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Thank You! Nena Powell Rice, Editor, (803) 576-6573 Office, (nrice@sc.edu).



UNIVERSITY OF SOUTH CAROLINA College of Arts and Sciences

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Stanley Austin South February 2, 1928 - March 20, 2016



Stan South, a legendary giant in historical archaeology. (Photo by USC Publications Department)

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Director's Notes By Steven D. Smith

In this issue of *Legacy*, we pay tribute to our recently lost colleague, Stan South, who died on March 20, 2016. Many years ago, there was some trouble brew'in at the institute and Stan was thinking of leaving. A staff member exclaimed "There goes the franchise!" Indeed, this year we have lost our franchise player, the person that was the face of SCIAA for several decades. Chester DePratter has written a wonderful tribute to him for this issue, and David South and Jim Legg have assembled a photo album that ought to make this issue a collector's item. In honor of Stan, the SCIAA has created the Stanley South Student Archaeological Research Fund. The fund will be available to any undergraduate or graduate student in the Department of Anthropology, University of South Carolina, conducting research on any topic related to South Carolina archaeology. We hope in the future to be able to provide a website portal to give to this fund, but in the meantime, anyone interested, may contribute by sending a check made payable to: USC Educational Foundation, and send to Nena Powell Rice, here at SCIAA, and mark the check as the Stanley South Fund.

I am happy to announce that Andy White, Al Goodyear, and Elizabeth Bridges have recently occupied their new labs at Barnwell College. Graduate student, Joe Wilkinson, has also joined them. Many things are still in boxes, but, they are up and running. The facility includes wet labs for washing artifacts, storage space, and areas to lay out artifacts for analysis.



Figure 1: Al Goodyear and Joe Wilkinson at work in the new Barnwell Lab. Joe was excited to learn that he only needs to analyze 68 more tubs of lithics to complete his thesis. (Photo by Steve Smith)

The College of Arts and Sciences (CAS) facilities staff did an outstanding job of painting walls, polishing floors, and just cleaning up, and we really have a state of the art lab. The SCIAA cannot thank enough CAS Interim Dean Roger Sawyer, our new Dean Lacy Ford, Director of Space Planning John Moring, Building Coordinator Gary Bennett, and many others who made this possible. There are a lot of "on hold" research projects that can now be started or completed, now that we have the room to breathe. It also relieves some pressure at our main building at 1321 Pendleton. We plan an open house in the fall

Chester DePratter reminded me that the Archaeological Trust is now 25 years old. We are planning some celebrations over the course of this year so, stay tuned as they are announced on our Facebook page (did I tell you that we now have a SCIAA Facebook page?) and other venues.

Jim Legg updates readers on our latest field trip to Mississippi in this issue. The results raised more questions than answered. The last day we were rained out, and I talked Jim into visiting Waverly Plantation with me, a 19th century plantation that included a house site that was the focus of my master's thesis. I had not been there since the late 1970s when I was one of many archaeologists involved in the mitigation efforts for the Tennesse-Tombigbee Waterway. My site is now a campground. A large parking lot and boat ramp now cover the location of an antebellum cotton mill. We were supposed to find that mill during the project, but only a few bricks were visible on the surface. Augering indicated more brick rubble; nothing in situ. A backhoe was brought in and three long trenches were excavated revealing nothing but a few more brick fragments. While we were standing around discussing the mystery, one of the trench walls suddenly caved in, revealing a perfectly preserved, and massive, brick foundation. Our report dryly noted that "Trench #3 came within 2 cm of a standing brick wall on the west side and 15 cm away from a brick wall on the east side, yet encountered neither."

ARCHAEOLOGY IN SOUTH CAROLINA Exploring the Hidden Heritage of the Palmetto State Edited by Adam King

Adam King's *Archaeology in South Carolina* contains an overview of the fascinating archaeological research currently ongoing in the Palmetto State and features essays by twenty scholars studying South Carolina's past through archaeological research. The scholarly contributions are enhanced by more than one hundred black-and-white and thirty-eight color images of some of the most important and interesting sites and artifacts found in the state.

South Carolina has an extraordinarily rich history encompassing some of the first human habitations of North America as well as the lives of people at the dawn of the modern era. King begins the anthology with the basic hows and whys of archaeology and introduces readers to the current issues influencing the field of research. The contributors are all recognized experts from universities, state agencies, and private consulting firms, reflecting the diversity of people and institutions that engage in archaeology.

The volume begins with investigations of some of the earliest Paleo-Indian and Native American cultures that thrived in South Carolina, including work at the Topper Site along the Savannah River. Other essays explore the creation of early communities at the Stallings Island site, the emergence of large and complex Native American polities before the coming of Europeans, the impact of the coming of European settlers on Native American groups along the Savannah River, and the archaeology of the Yamasee, a people whose history is tightly bound to the emerging European society.

The focus then shifts to Euro-Americans with an examination of a long-term project seeking to understand George Galphin's trading post established on the Savannah River in the eighteenth century.

The volume concludes with the recollections of a life spent in the field by South Carolina's preeminent historical archaeologist Stanley South, now retired from the South Carolina Institute of Archaeology and Anthropology at the University of South Carolina.

Archaeology in South Carolina



Adam King is a research associate professor in the South Carolina Institute of Archaeology and Anthropology and special projects archaeologist for the Savannah River Archaeological Research Program at the University of South Carolina. King has conducted research in the Southeast since 1987 and specializes in the Mississippian period and the political economies of chiefdoms. He is the author of *Etowah: The Political History of a Chiefdom Capital*.

March 2015, 304 pages, 38 color and 103 b&w illus.

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A Tribute Stanley Austin South (1928-2016)

By Chester B. DePratter

Stan South was a larger-than-life figure who played a prominent role in the field of historical archaeology for nearly 60 years. His passing on March 20, 2016, brought to an end a life and career filled with scholarship and accomplishment.

Stan was born and spent the early part of his life in Boone, North Carolina. After a stint in the Navy in 1945, Stan worked briefly as a professional photographer before taking advantage of the G.I. Bill to return to school. He graduated from Appalachian State Teachers College in 1949, and he taught eighth grade in Greensboro, North Carolina, for two years. During that time, Stan found a Hardaway projectile point that led to a meeting with archaeologist, Dr. Joffre Coe, at the University of North Carolina. A few years later, Stan left his career as a photographer and became a student of Dr. Coe, graduating with a master's degree in anthropology in 1959. He was admitted to the University of Michigan for a Ph. D., but personal matters prevented his move north.



Figure 2: Stan South at Brunswick Town excavations.

In the decades following his graduation, Stan worked on numerous prehistoric Native American sites, including the Town Creek Indian Mound and on early lithic sites like Hardaway,



Figure 1: Stan South examining dock remnant at Brunswick Town.

Doerschuk, Gaston, and Morrow Mountain. In 1959, he published a booklet titled "Indians in North Carolina" that sold almost 70,000 copies over the next 25 years.

Stan worked on his first historic site, the 19th century Kron House on Morrow Mountain State Park in 1957, and it was a life changing experience. Impressed with his ability to use artifacts from the Kron House to address questions relating to "function, status, gender, time, technology, and occupation," Stan soon found himself on a course toward a new area of study—historical archaeology. When he told Joffre Coe that he was leaving Town Creek Indian Mound to take a job at historic Brunswick Town near Wilmington, North Carolina, Coe told him, "If you want to end your career in archaeology, I suppose you should take it." This move soon brought Stan to the forefront of the emerging field of historical archaeology.

Over the following decade, Stan worked at Brunswick Town, Fort Anderson, Bethabara, Russellborough,



Figure 3: Stan South with his personal flag at Santa Elena. (Photo from SCIAA Archives)

Old Salem, and Fort Fisher in North Carolina, producing more than 60 reports and published papers. In 1969, he was hired by the South Carolina Institute of Archaeology to be the archaeologist at Charlestowne Landing, as part of South Carolina's Tri-Centennial Celebration. Once work there was completed, he moved on to Ninety Six, the Pawley House, and Fort Moultrie in South Carolina.

Along the way, Stan founded the *Conference on Historic Sites Archaeology Papers* in 1959, and in 1967, he was one of the founders of the Society for Historical Archaeology. He also found time to hone his skills as a painter, sculptor, and poet in his "spare" time.

In 1977, Academic Press published his seminal volume, *Method and Theory in Historical Archaeology*, as well as an edited volume, *Research Strategies in Historical Archaeology*. These volumes brought Stan to the forefront of the field of historical archaeology.

In 1979, Stan began work at the Santa Elena site near Beaufort, a project that would occupy his time for the rest of his career. In his first week of fieldwork at Santa Elena, he found Ft. San Felipe, which was constructed in 1566. Between 1979 and 1985, he worked on Ft. San Felipe, Ft. San Marcos, and two lots, which we later identified as belonging to Santa Elena's Governor from 1580-1587. We continued work together at Santa Elena after 1991, and in 1993, we found a Spanish pottery kiln on the periphery of the site. In 1996, we announced the discovery of French Charlesfort of 1562-1563, and in subsequent years, we explored many parts of the town. During these years, Stan also conducted projects at the Bartlam Pottery at Cainhoy,

and he directed new

investigations at Charles Towne Landing and Ninety Six.

