

Arkansas Archeological Survey

Annual Report 2015-2016



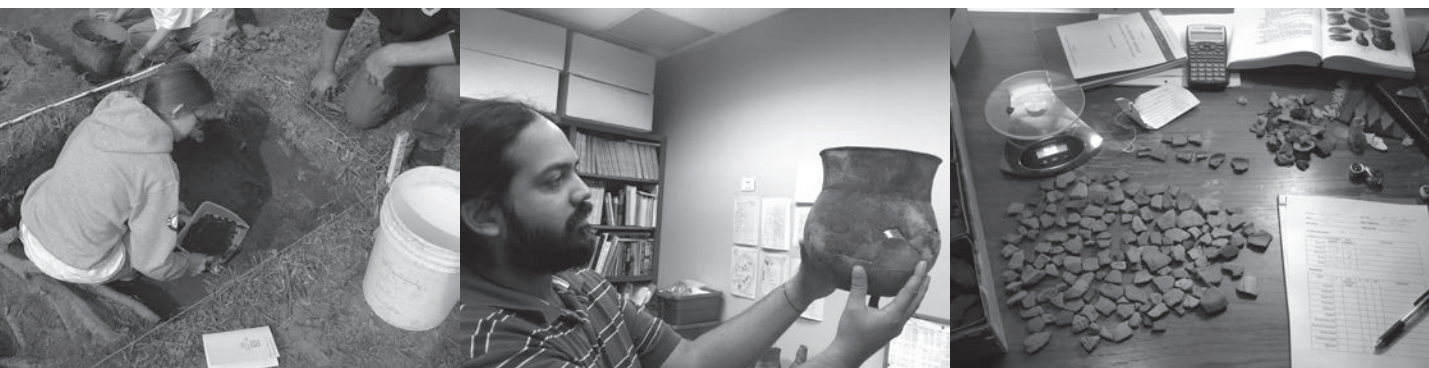
A Division of the University of Arkansas System

Arkansas Archeological Survey

Annual Report for fiscal year 2015–2016



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Contents

Introduction.....	1
Highlights for 2015–2016.....	2

Reports of the Survey Research Stations

Toltec Mounds Archeological State Park.....	20
Parkin Archeological State Park.....	28
University of Arkansas at Fayetteville.....	30
University of Arkansas at Fort Smith.....	36
Winthrop Rockefeller Institute.....	40
University of Arkansas at Pine Bluff.....	45
University of Arkansas at Monticello	51
Henderson State University.....	58
Southern Arkansas University.....	64
Arkansas State University.....	69

Reports of the Coordinating Office, Fayetteville

The State Archeologist.....	76
The Survey Registrar	79
Sponsored Research Program	83
Computer Services and Archeogeophysical Applications	91
Publications Program.....	102
Photographic and Graphic Arts Support.....	105
Partners in Preservation	106
Accounting & Administrative Staff.....	111
How to Contact the Arkansas Archeological Survey	112
Appendix 1. Reports & Publications by ARAS Staff, 2015–2016	113
Appendix 2. Presented Papers, Symposia & Workshops, 2015–2016.....	115
Photo Identifications & Credits.....	117

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University of Arkansas System

Arkansas Archeological Survey

INTRODUCTION

The Arkansas Archeological Survey (ARAS) is a part of the University of Arkansas System. Our mission is to study and protect archeological sites in Arkansas, to preserve and manage information and collections from those sites, and to communicate what we learn to the people of Arkansas. Cooperative agreements with seven state university campuses, two state parks, and the UA System's Winthrop Rockefeller Institute enable scholars at research stations around the state to carry out this mission. The Survey has been a model for state-wide archeological programs in the United States and around the world.

Our coordinating office (CO) in Fayetteville is the Survey's administrative body. The Director, the State Archeologist, the Survey registrar, the fiscal office, publications staff, and outreach programs operate from the CO. The registrar maintains a central archive of all archeological site records for the state. The coordinating office building also contains the University of Arkansas Museum Collections Facility. The Survey acts as a repository for archeological collections originating from state and federally funded projects in Arkansas, our own research, private consulting firms, and donations. Also at the coordinating office are our sponsored research program (SRP) and computer services program (CSP) which support themselves in part through grants and contracts with local, state, and federal agencies. The CSP maintains several websites with educational information on Arkansas archeology and updates about recent and current research projects. The CSP also supplies research support through our archaeogeophysical program, employing the latest technologies for nondestructive detection of subsurface features at archeological sites.

