platinum Anomaly documented at the Younger Dryas onset in North American Sedimentary Sequences. *Scientific Reports* 7, 44031; doi:10.1038/srep44031.

PROFESSIONAL PAPERS AND POSTERS

Cooper, Jessica M.
2016 A Functional Analysis of Yadkin Bifaces in the Middle Savannah River Valley. Paper presented at the 73rd Annual Meeting of the Southeastern Archaeological Conference, Athens, GA.

2017 A Functional Analysis of Yadkin Bifaces in the Middle Savannah River Valley. Paper presented at the 43rd Annual Conference of the Archaeological Society of South Carolina, Columbia, SC.

Moore, Christopher R., and Tommy Charles
2016 Evaluating Diachronic and Geospatial Trends in South Carolina Prehistory from an Analysis of the Statewide Collector Survey. Poster presented at the 73rd Annual Meeting of the Southeastern Archaeological Conference, Athens, GA.

Moore, Christopher R., Allen West, Malcolm A. LeCompte, Mark J. Brooks, I. Randolph Daniel, Jr., Albert C. Goodyear, Terry A. Ferguson, Andrew H. Ivester, James K. Feathers, James P. Kennett, Kenneth B. Tankersley, A. Victor Adedeji, and Ted E. Bunch
2017 Widespread Platinum Anomaly Documented at the Younger Dryas Onset in North American Sedimentary Sequences Consistent with Greenland Ice Core Data. Poster presented at the 66th Annual Meeting of the Southeastern Geological Society, Richmond, VA.

Stephenson, Keith, and Karen Y. Smith
2016 Swift Creek in Time and Space. Invited paper presented at 73rd Annual Meeting of the Southeastern Archaeological Conference, Athens, GA.

Stephenson, Keith
2017 Aspects of Carved Paddle Stamped Designs from the Middle Mississippi Period. Invited paper presented at the 82nd Annual Meeting of the Society for American Archaeology, Vancouver, BC Canada.

PUBLISHED REPORTS

Grant, J. Haley
2017 Eligibility Determination of the Lancaster Armory Complex, Lancaster, South Carolina. Report submitted to the South Carolina Army National Guard.

2017 Eligibility Determination of Four Buildings at TAG Complex, Columbia, South Carolina. Report submitted to the South Carolina Army National Guard.

GRADUATE THESIS

Cooper, Jessica M.
2017 A Functional Analysis of Yadkin Bifaces in the Middle Savannah River Valley. Master's Thesis, Department of Anthropology, University of South Carolina.

POPULAR LITERATURE

Moore, Christopher R.
2017 The White Pond Human Paleoecology Project. *Legacy,* 21(1):14-17.

PEER REVIEWS OF ARTICLES AND BOOK CHAPTERS

Moore, Christopher R.
2017 Chapter review for *Paleoamerica.*

BOOK REVIEWS

Walter A. Clifford IV
H. Thomas Foster II, Lisa M. Paciulli, and David J. Goldstein. *Viewing the Future in the Past: Historical Ecology Applications to Environmental Issues*. 2016. University of South Carolina Press, Columbia, South Carolina. ISBN-978-1-61117-586-8

OFFICES AND APPOINTMENTS HELD

Grant, J. Haley
Executive Council District 5 Representative for the Confederation of South Carolina Local Historical Societies. Representing Aiken, Bamberg, Barnwell, Calhoun, and Orangeburg counties.

Vice President of the Horse Creek Historical Society of Graniteville, SC.

Herron, Tammy F.
Assistant Journal Editor, *South Carolina Antiquities*, Archaeological Society of South Carolina, Volume 48.

Ex-Officio, Society for Georgia Archaeology.

Chairman, Awards Committee, Society for Georgia Archaeology.

Chairman, Exhibits Committee, Beech Island Agricultural Museum owned by the Beech Island Historical Society, Beech Island, SC.

Board Member, Beech Island Historical Society.

Moore, Christopher R.
Journal Editor, *South Carolina Antiquities*, Archaeological Society of South Carolina.

Vice President, Piedmont Archaeological Studies Trust (PAST).