During our years together at Santa Elena, I came to know Stan for his tremendous energy and work ethic. During his entire career as an archaeologist, he worked full weekdays and every evening and weekend with only occasional time off to see a doctor or to take his worn out automobiles to the shop. During our many trips back and forth to Santa Elena, Stan told an endless string of stories about his life and adventures. Somehow, he never repeated himself, perhaps because there was so much to tell! Most of these stories can be found in his memoir, *An Archaeological Evolution*, which was published by Springer Science in 2005.

In his last years at work leading up to his retirement in December 2011, at age 84, Stan worked tirelessly to publish as much as he could, including his M.A. Thesis, a final volume on his work at Brunswick Town, a 60-page annotated vita, and several volumes of poetry that he had written throughout his life. And then, after nearly 60 years of writing and publishing, Stan set aside his pen and he wrote no more.



Figure 4: Stan South in the field. (Photo from SCIAA Archives)

Over the course of his long career, Stan received many honors due to his lifetime dedication to historical archaeology:

1979 Distinguished Alumnus Award, Appalachian State University 1984 Halifax Resolves Award, Historic Halifax Restoration Association 1987 J.C. Harrington Medal, Society for Historical Archaeology 1993 R. L. Stephenson Lifetime Achievement Award, Archaeological Society of South Carolina 1997 Honorary Doctor of Humanities Degree, University of South Carolina 1999 Order of the Palmetto, State of South Carolina 2006 Old North State Award, State of North Carolina 2003 Lifetime Achievement Award, Southeastern Archaeological Conference 2008 Maj. G. Osterhout Archaeological

Southeastern Archaeological Conference 2008 Maj. G. Osterhout Archaeological Stewardship Award, Historic Beaufort Foundation

In April 2016, the Santa Elena Foundation opened the Santa Elena History Center in Beaufort, South Carolina. The Center and its exhibits are the direct result of Stan's decades of work at the Charlesfort/Santa Elena National Historic landmark. Visitors to Beaufort can now learn about the site's history and archaeology. Stan did not live to see the opening of this Center, but I know that he would have been especially proud to have this part of his life story told in a museum setting.

Those of us who worked with Stan and knew him as friend and colleague will always remember him. We will listen for the bold footsteps of his cowboy boots in SCIAA's hallways. We will hope to see his 40-year old Chrysler Imperial pull into his long-time parking space across the street from the Institute. When we see a pig belt buckle or a straw hat filled with feathers, we will imagine Stan once again in the field behind his transit, digging at yet another site. When we read his poems, we will feel wonder at his willingness to share himself so totally with the world, despite his inherent shyness.

From: *The Crescent Moon* (1976) **By Stanley South**

Somewhere in the in-between, Around and among it all, I am a part, Yet forever apart, Of the saga And the song I sing. The river declares, The ruin exclaims, And the broken pot Proclaims its song. To those who will hear, And to those who care to know I have set my course on a mystic sea Where the crescent moon is me.

To honor Stan's many years of work, SCIAA has established The Stanley South Student Archaeological Research Endowment Fund to support undergraduate and graduate student research in archaeology by University of South Carolina students. Contributions by check should be made payable to: USC Educational Foundation and mailed to: Nena Powell Rice, SCIAA—Stan South Fund, 1321 Pendleton Street, University of South Carolina, Columbia SC 29208.



Blue and white bowl with pardalot excavated by Stan South at Santa Elena. (Now used as the ART Logo)



Figure 5: Dr. Chester DePratter in front of the Stan South tribute panel at the Santa Elena History Center. (Photo by Sandy Dimke, Santa elena History Center)

A Stan South Album

Legendary archaeologist Stanley South passed away on March 20, 2016, at the age of 88. On these pages we offer a selection of photographs from Stan's remarkable life, most of which was devoted to historical archaeology in the Carolinas. Stan was a research archaeologist at SCIAA for 42 years, retiring in 2011.

Assembled by David South and James Legg



Boone, N.C., ca. 1932.



Boone, N.C., ca. 1932.



U.S. Navy, 1945.



With his car, Boone, N.C. 1948.



Living back in Boone, N.C., ca. 1952.



The Hardaway point that Stan found near Greensboro, N.C., in 1950, when he was a public school teacher there. The find eventually led to communication with Joffre Coe, and graduate school at UNC Chapel Hill.



Playing the role of Cherokee Chief Atakulla in the outdoor drama "Horn of the West," in Boone, 1952.



Working as a professional photographer in Boone, 1953.



Excavating at the Gaston Site, Halifax Co., N.C., 1955. (Photo by Lewis Binford)



With his wife Jewell, excavating at the Thelma Site, Halifax Co., N.C. 1955. (Photo by Lewis Binford)



Stan's reconstruction of the council house on the platform mound at Town Creek, 1958. (Photo by Joffre Coe)



At Brunswick Town, N.C., ca. 1958. Over the next decade, Stan conducted extensive excavations at 18th century Brunswick Town as archaeologist for the N.C. Department of Archives and History.



At the ruins of St. Phillips Church at Brunswick Town, April 1961.



Excavating at the Asbury Site, Brunswick Co., N.C., 1962.



Wilmington, N.C., 1962.



With dog Claude in Wilmington, September 1962. (Photo by Jewell South)



With one of his sculptures, Wilmington, 1963.



With Ronald Reagan at Orton Plantation, Brunswick Co., N.C., 1962. (Photo by Hugh Morton)



Excavating at Brunswick Town, ca. 1964.



With son David and Ellen Demmy, mending a redware jar from Brunswick Town, ca. 1964. (Photo by Jewell South)



Drafting during the Paca House project, Annapolis, Maryland, February 1967.



Lecturing at the site of the Moravian town of Bethabara, near Winston-Salem, N.C., excavated by Stan between 1963 and 1966.



With Randy Luther (center) and son David after exploring Kosciusko's 1781 siege mine at Ninety Six, 1970. (Photo by Bruce Ezell)



Charles Towne Landing, S.C., November 1969. Stan had recently joined the South Carolina Institute of Archaeology and Anthropology.



Excavating in the moat of Spanish Fort San Marcos, Santa Elena, Parris Island S.C., 1979.



Santa Elena, 1979.



At the Santa Elena press conference at the National Geographic Society, Washington, D.C., July 1979.



At Santa Elena, with golfers in the background, 1981.



At Santa Elena, with Joe Joseph and Mike Hartley, 1982. (Photo by Bill Hunt)



At Santa Elena, with Charles Fairbanks, 1983.



Lecture for visitors, Santa Elena, 1992.



On receiving the Order of the Palmetto, on the 20th anniversary of the Santa Elena project, 1999. (Photo by Daryl Miller)



With Chester DePratter, delineating Charlesfort and Fort San Felipe prior to the Charlesfort discovery announcement, 1996. (USC photo)



With sons David and Robert and daughter Lara on the occasion of Stan receiving an Honorary Doctor of Humanities (HHD) degree from USC, 1997.



With Governor Jim Hodges at Charles Towne Landing, 2000.



With Michael Stoner, Jim Legg, and Chester DePratter, Ninety Six fort search, May 2005.



Callawassie Island tabby ruins testing in front yard of Bill and Shanna Sullivan, January 2006. (Photo by Michael Stoner)



Last field season, Santa Elena, Spring 2006.



In his office at SCIAA, October 2011. (Photo by James Legg)



With his dogs on his front porch, Columbia 2011. (Photo by James Legg)



At his retirement party with son, David, February 2012. (Photo by James Legg)



At the Carolina Cafe in Columbia, 2011. (Photo by James Legg)



At home in Columbia, December 2012, waving goodbye. (Photo by James Legg)

Research Division Santa Elena Update By Chester B. DePratter

This is a busy time for all things related to the Charlesfort/Santa Elena site! Part of this flurry relates to the work of the Santa Elena Foundation, which works so tirelessly to bring the site and its history more into public view.

This year marks the 450th anniversary of the founding of Santa Elena by Pedro Menendez de Aviles on Parris Island, South Carolina. To commemorate the anniversary, I worked with Heathley Johnson and Jim Legg to create a Santa Elena poster for the 25th South Carolina Archaeology Month in 2016. Details concerning this poster are available on page 31 in this issue of *Legacy*. Copies of the poster are free and may be picked up at SCIAA.

In mid-April, 2016, the Santa Elena Foundation hosted a major conference, *Santa Elena and Sixteenth-Century La Florida*, held at the USC-Beaufort Center for the Arts. Nearly 300 persons registered for this event, which generated great interest and a lot of discussion among both participants and attendees. Speakers and contributors included 16 eminent historians and archaeologists, whose research has focused on *La Florida* (Figure 1). The Santa Elena Foundation's backing and support allowed the participants to interact and exchange knowledge over the three days that they were in Beaufort. All involved thought that this was a marvelous event, and the Foundation is considering hosting similar conferences in the future. Papers presented at the conference will be compiled into an edited volume to be submitted to a university press by the end of 2016.