Professional archeologists at our research stations teach college courses in anthropology and assist their university museums, or develop materials for public interpretation at the state parks, in addition to conducting basic research in their areas. Survey archeologists help to increase our knowledge of the past and its relationship to the present by working closely with local, state, and federal government agencies, American Indian tribes, college students, school teachers and K-12 students, tourists, fellow scholars, land owners and managers, amateur archeologists, and all Arkansas residents interested in archeology, prehistory, and the early history of the state. This report summarizes our research, teaching, and service activities for the year.

At the Survey, science and service go hand-in-hand.

George Sabo III, Ph.D.
Director



Since its inception in 1967, the Arkansas Archeological Survey (ARAS) has earned national and international recognition as a model organization for research, information management, and public education about archeology. The scientific reputation of our staff is excellent, yet our accessibility and close cooperation with amateur archeologists, American Indian tribes, land owners and managers, teachers and students, the business community, and governmental departments and agencies prevent us from becoming an ivory tower institution.

The Survey provides considerable educational, economic, and quality-of-life benefits to Arkansas citizens. Survey faculty teach at seven state university campuses. Our field and laboratory projects provide research opportunities for both undergraduate and graduate students. We distribute free curriculum enrichment materials and offer dozens of speaker programs to public schools and other groups across the state each year.

The Survey contributes to economic development in Arkansas by assisting federal and state agencies, municipalities, and developers in complying with environmental laws that protect heritage resources. We also assist State Parks and other agencies and institutions with exhibits and interpretive programs that help the tourism industry.

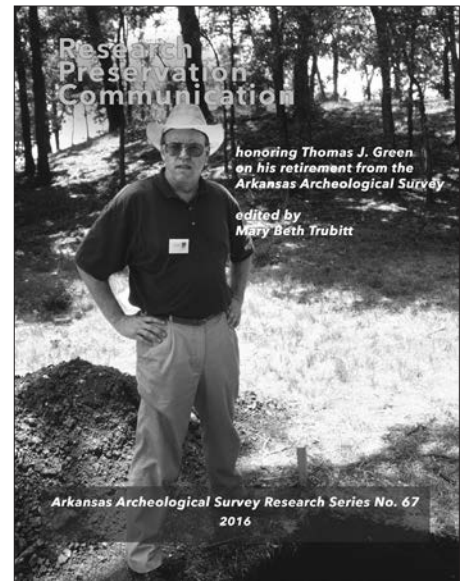
Finally, the quality of life of all Arkansas citizens is enhanced by our outreach mission to share with the general public what we learn about the heritage of our state through talks and demonstrations, educational programs, print media, and the Internet.

The Survey's unique contribution and enduring success are products of our balanced science and service design, the expertise and integrity of our personnel, and the dedication and energy of our supporters. The following pages highlight some of our accomplishments in 2015–2016.

Above: Elizabeth Horton, ARAS station archeologist at Toltec Mounds Archeological State Park, looks for carbonized botanical remains inside a ceramic vessel at the Richards Bridge site in northeast Arkansas; June 2016, during the Arkansas Archeological Survey / Arkansas Archeological Society Training Program. Photo by George Sabo III.

Scientific Achievements & Archeological Mission

- Survey staff authored or coauthored **33 publications and reports**, and presented **30 papers or posters at meetings and conferences** in 2015–2016. Among new publications by Survey staff this year:
 - Mary Beth Trubitt (ARAS-HSU) edited the volume *Research, Preservation, Communication: Honoring Thomas J. Green on His Retirement from the Arkansas Archeological Survey*, which we published as No. 67 in the ARAS Research Series. Trubitt also authored/coauthored two chapters. Additional chapters in the volume were contributed by ARAS archeologists Jodi Barnes, Jamie Brandon, Jami Lockhart, Juliet Morrow, and George Sabo. ARAS graduate assistant Michelle Rathgaber also has a chapter.
 - Carl Drexler (ARAS-SAU) edited the University of Tennessee Press volume *Historical Archaeology of Arkansas: A Hidden Diversity*, and contributed the introductory chapter. Other ARAS contributors to this book include Jamie Brandon and Jerry Hilliard.
- Elizabeth Horton (ARAS-TMRS) took part in the **Mississippian Iconographic Conference** held in 2016 at the School of American Research in Santa Fe.
- The Survey's **AMASDA database (Automated Management of Archeological Site Data in Arkansas)** is **one of the oldest and best computerized site file systems in the country**. Our computer services program and registrar's office personnel are constantly working to expand and upgrade the AMASDA system to add new functionality. With the help of a major grant from the Arkansas Highway and Transportation Department, the system is now available online (password protected) for qualified researchers.
- **513 new archeological sites** were recorded, bringing the total number of sites in Arkansas site files to **48,284**.
- **224 new archeological projects** were entered into the database, bringing the projects total to **6946**.
- The Survey registrar facilitated **192 requests for information** from the Arkansas site files by students, researchers, and project managers and assisted **59 private firms** conducting projects in Arkansas.
- Our sponsored research program conducted projects supported with **new funds (grants and cost-share agreements) totaling \$220,125**.
- Volunteer participation in our projects continued to show a high level of interest in archeology.