Pittman, Lisa A.
Board Member and Furnishings Chairman, Meadow Garden Museum, owned by the Georgia State Society Daughters of the American Revolution, Augusta, GA.

Stephenson, Keith
Vice President, Archaeological Society of South Carolina.

Treasurer, Council of South Carolina Professional Archaeologists.

Wingard, George L.
Cultural Advisor, Aiken County Accommodations Tax Committee, Aiken, SC.

Juror, Arkhaios Cultural Heritage and Archaeology Film Festival, Hilton Head, SC.

President, Horse Creek Historical Society, Graniteville, SC.

Walter A. Clifford IV
Strategic Arts Planning Committee Member. For the enhancement of curriculum coordination among educators and stakeholders toward the implementation of Science, Technology, Engineering, Arts, and Math (STEAM) programs at Aiken Elementary School.

PROFESSIONAL ORGANIZATION SERVICE

Cooper, Jessica M.
Co-organizer of Intimate Grammars: A Diné (Navajo) Poetry Panel. Department of Anthropology, University of South Carolina, Columbia.

Grant, J. Haley

Assisted Brenda Baratto, Director of the Aiken County Historical Museum, in interviewing two former students of historic African-American schools, Georgia Collier Scott and Ambassador Britton.

Guest curator for the Aiken County Historical Museum's "Rosenwald Schools of Aiken County."

Successfully nominated George L. Wingard for the 2017 Alexander S. Salley Professional Service Award offered by the Confederation of South Carolina Local Historical Societies.

Herron, Tammy F.

Assisted with the Society for Georgia Archaeology's 24th Annual Georgia Archaeology Awareness promotion for Georgia Archaeology Month 2017 themed "Raised from the Depths: The Archaeology of the Civil War in Georgia."

Assisted in compiling registration packets for the 73rd Annual Meeting of the Southeastern Archaeological Conference, Athens, GA.

Assisted in manning a table for the Society for Georgia Archaeology and the ArchaeoBus public outreach display at the 73rd Annual Meeting of the Southeastern Archaeological Conference, Athens, GA.

CONSULTING

Grant, J. Haley

Architectural historian under the South Carolina Institute of Archaeology and Anthropology's Applied Research Division for a South Carolina Army National Guard contract. This project consisted of researching, surveying, and writing two National Register of Historic Places eligibility reports.

Herron, Tammy F.

Archaeological Consultant, Aiken County Historical Museum, Aiken, SC.

Archaeological Consultant, Beech Island Historical Society, Beech Island, SC.

Archaeological Consultant, Hampton County Museum, Hampton, SC.

Archaeological Consultant, Oakley Park Museum, Edgefield, SC.

Archaeological Consultant, Silver Bluff Audubon Center and Sanctuary, Jackson, SC.

Moore, Christopher R.

Archaeological Consultant, Hampton County Museum, Hampton, SC.

GRANTS AND AWARDS

George L. Wingard

Presented the Alexander S. Salley Award by the South Carolina Confederation of Local Historical Societies for 25 years of public service.

Moore, Christopher R. and Jessica M. Cooper

Archaeological Research Trust, South Carolina Institute of Archaeology and Anthropology grant for proposal titled: "Immunological Analysis of Paleoindian and Woodland Hafted Bifaces: The Search for Evidence of Extinct Megafauna" ($7,000.00).

ACADEMICS

King, Adam

Fall Semester 2016 – Instructor, Department of Anthropology, University of South Carolina, ANTH 101 (Primates, People, and Prehistory).

Fall Semester 2016 – Instructor, Department of Anthropology, University of South Carolina, ANTH 591 (Ethnographic Sketch of Native North Americans).

Spring Semester 2017 – Instructor (2 Sections), Department of Anthropology, University of South Carolina, ANTH 101 (Primates, People, and Prehistory).

Spring Semester 2017 – Instructor, Department of Anthropology, University of South Carolina, ANTH 333 (North American Prehistory).

Summer Semester 2017 – Instructor, Department of Anthropology, University of South Carolina, ANTH 102 (Understanding Other Cultures).

MA dissertation committee: Grant Stouffer, Department of Anthropology, Texas State University, San Marcos. MA completed Fall, 2015.