Only two weeks after the Santa Elena Conference, the Santa Elena Foundation held its official opening of the Santa Elena History Center at 1501 Bay St. in Beaufort. This incredible facility, the former Federal Courthouse Building, now houses the Foundation's offices, lecture room, gift shop, and major exhibit, *Santa Elena: America's Untold Story.* It was my personal honor to be selected as Curator of this exhibit and to work with the Foundation's Museum Development



Figure 1: Participants in the Santa Elena Conference (left to right): Dr. Karen Paar, Dr. David Hurst Thomas, Dr. Christopher Rodning, Dr. David Moore, Dr. Victor Thompson, Dr. Rob Beck, Dr. Kathleen Deagan, Dr. John McGrath, Dr. Eugene Lyon, Carl Halbirt, Dr. Chester DePratter, Dr. Michael Francis, Dr. Larry Rowland (front), James Spirek (rear), and Dr. Paul Hoffman. Dr. William Kelso and James Legg not present. (Photo by Sandy Dimke, Santa Elena Foundation)



Figure 2: Dr. Victor Thompson, University of Georgia, at the Charlesfort/Santa Elena site. (Photo by C. DePratter)

Committee Members, Larry Koolkin and Michael Marks. Carol Poplin and her staff with the History Workshop in Charleston designed colorful and informative panels to tell the story of Charlesfort and Santa Elena's history and archaeology. The official opening on April 30, 2016, was well attended, and all who toured the exhibit were extremely complimentary. Be sure to find time to travel to Beaufort to see this great new museum/interpretive center. Thanks to Andy Beall, Foundation Chairman, and Megan Meyer, Executive Director, for all their support and organizational skills. The Santa Elena Foundation's webpage can be accessed at www.santa-elena.org.

In early June, I worked with Dr. Victor Thompson (University of Georgia) on a Santa Elena remote sensing project (Figure 2). Victor brought a UGA field school consisting of 10 undergraduates and three graduate student supervisors to create a map of the Charlesfort/Santa Elena site using a suite of instruments, including ground penetrating radar, magnetometer, and resistivity (Figure 3). This initial work lasted for a week, and Victor and I will return to the site the last two weeks of July to complete the project. Graduate students for the June project included Jake Lulewicz, Isabelle Lulewicz, and Justin Cramb. Undergraduate field school students Bianca Garcia, Thomas Carani, Jonah Buxton, Kirby Smith, Helen Pearson, Jarrell Johnson, Thomas Pochron, Victoria Wardlow, Hayden Souder, and Michael Stenland worked tirelessly to cover as much ground as possible in their week on the site. We thank the Santa Elena Foundation and SCIAA's Archaeological Research Trust for funding this project.

Work continues on the reprocessing of the Charlesfort/Santa Elena archaeological collections. Heathley Johnson is Project Director for this work that is funded by the State of South Carolina and the U.S. Marine Corps (Figure 4). My SCIAA



Figure 4: Heathley Johnson working on Santa Elena collections. (Photo by Lalon Swaney)

colleague, Dr. Al Goodyear, recently acquired new lab space, so when he



Figure 3: Ground penetrating radar in use at Santa Elena, June 2016. Justin Cramb (left) and Bianca Garcia (right). (Photo by Sandy Dimke, Santa Elena Foundation)

moved out of the USC Jones Lab where the reprocessing project is housed, we were able to expand into his former space. The Charlesfort/Santa Elena project now occupies more than 2,000 square feet, and that space is full to the brim with collections. Work on this collections project will continue until the end of 2017. At the present time, Heathley is assisted by Lalon Swaney and Kaitlyn Ward with more lab workers to be hired soon.

This is a truly exciting time for all involved in work on Charlesfort/Santa Elena. The coming years should bring new discoveries and expand knowledge concerning the site and its history to a worldwide audience. The U. S. Marine Corps is deserving of immense credit for their stewardship of this world-class site that became a National Historic Landmark in 2001.



Return to Mississippi

By James B. Legg

In the previous issue of Legacy (Vol. 19 No. 2, December 2015), I reported on our June, 2015 work on a protohistoric site near Starkville, Mississippi.* The brief metal detecting project at 22OK778 yielded a remarkable assemblage of metal artifacts that clearly predated the establishment of regular European trade with the interior South in the second half of the 17th century. The collection included a few unaltered (or simply broken) iron and brass objects, and a number of intensely re-worked metal fragments that suggested craftsmen with little access to metal and little experience working with it. None of the objects were obviously inconsistent with a mid-16th century date. Given that we were looking for evidence of the 1540-41 encounter between the Chicasa (later the Chickasaw) and the expedition of Hernando De Soto, we were inclined to suggest that the material derived from that contact. That notion was bolstered, but not proven, when the iron objects were subjected to XRF elemental analysis, and were found to be broadly consistent with De Soto period Spanish iron.

There was too little time during our 2015 field effort to cover more than about half of 22OK778, and some of that

coverage was in less than ideal metal detecting conditions. There were several reasons to return for more thorough coverage of the site. First, we hoped to expand our assemblage of objects from the very interesting metal re-working industry at the site. Such pieces are found in small numbers in 16th and 17th century context throughout the Southeast, but 22OK778 presents an unusual density of the material among a modest scatter of upland farmsteads. Second, we hoped that we might find artifacts that would be diagnostic of either the De Soto period or something demonstrably later. Artifacts such as crossbow bolts and chain mail would strongly suggest the 1540-41 contact, while certain other English, French, or Spanish objects might indicate contact or indirect trade as late as the mid-17th century. As noted in the 2015 article in Legacy, Vol. 19, No. 2, December 2015, the era of "metal poverty" in much of the interior South persisted for more than a century after 1541, such that intensive re-working of metal scraps is hardly a solid indicator of first contact. Finally, we knew that a University of Mississippi/ Chickasaw Nation field school would begin excavations at 22OK778 in June

2016, and we hoped to be able to offer suggestions for locations that might help to address the mystery. To these ends, we returned to Mississippi for another brief season from May 16-21, 2016.

The 2016 field crew included SCIAA Director Dr. Steve Smith, SCIAA Research Division Director Dr. Chester DePratter, former SCIAA Director Dr. Charlie Cobb. now with the University of Florida, volunteer John Lieb, and myself. Chester was unable to join us in 2015, but had followed the project with interest, and in the weeks leading up to the 2016 field effort, he worked to refine the probable route of De Soto's march through the vicinity and the best prospects for the locations of his two winter camps in 1540-41. Based on his work, our site, 22OK778, appeared to be a reasonable candidate for De Soto contact. Once again, our field task consisted entirely of systematic plow zone metal detecting and GPS mapping of the pertinent artifacts recovered. We covered a 100% of 6.2 acres, and excavated a total of 36 potential "early" metal artifacts to add to the 2015 collection of 29 objects; we left the site satisfied that our coverage was more than adequate to characterize the early metal component. (This year we



Figures 1a and 1b: Dr. Steve Smith and Dr. Charlie Cobb at work at 22OK778.



Figure 2: A damaged Biscayan axe head, freshly excavated in May 2016. Biscayan axes were in widespread use in the 16th century, and they are mentioned in the accounts of the De Soto expedition, but their manufacture continued into the 19th century. Unlike most later trade axes, the sides of Biscayan axes are flat, not concave, such that they appear triangular from the top. (Photo by James Legg)

decided to collect most of the metal junk that we excavated and found that we had 518 such objects, more than half of which were ammunition specimens, including shotgun cartridge cases and .22 bullets. Our 36 "early" pieces did not come easily).

The 2016 results, unfortunately, did not answer our major questions. While the early metal assemblage was considerably expanded, we did not recover any "smoking gun" artifacts that pointed to 1540-41, nor were we able to establish that the assemblage definitely dated to a later time. We did find three fragments of a single cast brass European crotal bell that probably dates to the 17th century, which certainly does not support a De Soto origin. However, we already knew that the pottery at 22OK778 probably spans the 15th through the 17th centuries, while three radiocarbon dates from the site range from the 14th through the 17th centuries, so a single diagnostic 17th century bell is not a decisive indicator. Regardless of the particular origin of the metal objects, the re-working industry is clearly "pre-trade" (16th or 17th century), and worthy of further study. We hope that the formal excavations

in June will refine the ceramic sequence on the site, and perhaps narrow the context of the metal assemblage. Additional XRF testing might also help.

An obvious question has arisen, which may be addressed in a future trip to Mississippi—do similar protohistoric sites in the Starkville vicinity (there are many) exhibit the same re-worked metal assemblage? While there has been a fair amount of traditional excavation on such sites, and a few iron objects have been recovered, our project was the first to employ large-area systematic metal detecting. Given that several acres of block excavation would have been required to recover our 65 artifacts, it is possible that this metal component has gone unrecognized on other sites. As always, "further work is indicated."

* I reported the 2015 findings as part of a larger, regional study undertaken for the Chickasaw Nation: Cobb, Charles, et al, 2016; Beyond Yaneka: Archaeological Survey in the Protohistoric Chickasaw Settlement Region.





Figure 4: Sheet brass bangles recovered at 220K778 in May 2016. Similar examples were found in 2015. (Photo by James Legg)



Figure 3: Dr. Chester DePratter (right) in intense conversation with Dr. Brad Lieb, the Tribal Archaeologist for the Chickasaw Nation. (Photo by James Legg)

Fort Motte on Exhibit By James B. Legg and Steven D. Smith

The Fort Motte project that began in 2004 has produced several articles and conference papers, two MA theses, a senior honors thesis, numerous public presentations and tours, and a technical report (with a second in the works).* To that we can now add a museum exhibit. On April 14, 2016, our exhibit entitled " ...make no Doubt we shall carry this post... : The History and Archaeology of the Siege of Fort Motte," opened at the South Carolina Confederate Relic Room and Military Museum. Your humble authors were the "guest curators" of the exhibit, providing concept, text, and artifacts, while the always excellent exhibit museum staff provided professional elements, including graphic design, editing, printing, and installation. SCIAA GIS technician Tamara

Wilson also provided some important original graphics for the exhibit.

The exhibit begins with the historical context for the siege of Fort Motte, including the British conquest of South Carolina in 1780, and the system of fortified posts the British established in the



Figure 2: An exhibit case during installation. On the left are artifacts from the major British post at Camden, while on the right are artifacts from the Siege of Fort Watson. (Photo by James Legg)

interior. The presentation then moves on to the resurgence of the Americans in the spring of 1781 that would result in the

"...make no Doubt we shall carry this post...

The History and Archaeology of Fort Motte Exhibit Curated by James B. Legg and Sieven D. Smith

Figure 1: Mort Kunstler's 1976 painting Capture of Fort Motte is included in the exhibit, on loan from the Old Exchange Building in Charleston. The painting is also the basis for the exhibit title panel, shown here, designed by Jami Boone. While it is an accurate depiction in many respects, Kunstler's interpretation was painted long before the archaeological testing that revealed the modest dimensions of the American siege works. The massive trench depicted in the foreground is far more substantial than any works discovered thus far, and the close proximity to the fort of the meeting between Lee, Marion, and Rebecca Motte is unlikely.

capture of Fort Motte and nearly all of the other British posts. The context section includes artifacts recovered from the Camden Battlefield, where the British crushed the American southern army on August 16, 1780, as well as material from the major British post at Camden (now the Historic Camden site), and British Fort Watson, which fell to an American siege shortly before Fort Motte. All of these artifacts derived from archaeological investigations conducted

between the 1960s and the present by SCIAA and USC; most have never before been exhibited, and we conserved the Historic Camden artifacts for the Fort Motte exhibit after more than 40 years of storage in the SCIAA curation facility.

Coverage then turns to Fort Motte itself, including its placement to guard the strategically important McCord's Ferry over the Congaree, the Rebecca Motte plantation house that was fortified to become Fort Motte, and the dramatic siege undertaken by Francis Marion and "Lighthorse Harry" Henry Lee that resulted in the surrender of the fort on May 12, 1781. Here the historical and biographical narrative is augmented by an array of Fort Motte artifacts recovered by our project since 2004.

The final component of the exhibit examines the archaeological process itself, with coverage of formal excavation, systematic metal detecting, and remote sensing at Fort Motte. Regular readers of Legacy will find much of this section familiar.

The Fort Motte exhibit will run through at least February 2017.

* The two most recent Fort Motte updates in Legacy can be found in Vol. 19 No. 2, December 2015, and Vol. 18, No. 2, December 2014.

Laurens County Museum: A Window on the Piedmont Past By Russ Burns, Past Chair of the Archaeological Research Trust Board

In the spring of 2005, a group of Laurens County residents led by local collector James Gambrell banded together to form the Laurens County Museum Association. The group felt the need to create a public agency that could preserve elements of the rich history of



Figure 1: Dr. Terry Ferguson of Wofford University, examining an axe brought in by a collector. (Photo courtesy of Russ Burns)

Laurens County. Wondering whether the public would share their zeal for county history, James placed a notice in the local newspaper soliciting input at a public meeting. The result was an enthusiastic overflow crowd.

James relates those early days thus: "Mayor Sharon Brownlee opened the meeting telling what it was about, and then she introduced me to the crowd, and the rest is history. We had our second meeting at the Laurens County Library and officers were elected. Here it is 11 years later, and look how far we have come! We are getting ready to move into a



building with five times Figure 3: Mike Bramlett takes a close look with his microscope at the cleft where sinew was wrapped. (Photo courtesy of Russ Burns) the space of our original

museum."

The first museum consisted of three storefronts on Laurens Street, which the association purchased from Woodmen of the World Lodge No. 96 in September 2006. The members of the Woodmen Lodge were extremely gracious in their collaboration with the museum in making the acquisition of the property an affordable undertaking. The building required some renovations. Board Secretary, Jane Corn, obtained a grant for \$125,000, which was used for these upgrades. Other individuals and organizations gave of their time and

Figure 2: Old friends crowd around Tommy Charles to share news of findings. (Photo courtesy of Russ Burns)

expertise for the remodeling at reduced or no costs. It was truly a community effort!

Immediately, contributed items of historical and prehistoric value began pouring in. Soon, the new museum was literally overflowing with material. With such rich resources to draw from, the museum staff put together elaborate displays spanning time from prehistory to the 20th century. It was not long before the Laurens County Museum was voted "Best of the Upstate" by readers of the *Greenville News*.

Knowing that a successful museum must be more than a repository for materials representative of the past, the Laurens County Museum began a series of public outreach programs, one of which brings archaeology into the spotlight each year. Local collectors of Native American artifacts have been particularly vocal in their support of the museum and clamoring for expertise in identifying materials.

Tommy Charles, now retired from SCIAA, along with other archaeologists, both professional and avocational, began an annual trek to Laurens a number of years ago to participate in the Museumsponsored Native American Artifacts Identification Day. The response from collectors from all over the Upstate has been overwhelming. Many unique pieces have come to light through this outreach program, and many individuals in search



Figure 4: Longtime supporter of archaeology, Tony Harper, greeting Tommy Charles. (Photo courtesy of Russ Burns)

of a permanent home for their collections have donated them to the Laurens County Museum.

Knowing of this growing interest by the Laurens County Museum in becoming a center for Native American materials, Greenville businessman, Tony Harper, a long-time member and Past Chair of SCIAA's Archaeological Research Trust Board, connected the Laurens County Museum with North Carolina native Dr. Robert Crawford. Dr. Crawford has spent a lifetime collecting Native American artifacts from his farm on the banks of the Yadkin River. These artifacts were located just across the river from the site used by North Carolina archaeologist, Dr. Joffre Coe, in his landmark study of projectile points in association with various time periods. Coe's work is generally recognized as the "Rosetta Stone" of Southeastern Archaeology. The Crawford Collection is a perfect reflection of this work since the ancient trade routes connected both sides of the river in a shallow ford at this point.

After extensive negotiations, which centered on never breaking up the collection, the Laurens County Museum obtained the 380 sets of labeled artifacts worth in excess of \$300,000. The Crawford Collection is scheduled to become a centerpiece in the *Hall of Early Humans*, set to open in a little over a year from now.

This display hall will be in the new museum building located on the south



Figure 5: Vice-President Terry Burdette (left) and President Robbie Bell (right), welcome the group to the luncheon honoring Tommy Charles. (Photo courtesy of Russ Burns)

side of the Public Square in Laurens. The museum association acquired this large facility through a strange bit of serendipity. Texas businessman, John Witherspoon, had spent his childhood in Laurens, and while perusing the Internet one day, came across the web site of the Laurens County Museum. Witherspoon contacted the museum, offering to donate an heirloom bedroom suite that had been in his family for well over a century. When told that the museum would be happy to receive his bedroom suite but could not display it right away because display space was so limited in the small museum, Witherspoon proceeded to purchase a halfblock of storefronts on the public square and donate this along with substantial renovation funds to the Laurens County Museum. The museum was now set up for a new home with more than five times the square footage of the old building.



Figure 6: Laurens County Museum Association member, Debbie Vaughn, who coordinated the Native American Artifacts Day and luncheon for Tommy. (Photo courtesy of Russ Burns)

External renovations have been completed and some interior work done on the building, including restrooms, a small theater, and office space. The second floor of the building is slated for largescale meeting/special events space, and general displays. The main floor will house the panorama of time sequence of displays, many of which will change regularly. The basement level will store the accessioned materials, a lab for studying artifacts, a workshop, and a secure vault for items of great value. To meet these needs in a timely fashion, the Museum Association has begun both a capital campaign and a membership expansion effort.