MA dissertation committee: Jesse Nowack, Department of Anthropology, Texas State University, San Marcos.

Ph.D. dissertation committee: Christopher L. Thornock, Department of Anthropology, University of South Carolina, Columbia.

Ph.D. dissertation committee: Johann A. Sawyer, Department of Anthropology, University of South Carolina, Columbia.

Moore, Christopher R.

Ph.D. dissertation committee: Jacob Turner, Department of Geography, University of North Carolina, Greensboro, NC.

Stephenson, Keith
MA thesis committee: Jessica M. Cooper, Department of Anthropology, University of South Carolina, Columbia.

PUBLIC SERVICE ACTIVITIES

September 2016

Moore, Christopher R.
Hitchcock Woods Archaeology Field Day, Aiken, SC.

George L. Wingard
Screened the SRARP documentary *Discovering Dave: Spirit Captured in Clay* for the "By the Sweat of our Brows" program at Historic Brattonsville, McConnells, SC.

Presentation on "Dave the Potter" to Prospect Elementary fourth and fifth graders, Oberlin, OH.

Presentation on "Dave the Potter" to Welcome Nursing Home, Oberlin, OH.

Screened the SRARP documentary *Discovering Dave: Spirit Captured in Clay* for the Oberlin Heritage Center, Oberlin, OH.

October 2016

Herron, Tammy F.
Staffed an archaeological exhibit displayed at CoastFest; an event sponsored by the Georgia Department of Natural Resources Coastal Resources Division, Brunswick, GA (over 8,000 attendees).

Moore, Christopher R.
USC Aiken Seed Day/ASSC Fall Field Day (~3,600 attendees).

"You Be the Archaeologist" program for students at the Silver Bluff Audubon Center and Sanctuary, Jackson, SC.

Wingard, George L.
Hawthorne presentation for the Aiken Historical Society, Aiken, SC.

Presentation on the former towns of the Savannah River Site for the Department of Energy's Engineering Leadership Development Program (ELDP).

Screened the SRARP documentary *Discovering Dave: Spirit Captured in Clay* for Aiken Technical College's Inaugural Lecture Series entitled "Dynamic Dialogues," Graniteville, SC.

November 2016

Moore, Christopher R.
Presentation regarding analysis of blood residue found on hafted bifaces for the American Indian Heritage Command Program, Fort Gordon, Augusta, GA.

Wingard, George L.
Screened the SRARP documentary "Discovering Dave: Spirit Captured in Clay" for Evans County Public Library, Evans, GA.

Presentation on Marina Gregg's Quilt for the Men's Group at St. John United Methodist Church, Graniteville, SC.

December 2016

Wingard, George L.
Screened *Reconstructing Hawthorne* for the Arkhaios Cultural Heritage and Archaeology Film Festival, Hilton Head, SC. Winner: Audience Favorite.

Screened the SRARP documentary *Discovering Dave: Spirit Captured in Clay* for the Horry County Museum, Conway, SC.

Screened the SRARP documentary *Discovering Dave: Spirit Captured in Clay* for the Georgetown Museum, Georgetown, SC.

Presentation on the enslaved potter Dave and the former towns of the SRS for the Citizens Advisory Board (CAB), Aiken, SC.

January 2017

Wingard, George L.
Screened the SRARP documentary *Discovering Dave: Spirit Captured in Clay* for the George Association of Museums and Galleries in Edgefield, SC.

February 2017

Moore, Christopher R.
Site visit with Johnny Williams on Brier Creek, Burke County, Georgia.

Moore, Christopher R. and Tammy F. Herron
Meeting in New Ellenton with LaClaire Laffitte, representative from the Hampton County Museum, to consult on museum display.

Wingard, George L.
Screened the SRARP documentary *Reconstructing Hawthorne* for the Armstrong State University Archaeology Department, Savannah, GA.

Screened the SRARP documentary *Reconstructing Hawthorne* for the Heath and Brown families, Augusta, GA.

Presentation regarding filmmaking to a Marketing Class at the University of South Carolina-Aiken for Mr. Brent Hoover, Aiken, SC.

March 2017

Moore, Christopher R.
Presentation about the Younger Dryas impact hypothesis for the Augusta Archaeological Society, Augusta, GA.

Wingard, George L.
Screened the SRARP documentary *Reconstructing Hawthorne* for the South Carolina Federation of Museums, Walterboro, SC.

Screened the SRARP documentaries *Discovering Dave: Spirit Captured in Clay* and *Reconstructing Hawthorne* at the Ogeechee International Film Festival, Statesboro, GA. Winner: Most Professional and Runner-up Most Professional.

April 2017

Grant, J. Haley,
Judge for the South Carolina National History Day state finals competition, Blythewood, SC.

Herron, Tammy F.
Staffed an archaeological exhibit at "Georgia On My Mind Day," an event sponsored by the Georgia Department of Transportation, Georgia Visitor Information Center, Sylvania, GA.

Created a display of colonial period artifacts and information regarding the excavation of the Galphin site for attendees of the 11th Annual Historic Beech Island Tour, Silver Bluff Audubon Center and Sanctuary, Jackson, SC.

Moore, Christopher R.
"You Be the Archaeologist" program for students at the Silver Bluff Audubon Center and Sanctuary, Jackson, SC (2 programs).

Presentation regarding blood residue analysis, as well as the impact of the Statewide Collector Survey. Presented at the exhibit opening showcasing the Causey Native American Collection, Hampton County Museum, Hampton, SC.

Wingard, George L.
Tour of the former town of Dunbarton for Savannah River Site Heritage Tours, SRS.

May 2017

Grant, J. Haley
Presentation entitled "The South Carolina National Guard and Warrenville Armory" for the Horse Creek Historical Society, Graniteville, SC.

Moore, Christopher R.
Organized and staffed an exhibit for Archaeology Day, an event co-sponsored by the Augusta Archaeological Society and the Augusta Museum of History, Ezekiel Harris House, Augusta, GA.

Presentation about the Younger Dryas impact hypothesis for the Hilton Head Island Chapter of the Archaeological Society of South Carolina, Hilton Head, SC.

Conducted volunteer excavations at White Pond near Elgin, SC.

Wingard, George L.
Tour of Pleasant Hill Cemetery and the former town of Dunbarton, for the King and Roundtree families.

Represented the SRARP at the 64th annual Dunbarton Reunion.

Tour of the former town of Dunbarton for Savannah River Site Heritage Tours, SRS.

Screened the SRARP documentary *Discovering Dave: Spirit Captured in Clay* for the Horry County Museum, Conway, SC.

Tour of the former town of Ellenton for the SRS Heritage Council, SRS.

June 2017

Stephenson, Keith
Assisted Dr. Karen Y. Smith (of the Applied Research Division, SCIAA) with the reconstruction of pottery sherds from Spanish Mount, Morning Session with 12 alumni for the University of South Carolina, College of Arts and Sciences' Annual Alumni and Friends Weekend at the Coast event "Putting it Together Again for South Carolina" held at the Baruch Marine Field Laboratory, Georgetown, SC.

Wingard, George L.
Screened the SRARP documentary *Discovering Dave: Spirit Captured in Clay* at the Vero Beach International Film Festival, Vero Beach, FL.

Tour of the former town of Ellenton for the Department of Energy's ELDP, SRS.

July 2017

Wingard, George L.
Screened the SRARP documentary *Discovering Dave: Spirit Captured in Clay* at the Aiken County Public Museum for the 2nd Annual Dave Day, Aiken, SC.

August 2017

Phillips, Jessica, George Wingard, and Haley Grant
SRARP archaeology display presented for the SRNS Unity Day in partnership with the United Way at the 315-M Curation Facility, SRS (~200 attendees).

Phillips, Jessica
SRARP archaeology display presented at the Allendale County Back to School Block Party at Allendale-Fairfax High School, Fairfax, SC (~400 attendees).

Moore, Christopher R.
Presentation regarding ongoing research at White Pond for staff of the South Carolina Department of Natural Resources Heritage Trust Program, Parker Annex Archaeology Center, Columbia, SC.

Presentation regarding the platinum (Pt) anomaly in the Greenland ice sheet documented at the Younger Dryas onset for the Augusta Astronomy Club, Augusta University, Augusta, GA.