Figure 7: Tommy Charles is all smiles at the luncheon as speakers Terry Ferguson and Nena Rice recount Tommy's many contributions to archaeology in South Carolina. (Photo courtesy of Russ Burns)



Figure 8: The Laurens County Museum in their new space on the south side of the Public Square in Laurens, SC. (Photo by Nena Powell Rice)

Meanwhile, the growing interest within the museum to make this place a center for the collection and study of Native American materials led archaeologist, Tommy Charles, a longtime supporter of the museum, to donate his personal collection of artifacts. This collection, which rivals and perhaps exceeds the Crawford Collection in size and value, will become a dynamic counterpoint in the projected Hall of Early Humans. The acquisition of these collections has seemingly opened the floodgates, as more area collectors are arranging to donate their artifacts to the museum as well.

On June 11, 2016, at the conclusion of the annual artifacts identification program, the Laurens County Museum held a small drop-in to honor Tommy Charles for his generosity in choosing the museum to house his private collection, for his many years of identifying artifacts and participating in local programs, and for his many contributions to archaeology in the state of South Carolina. The Laurens County Museum looks forward to continuing to work with Tommy as we begin building the displays that will illustrate the early human occupation of the Piedmont of South Carolina.

As the Laurens County Museum transitions into its new home over the next several years, there is growing excitement in the community. The future for the museum looks bright.



Figure 9: Judy and Russ Burns at the Native American Artifact Identification Day in June 2016. (Photo by Nena Powell Rice)



Figure 10: The Witherspoon Bedroom Suite that led to the new home for the Laurens County Museum. (Photo courtesy of Russ Burns)



Figure 11: Dr. Terry Ferguson, Tony Harper, Tommy Charles, and Robbie Bell at the Native American Artifact Identification Day in June 2016. (Photo by Nena Powell Rice)

Savannah River Archaeology Research

Archaeological Predictive Modeling along the Central Savannah River By J. Christopher Gillam

Archaeological predictive modeling at the Department of Energy's Savannah River Site (DOE-SRS) has paralleled efforts elsewhere in the Southeast. First published in 1989, the previous archaeological predictive model was developed by the Savannah River Archaeological Research Program (SRARP) to aid cultural resource management of prehistoric sites on the SRS (SRARP 1989). Generated prior to the availability of a Geographic Information System (GIS), the model was understandably based upon only three environmental variables and univariate statistics. Similar to other predictive models, it provided three zones of relative archaeological sensitivity, including low, moderate, and high probability areas,



Figure 1: The 1989 Sensitivity Zone Model for the SRS. (Map by J. Christopher Gillam)

plus an indeterminate zone representing wetland areas typically avoided by landuse planners on the SRS (and therefore not archaeologically tested on a regular basis. (Figure 1).

Since its development, the extant 1989 model has served as a guide for fieldwork enabling archaeologists to focus testing and minimize the cost of archaeological surveys. Ongoing research suggested that the 1989 model was significant, but in need of further evaluation (Gillam 2005:21-23). Analysis of a subsequent, independent model validation sample (n=89 prehistoric sites) demonstrated that a revised model is warranted, resulting in the development of a new multivariate logistic regression model of prehistoric site location on the SRS (Gillam 2015: In Press).

Following a knowledge-based approach for the current study, seven environmental variables were selected for model production based on existing knowledge of significant elements of the prehistoric cultural landscape. This method is preferred to other approaches, such as stepwise or best subset variable selection, due to archaeology's focus on selective, agent-based human systems, processes and decisions that are not necessarily dependent on environment. That is, an expedient "shotgun" approach might yield a statistically valid model that does not correlate meaningfully to cultural decisions and activities that the resulting model attempts to represent. The anthropologically-relevant variables chosen for analysis include: elevation, relative elevation to streams, local elevation range, caloric cost-distance to wetlands/streams/bays, percent slope, and landform plan- and profile-curvature (land curvature parallel and perpendicular to slope direction, respectively). The

#	Estimate	Parameter
0	0.499	Intercept
1	-0.013	Elevation (dem_ned30)
2	0.014	Elev. Range (elev_rng900)
3	-0.005	Water Cost-Distance (fbs_c4)
4	6.853	Plan Curvature (plan_ned30)
5	-2.238	Profile Curvature (prof_ned30)
6	-0.009	Rel. Elev. Stream (rel_strm3k)
7	0.064	Percent Slope (slp_ned30p)

Table 1: Coefficient estimates for the binary logit model (n=199 prehistoric sites; n=200 random, non-sites). (Table constructed by J. Christopher Gillam)

prehistoric resources, so previously recorded Carolina Bay sites were used to determine an appropriate buffer for bay rims. A histogram of distance to Carolina Bays indicated typical land-use peaked within 70-m of wetland edges; these areas were then added to the high probability zones resulting in the final predictive model (Figure 2).

To test the model, two samples were used to statistically evaluate the probability zones. The first is the same validation sample used to evaluate the prior model. This sample includes 89 prehistoric sites recorded during independent, intensive archaeological surveys that were specifically excluded

values were extracted in ArcGIS (ESRI 2016), exported to tabular format, and analyzed statistically in SAS (SAS 2016) to derive binary, multivariate logistic regression (binary logit) coefficient estimates for model generation (Table 1). The preliminary binary logit model was subsequently generated in the GIS using the equation, grid layers, and associated coefficient estimates below:

preh_mod15 = 1 div(1 + (exp(-(0.499 + (-0.013 * dem_ned30) + (0.014 * elev_ rng900) + (-0.005 * fbs_c4) + (6.853 * plan_ ned30) + (-2.238 * prof_ned30) + (-0.009 * rel_strm3k) + (0.064 * slp_ned30p)))))

The resulting raster grid layer, containing values from 0.0 to 1.0 probability, was then reclassified to create zones for high probability areas at 0.5 to 1.0 probability, moderate probability at 0.5 to 0.37 (0.5 minus 0.13; 1-standard deviation), and low probability at 0.37 to 0.0 probability. There were also subtractive and additive landscape elements used to produce the final prehistoric predictive model. Wetland areas that are typically inaccessible set-asides at the SRS were reclassified as indeterminate probability areas (though there is likely a high probability of wet and deeply buried sites in floodplains). Carolina Bays were under-represented in the archaeological sample and are known to be significant



Figure 2: Revised Prehistoric Multivariate Predictive Model for the SRS. (Map by J. Christopher Gillam)

	%	Expected	Observed	(O-E) ²			
Zone	Area	Sites	Sites	/ E	df	Significant	%Sites
0	9	8	6	0.500	1	no	7
1	34	30	46	8.533	1	more	51
2	33	30	23	1.633	1	no	26
3	24	21	14	2.333	1	no	16
Total	100	89	89	13.0	3	Yes	100

where $X^2 \ge 3.84$ at 0.05 probability and 1 degree of freedom and

where $X^2 \ge 7.82$ at 0.05 probability and 3 degrees of freedom.

Table 2: 2015 Model tested with Independent Intensive Prehistoric Site Sample (n=89). (Table constructed by J. Christopher Gillam)

from the new model's development for validation purposes. The overall model was significant at much greater than the 0.05 probability level, as was the observed frequency of sites in the highest probability areas of Zone 1 (Table 2). High probability areas, Zone 1, contain some 51-percent of sites (n=46) in only 34-percent of the surveyed area. Although fewer sites were observed than expected by chance alone for the lower probability areas (Zones 0, 2, and 3), these were not significantly low frequencies. This likely reflects limitations of the relatively small validation sample size, as the expected- and observed subsample sizes for each zone ranged from only 8 to 30 expected sites. To illustrate this point, a second validation sample (n=1078) from the likewise excluded, non-intensive surveys was analyzed.

The much larger prehistoric sample of independent, non-intensive survey sites (n=1078) demonstrates that the model is much more significant, and therefore effective, than indicated by the small, intensive validation sample alone. Indeed, it indicates a pattern of significance that is nearly ideal. That is, there are significantly more sites observed than expected by chance alone for the highest probability areas (Zone 1), and significantly fewer sites than expected for all other, lower probability, areas (Zones 0, 2, and 3; Table 3). Indeed, Zone 1 high probability areas contain some 56-percent of sites (n=606) in only 28-percent of the SRS area.

Distribution maps of prehistoric sites along Upper Three Runs Creek illustrate the increased effectiveness of the multivariate predictive model. The 1989 model displays a weak correlation between sites and its corresponding probability zones (Figure 3). In contrast, the probability zones of the new multivariate predictive model demonstrate a high correlation with prehistoric site distributions (Figure 4). That is, most of the documented sites fall within the highest probability zone of the model, Zone 1.

Despite its apparent strengths, the SRARP will continue to regularly collect intensive, independent data during the normal compliance activities at SRS. This will enable future refinements to the model, further model testing and validation, and allow for new methodologies to improve our understanding of the Central Savannah River Area's prehistoric cultural landscape. Likewise, the methodologies developed

Zone	% Area	Expected Sites	Observed Sites	(O-E) ^{2/} E	df	Significant	% Sites
0	19	205	85	70.095	1	fewer	8
1	28	302	606	306.498	1	more	56
2	27	291	245	7.289	1	fewer	23
3	25	270	142	60.320	1	fewer	13
Total	100	1078	1078	444.202	3	Yes	100

where $X^2 \ge 3.84$ at 0.05 probability and 1 degree of freedom and

where $X^2 \ge 7.82$ at 0.05 probability and 3 degrees of freedom.

Table 3: 2015 Model tested with Independent Non-Intensive Prehistoric Site Sample (n=1078). (Table constructed by J. Christopher Gillam)



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SAS (SAS Institute, Inc.) 2016 SAS (version 9.4). Windows. Cary, NC: SAS.

SRARP (Savannah River Archaeological Research Program)

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Figure 3. Recorded prehistoric sites demonstrate the limitations of the 1989 Prehistoric Sensitivity. (Model by the SRS)

on the SRS may be employed in other locations of the Southeast, and elsewhere, to enable more cost-effective cultural resource management and archaeological research.

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Figure 4. Recorded prehistoric sites demonstrate the effectiveness of the 2015 Prehistoric Multivariate Predictive Model of the SRS. (Map by J. Christopher Gillam)

Naritime Research Serendipity and IX-Inch Dahlgren Smoothbore Cannon "FP 513"

By James D. Spirek

The recent recovery of the three cannons jettisoned by the CSS Pee Dee into the Great Pee Dee River during the waning days of the Civil War had various meanings to the many folks attending the event. To Catesby Rogers, the great grandson of Catesby ap Roger Jones in charge of the Selma Ordnance and Naval Foundry located in Selma, Alabama, the facility that forged the two Brooke rifles that meant seeing the handiwork of his ancestor. To Ted Gragg, Bob Butler, and many others involved over the years in discovering, recording, preparing, and lifting the guns, that meant witnessing the fruits of their labors finally visible on the riverbank. To the spectators, that meant marveling at the three tubes extraordinary condition after 150 years in the river. To the author, that meant a serendipitous turn of professional and personal connections concerning the recovery of one of the three cannons-IX-inch Dahlgren smoothbore "FP 513" (Figure 1).

Like many beginning graduate students, I found myself in search of a thesis topic. Studying at East Carolina University's Program in Maritime History and Nautical Archaeology (now known as the



Figure 2: Sonogram image of the remains of *Southfield* on the bottom of the Roanoke River. The aft end of the gunboat is to the left of the image with forward end, demolished during river navigation projects in the late 1800s, to the right. (Courtesy North Carolina Underwater Archaeology Branch)

Program in Maritime Studies), that meant looking for a suitable project, typically on a shipwreck. In early 1990, a private underwater archaeological contracting firm discovered the remains of the USS *Southfield*, a gunboat rammed and sunk by the ironclad CSS *Albemarle*, in the Roanoke River just downstream from Plymouth, North Carolina (Figure 2). I was approached by my professors and the North Carolina Underwater Archaeology Branch, the state managers of submerged archaeological sites in the state, about my interest in studying the



Figure 1: Recovering IX-inch Dahlgren smoothbore from the Great Pee Dee River with author in middle ground. (SCIAA image)

remains of the Union gunboat. I jumped at the opportunity, as the remains of the gunboat met many of my requirements for a thesis topic-a shipwreck, underwater, near-by, and plenty of related historical documents. Both organizations also pledged to support the archaeological investigations at the shipwreck. Equally important was the enthusiasm shown by the town and private citizens of Plymouth to contribute to this endeavor with material support that included outfitting a vacant house for our use during the field school, a pig-pickin', boat slips, and other resources. The sunken gunboat was a perfect shipwreck from the perspective of a budding underwater archaeologist with an interesting history before, during, and after the war and an archaeological site with many extant features reflecting its role as a gunboat supporting army and navy combat operations in the waters of North Carolina and Virginia.

Originally, the USS *Southfield* was a Staten Island ferry boat built in 1857 operating between there and Manhattan in New York Harbor until purchased by the navy in late 1861 (Figure 3). Hastily outfitted for a sea voyage south, the ex-ferryboat arrived at Fortress Monroe, Virginia, for conversion into a gunboat for the upcom-



Figure 3: The Staten Island and New York City ferryboat *Southfield* circa 1857-1861. (Courtesy of New York Public Library)

ing Burnsides expedition to attack the sounds of North Carolina. Workmen toiled incessantly to convert the ferryboat that once carried passengers and wagons into a gunboat capable of carrying four large naval guns and a complement of officers and crew. A major modification included building up the curbs that once guided wagons on and off the ferryboat into wooden breastworks to fasten the cannon breechings for a 100-pdr Parrott rifle and three IX-inch Dahlgren smoothbores (Figure 4).

Transformed into a gunboat, *Southfield* joined the expedition off Hatteras Inlet, NC and with the other navy warships and army transport vessels crossed with difficulty over the shallow bar. During the Battle of Roanoke Island, *Southfield* acted as the flagship and softened Confederate batteries in support of the army's amphibious attack. Following the reduction of the island, the gunboat participated in the subsequent capture of other port cities in the Albemarle and Pamlico Sounds. Under the relatively firm control of Union forces, this theater of the war settled into routine naval patrols.

Bored with the inaction, *Southfield's* captain requested a transfer to a more active theater. Soon afterwards the gunboat received orders to proceed to Virginia to join the naval and land forces assembling to participate in the 1862 Peninsula Campaign under the command of General George McClellan. Here the gunboat operated alongside the USS *Monitor* and other vessels of the James River Flotilla protecting the left flank of the land forces pressing towards Richmond. As the Union cam-



Figure 4: IX-inch Dahlgren smoothbore battery aboard the ex-ferryboat USS *Commodore Perry*. This arrangement is similar to *Southfield's*, except that it did not have sniper shields on the breechworks. (Courtesy of National Archives)

paign headed fitfully to the Confederate capital, the gunboat bombarded batteries, participated in feints, and protected supply vessels. Strengthening Southern resolve and Northern indecision caused the offensive movement to sputter, eventually leading to the withdrawal of the land forces on the peninsula, which was covered by the naval flotilla. Following the failed campaign, *Southfield* returned to Norfolk for much-needed hull and machinery repairs and to receive a strengthened battery.

During the gunboat's absence from North Carolina, the situation had changed from relatively firm control to Confederate land forces threatening several Union strongholds. The Union naval commander in the sounds of North Carolina urgently requested additional assets, specifically requesting Southfield, due to the gunboat's shallow draft and increased firepower. The gunboat's battery consisted of two new IX-inch smoothbore Dahlgren's to increase the total to five IX-inches and a 100-pdr Parrott rifle gun, along with a 12-pdr boat howitzer—a formidable battery. Repairs to the gunboat in Norfolk were drawn out caused by logistical delays, but finally departed Virginia headed to the sounds in early December. The gunboat arrived on the Roanoke River to take up station at Plymouth on 7 December 1862; three days later the Confederates attacked in force.

On the morning of 10 December, taking advantage of the solitary gunboat, a Confederate force composed of infantry, cavalry, and artillery launched an attack against Union-controlled Plymouth. The captain of the gunboat ordered a cautious return fire due to their unfamiliarity with the city layout and fear for firing upon friendly forces. During the fight, the gunboat received a number of hits that included a shot bursting the steam drum, which disabled the gunboat. The captain ordered the anchor slipped and the crippled gunboat was swept downstream by the current and away from the beleaguered Union forces. Another ex-ferryboat turned gunboat, USS Commodore Perry, on picket duty at the mouth of the river, immediately headed upstream at the sound of cannon fire to support the Union forces. Finding the



Figure 5: Naval engagement between Confederate ram *Albemarle* and Union gunboats *Miami* and Southfield on 19 April 1864. (*Harper's Weekly*)

helpless gunboat drifting downriver, the captain of *Commodore Perry*, tossed a hawser to *Southfield*, and headed to Plymouth with the gunboat in tow. When the two reached the town, the Confederate forces had withdrawn from the attack.

The senior commander in the sounds felt Southfield's captain displayed a lack of gallantry during the firefight and called for his removal from command. Subsequently, the commodore of the North Atlantic Blockading Squadron ordered a report of the conduct aboard Southfield during the attack. The gunboat's commander provided a detailed response to several questions that included the number and types of projectiles fired by each gun, with their serial numbers, during the engagement. He noted, however, that the crew of gun No. 4, an IX-inch, had not been able to get their gun to bear on the town, and subsequently did not provide the serial number for that cannon. Apparently the commodore received the response favorably as the captain retained his command of the gunboat until he departed due to ill health in the fall of 1863.

From the attack on Plymouth in late 1862 to early 1864, the gunboat participated in routine patrols in the sounds and adjacent rivers and provided fire support at hot spots. One such spot occurred at Washington on the Pamlico River in March 1863 where the gunboat assisted in breaking the Confederate siege of that Union-occupied town. A Confederate assault on New Bern in January 1864 prompted a timely response by Southfield and other gunboats to protect the town. In early 1864, intelligence reports confirmed the building of an ironclad further up the Roanoke River. At Scotland Neck, just above the river town of Hamilton, the Confederates were building a casemated ram called the CSS Albemarle intending to break-through the naval defenders at Plymouth and then to engage other Union naval forces in the sounds. The Union fear of iron warships meeting wooden gunboats was now looming.

In an effort to thwart the impending attack, Union naval forces sank several hulks upstream from Plymouth and strategized on the best way to engage the ram with the gunboats. The captain of the USS *Miami* decided to lash his gunboat to *Southfield* and attempt to engage and to catch the ram in a cross-fire between the two gunboats; a fateful plan for *Southfield* and the captain. On the night of 18 April 1864, the long anticipated Confederate attack began with land forces assaulting the town, while the ironclad ram descended the river directly at the two gunboats in the early morning hours of the 19th (Figure 5). The ram smashed 30-feet into the starboard side of Southfield. Temporarily embedded in the gunboat, Albemarle offered a point-blank target to the gun crews of Miami. The gunboat's captain assisting alongside the guns directed a cannon at the casemate of the ram and fired. Shell fragments rebounded from the iron flanks back towards the Union gunboat and struck the captain in the head, killing him instantly. The impaled Southfield began to fill with water and started to sink, threatening to drag the ram down with it. Crew from Miami cut the lashings binding the two gunboats together, while crew from Southfield clambered aboard the gunboat before the two separated, including the captain, while others jumped in the river. At some point, the ram broke free of its victim and started to direct attention at Miami. The Union gunboat backed down the river and eluded the ram. The next day, enfiladed by the ram and another steamer, Union forces surrendered Plymouth to the Confederates. The sunken Southfield and its battery lay on the bottom just downriver from the town.

After the successful defeat of Union forces, the Confederates worked to recover the battery of the Union gunboat and completed the operations by the end of May. Three of the Dahlgren's stayed in Plymouth, and eventually were recaptured spiked by the Union navy, but two others were apparently sent elsewhere. As we now know, one of the IX-inch Dahlgren smoothbores was sent upriver to Weldon and then shipped via the Wilmington, Weldon, and Manchester Rail Line to the Mars Bluff Navy Yard arriving there sometime between September and October 1864. The smoothbore was placed aboard the CSS Pee Dee, which required modifications to the bulwarks to accommodate the captured Union gun amidships on a pivot carriage. Completed in early January 1865, the gunboat's sole naval mission occurred in early March when sent upriver to cover withdrawing

Confederate forces from Cheraw under pressure from advancing Union troops. Without firing a shot, the gunboat returned downstream to the navy yard where the crew received orders to jettison the cannons and to scuttle the gunboat.

For many years, the whereabouts of the three cannons remained shrouded in mystery-did they go down with the ship or thrown overboard elsewhere? It was not until 1995 that the first cannon was found along the waterfront of the navy yard. Interestingly, that cannon was the IX-inch Dahlgren. When Dr. Lawrence Babits, now-retired director of the Program in Maritime Studies at ECU, posited three Union shipwreck candidates, from whom the gun came from-two from out West and the USS Southfield, I was determined to learn if indeed this was from the gunboat I had spent many hours researching and diving on years ago as a graduate student. I reviewed my thesis and notes, especially the detailed report of the 10 December 1862 attack on Plymouth, that listed the guns and their serial numbers, save one, No. 4. But, I did not find any mention of gun "FP 513." As mentioned in previous articles, during a research trip to the National Archives in Washington, DC, we examined archival resources to identify the cannon. Two sources, the "Register of IX-inch Dahlgren's" and a collection of ordnance returns, provided the confirmation that the Confederate gunboat was indeed armed with a recovered Southfield cannon (Figure 6).

The markings on the gun "FP 513," especially the abbreviation "JMB" on the trunnion provided clues as to when the cannon was deployed aboard the Union gunboat (Figure 7). Southfield was originally armed with a 100-pdr Parrot and three IX-inch Dahlgren smoothbores in early January 1862. The abbreviation "FP" denoted the cannon was cast at the Fort Pitt Foundry outside Pittsburg, PA, while the abbreviation "JMB" meant the gun had been inspected by the assistant ordnance inspector, Captain John M. Berrien, who had assumed that role in the spring of 1862. This provided an approximate casting date occurring after Berrien's

arrival at the foundry, which confirmed that the gun was not part of the original complement of the gunboat. The new cannon must have come aboard during the refit in Norfolk in late 1862.

The register stated that by 2 December 1863, the cannon had been fired 66 times. As mentioned above during the Confederate attack on 10 December 1862, a few days after the gunboat returned to the sounds from Virginia, the captain listed all the guns deployed during the battle. All the guns were accounted for with serial numbers save one, No. 4, as it was unable to enter "the ball." That apparently was gun "FP 513," as all the other guns in the captain's report match the ordnance returns listing the other cannons aboard the gunboat. This also suggests the location of the cannon aboard Southfield. The forward battery, or "fighting end," consisted of the 100-pdr Parrott and two IX-inch Dahlgrens, while the aft battery comprised the remaining IX-inchers. The gunboat no doubt was anchored with its fighting end towards the town, and as the attack unfolded the forward battery had a clear line of fire, whereas the aft battery would have been hampered by the main cabin blocking that sections line of fire. I believe that "FP 513" was located in the aft battery on the starboard side of the gunboat, which obstructed by the main cabin, prevented its deployment during the firefight. The next opportunity to fire

the gun did not occur until at least March 1863, when the gunboat and others fired at Confederate forces in the vicinity of Plymouth. Other occasions for firing the gun occurred during the siege of Washington, rescuing another gunboat pinned down by a battery, the siege of New Bern, and of course, during the climactic battle with the CSS *Albemarle* on 19 April 1864.

As for its firing history as part of the armament of the CSS Pee Dee that would have been limited to several reported test firings of the guns into the adjacent swamp across from the navy yard. As mentioned above, the gunboat did not fire upon the town of Cheraw, while covering Confederate forces crossing over the river. Another factor that perhaps restrained firing the smoothbore was a lack of ammunition, although the navy yard commander did mention receiving shells for the IX-inch. Archaeological investigations in the river along the waterfront of the navy yard recovered numerous VI.4 and VII-inch Brooke rifle shells, but did not recover one single shot, shell, or grapeshot for the IX-inch. It is possible those projectiles remained aboard the scuttled gunboat, but during previous salvage operations, none were noted as having been recovered. Perhaps future work in the river may uncover some Confederate or Union examples from this gun.

NAME OF VESSEL. · Southfield CLASS OF GUN. REGISTER NO. WRIGHT FOUNDRY. YEAR. PROVER. PIVOT OR BROADSIDE 100 le Paros hits nº 1 Is inch , PPA as date CARCS 12.11.12 9137. .511 9193. F.F. . 343 9271. PPP Tulo Camina 8

Figure 6: Ordnance document from April 1863 confirming the gun aboard the USS *Southfield*. Gun 513 particulars underlined in red. (SCIAA image)



Figure 7: Engraved brass insert with serial number inside hammerlock clevis. (SCIAA image)

What makes the cannons of the CSS Pee Dee interesting and significant is that they have a history attached to them. The pedigrees of the two Brooke rifles are fairly complete, even down to the amount of iron used in pouring the mold and their shipment from Selma, Alabama to the Mars Bluff Navy Yard. The identity of the Dahlgren, however, remained problematic to a degree; but a little historical research provided an identity to this archaeological object. In the near future and for many years to come, visitors to the outdoor display in Florence will see three large naval cannons on their pedestals and learn the histories attached to these guns. This will provide a more meaningful educational experience of the efforts to arm this Confederate gunboat, built in an out-of-the-way location many miles upriver from the ocean, in an effort to contest Union naval supremacy during the Civil War. To the long-ago graduate student and now professional, that means a lot for others to learn from our efforts to solve historical and archaeological mysteries that have local and national interest and import (Figure 8).



Figure 8: Author with the recovered CSS $\it Pee \ Dee, \ ex-Southfield, \ IX-inch \ Dahlgren \ smoothbore. (SCIAA image)$

Special Events Celebrating the 25th Annual South Carolina Archaeology Month

By Nena Powell Rice

The archaeological community in South Carolina celebrates its 25th Annual South Carolina Archaeology Month in 2016 and will offer numerous programs across the state. The series of events will offer a wide range of cultural programs that span the rich, cultural heritage of South Carolina covering the early Paleoindian time periods, as well as the Archaic, Woodland, Mississippian, Colonial, American Revolution, Civil War, and underwater topics. The staff at the South Carolina Institute of Archaeology and Anthropology (SCIAA) at the University of South Carolina joins with professional and avocational members and organizations in South Carolina to coordinate and promote cultural programing and offers tours, public excavations, and lectures in October every year, as well as provide a calendar of programs and events throughout the fall of 2016.

Each year, the archaeological community focuses on a theme to educate the public on different topics of archaeological inquiry. This year we will celebrate the 450th Anniversary of Santa Elena: America's Untold Story of the Spanish town located on the tip of Parris Island near Beaufort, South Carolina. This year, Heathley Johnson, James Legg, and Dr. Chester DePratter produced a colorful poster of the history of Santa Elena. Please come by 1321 Pendleton Street, Columbia, SC 29208 to pick up free posters. To view and download the poster, front and back, please visit: http://www.artsandsciences. sc.edu/sciaa, under SC Archaeology Month, or visit scholarcommons.sc.edu, to view all the Archaeology Month posters during the past 25 years. For any further information, please contact Nena Powell Rice, SC Archaeology Month Statewide Coordinator at (803) 576-6573 Office or email me at nrice@sc.edu.



The front of the 25th Annual South Carolina Archaeology Month poster in 2016. (Poster design by Heathley Johnson; text on back by Heathley Johnson, James Legg, and Dr. Chester DePratter)

Archaeological Research Trust (ART) Celebrating the Archaeological Research Trust's 25th Anniversary By Chester DePratter

This year marks the 25th Anniversary of the founding of the Archaeological Research Trust (ART)in 1991. From the beginning, ART's outreach and support of research projects were seen as an important component of SCIAA's mission. Now, after 25 years of dedicated effort by its board members and SCIAA archaeologists, ART has proven to be a great success.

The idea for ART originated with SCIAA's former Director, Dr. Bruce Rippeteau. He appointed former SCIAA staff members Tommy Charles, Albert Goodyear, and Mark Newell to serve with him on the organizing committee. They were joined by two interested private citizens, Roland Young of Columbia and Miller Ingram of Cheraw. This committee, working with Harriette Wunder of the USC Educational Foundation, established ART on November 14, 1991. The first ART Board included the six members of the organizing committee, plus Tony Harper of Greenville and Shipp Harris of Columbia. Roland Young was elected the



Figure 2: Members and guests of the ART Board joined in the celebration of the opening of the new Santa Elena History Center in Beaufort on April 30, 2016. (Photo courtesy of Nena Powell Rice)

first Chairman. Eight corporations and 125 individuals became charter members of the Trust. Since 1991, a total of 17 SCIAA staff and 55 others have served as ART Board Members.

For 25 years, SCIAA research and outreach activities have been publicized in two ART-supported newsletters. *PastWatch*, published 1992-1995, and *Legacy*, its successor, have been mailed out to interested persons throughout South Carolina and across the country. Currently, *Legacy* is mailed to 2,500 individuals interested in SCIAA and its research activities, and it is also posted on the web where it is read by countless others.

From the very beginning, ART began raising funds to support research by SCIAA archaeologists. Al Goodyear and Nena Rice were in charge of the initial effort to raise funds for ART, and in the first year they brought in more than \$28,000. Over the past 25 years, board members and others have contributed more than \$528,000 to ART. Accumulated interest on these funds has supported 70 research projects totaling \$225,000. In the first 15 years, ART grants averaged about \$1,600. Increased donations to the endowment have raised the grant average to \$4,700 over the past eight years.

In this, ART's 25th year, the ART Board has committed to raising even more funds to support SCIAA research. At its most recent meeting in Beaufort in April 2016, the ART Board committed to raising an additional \$225,000 for the endowment in 2016 and 2017. This would raise the



Figure 1: Dr. Chester DePratter leading an ART Board Member and Guest Tour of Camp Asylum excavations in February 2014. (left to right), Dr. Chester DePratter, Former SCIAA Director Charlie Cobb, Bob Mimms, Walter Wilkinson, Roman Kyweluk, and former Dean Mary Anne Fitzpatrick, Vinnie Suarez, William Mimms, and SCIAA Director Steve Smith. (Photo by Nena Powell Rice)



Figure 3: ART Board members gathered for dinner at Plums in Beaufort after the Super ART Board meeting celebrating the opening of the Santa Elena History Center. (Left side of table): Chair Bill Bridges, Lezlie Barker, Chester DePratter, Page Mimms, Bob Mimms; (right side of table) Vice-Chair George Bell, Sam McCuen, Chris DePratter, Jo Baker, and Dale Bales. (In the far back, not shown, Pat Smith, Steve Smith, Bill Sullivan, Shanna Sullivan, and James Borton). (Photo by Nena Powell Rice)

endowment to \$750,000, which would provide nearly \$34,000 a year in research funds to SCIAA archaeologists. Raising this amount of money will require a tremendous effort by the present Super ART Board Members and SCIAA staff, but all in attendance at the Beaufort meeting agreed that the 25th anniversary year should be the impetus for this major push.

Please consider contributing to the ART Endowment to help us reach our goal. Use the envelope inserted in this issue of *Legacy*, or mail your check to ART Endowment, ATTN: Nena Powell Rice, SCIAA, 1321 Pendleton Street, Columbia SC 29208.



Figure 4: Front page of first issue of PastWarch, December 1992. (Edited by Nena Powell Rice)

ART / SCIAA Donors Update January 2015-June 2016 The staff of the Institute wishes to thank our donors who have graciously supported the research

The staff of the Institute wishes to thank our donors who have graciously supported the research and programs listed below.

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We wish to thank the Carolina Central Community Foundation for giving us the opportunity to participate in the Midlands Gives Campaign on May 3-4, 2016. And THANK YOU to all of you who sent in a donation to support our research!!

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Director of Research at SCIAA and new ART Board Member, Dr. Chester DePratter, addresses the crowd at the opening of the new Santa Elena History Center, where the Super ART Board meeting took place on April 29-30, 2016. (Photo by Nena Powell Rice)

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R. L. Stephenson Lifetime Achievement Award Presented to Albert C. Goodyear, III By the Board of the Archaeological Society of South Carolina February 20, 2016

Dr. Albert C. Goodyear, III, received his B.A. from the University of South Florida, M.A. from the University of Arkansas, and Ph.D. from Arizona State University (1976). He has served as a senior research archaeologist and professor at the SC Institute of Archaeology and Anthropology since 1974. His research interests include Paleoindian and other early prehistoric time periods, the Pleistocene-Holocene transition, lithic technology, and geoarchaeology, with a special focus on soil science applications. Dr. Goodyear is the Director of the Allendale Paleoindian Expedition, a long-term excavation project in western Allendale County South Carolina, focusing on chert quarry utilization during the early Holocene. For almost 30 years, the Expedition was a public archaeology program where interested members of the public registered to help excavate.

Dr. Goodyear is the founder and director of the Allendale PaleoIndian Expedition, now known as the Southeastern Paleoamerican Survey where he has unearthed controversial evidence that may greatly move back the date of occupation of North American humans to 50,000 years or more before the present. His area of expertise includes the Clovis culture, which dates back about 13,000 years in North America.

Goodyear has authored over 100 articles and other publications and is a frequent lecturer on Paleo-Indian archaeology.



Figure 1: Al Goodyear. (USC photo by Keith McGraw)

All of us in South Carolina and the University of South Carolina are proud to join in the congratulations to Al Goodyear for receiving the *Breakthrough Leadership in Research Award* in 2013. This was the inaugural year of this award through the university's Office of Research, so it is particularly gratifying to have one of our own recognized as one of the first recipients. Although Al has a lengthy and diverse record of research, his *Breakthrough Leadership in Research Award* was made with specific recognition of his contributions to scholarly and public outreach via his long-term research at major Paleoindian sites in Allendale County, SC, that date to at least 13,000 B.P.

Since 1996, Al has had over 1,000 members of the public join in his excavations at the wellknown Paleoindian (or Clovis) site of Topper, as well as at the nearby sites of Big Pine Tree and Charles. In 2012, all of these efforts led to the installation of a permanent exhibit at USC Salkehatchie. In partnership with Dean Ann Carmichael of that campus, a display featuring artifacts from these significant Clovis sites was installed in the library. The exhibit is free to the public.

A national research community dedicated to addressing questions related to late Pleistocene adaptations has emerged from the contributions of avocational archaeologists working alongside professional archaeologists from several universities, including the University of Arizona, Texas A & M, Mississippi State University, and the University of Tennessee. Their work is tackling several provocative questions relating to the earliest human occupation of the Americas.

As examples, the Topper site has one of the best-preserved deposits of Clovis artifacts in North America, which are yielding important insights into patterns of Paleoindian mobility and stone tool production. Goodyear and



Figure 2: Al Goodyear at the Topper site. (Photo by Daryl Miller)

some of his colleagues argue (not without some controversy) that Topper also has a pre-Clovis component that significantly pre-dates traditionally accepted dates for the colonization of North America. Intriguingly, the Clovis deposit at Topper has provided key elemental markers indicative of the impact of a possible comet strike around 12,900 BP; some researchers believe this impact may account for a wide pattern of late Pleistocene extinctions.

In keeping with the mission of SCIAA to explore and share the heritage of South Carolina with as wide an audience as possible, Al's work has had a considerable impact by virtue of engaging over 40 scientists from around the world, by leading to numerous theses and dissertations by graduate students, and by training a generation of avocational archaeologists from all walks of life. From all of your colleagues, thanks for a job well done!

This award was nominated and submitted by Nena Powell Rice, long-time friend and colleague of Al Goodyear.