the Survey logged over 10,375 hours of volunteer help from Arkansas Archeological Society members, students, and others on various projects around the state



Volunteers of all ages take part in a 2016 Spring Break Dig led by graduate student Michelle Rathgaber at the Manley-Usrey site in NE Arkansas.

Archeological Projects Around Arkansas 2015–2016

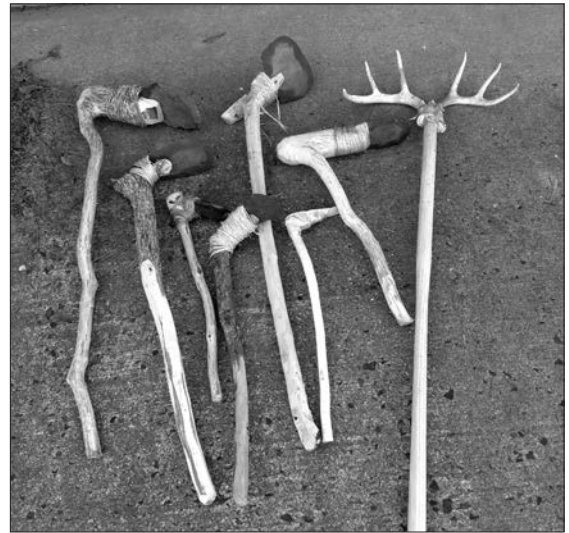
- At Toltec Mounds State Park research station, major efforts this year remained focused on the new Plum Bayou Garden. Weekend workshops about archeology and ethnobotany involved students from the University of Arkansas Monticello, Hendrix College (including visiting Native American students from the Tohono O’odham Nation), Pulaski Technical College, and recent UALR graduates. Some of last summer’s research focused on methods used by low-level food producing societies to manage plant resources and mitigate loss due to pests and weather conditions. These studies not only help archeological and historical interpretation, but can assist modern small-scale (especially organic) agricultural practice. The Plum Bayou Garden project also was integral to the Survey’s “Gathering, Gardening, and Agriculture” 5th grade social sciences curriculum in development this year. See pp. 20–23 for more information.
- At the Parkin State Park research station a \$19,469 grant from the Elfrieda Frank Foundation supported investigations on top of the mound to see if remains of a post discovered there in 1966 could be more accurately dated to support its identification as the remnant of a large wooden cross erected by Hernando de Soto’s men in 1541. The post remnant was completely removed and transported to the ARAS lab in Fayetteville, where it was examined by Dr. David Stahle (Professor of Geosciences, University of Arkansas), an internationally recognized tree-ring expert. Unfortunately, the post could not be dated by tree-ring analysis, but samples were taken for radiocarbon dating. The Parkin station also hosted, for a second consecutive year, Training Program excavations at a Parkin phase village site near the Park. The Training Program is an annual event jointly sponsored with the Arkansas Archeological Society. See pp. 38 and 87–88 for more information on the De Soto cross and pp. 20, 37, 72, 96, 109 for more information on the Training Program.
- Major accomplishments at the UAF research station were divided between research on bluff shelter archeology in the Arkansas Ozarks and on Civil War archeology in northwest Arkansas. The Bluff Shelter project includes digitizing records from 1930s excavations carried out by the University of Arkansas Museum. With ANCRG funding, records of work at over 80 Ozark sites have been scanned in high resolution archival image format and stored on our servers, with lower resolution versions incorporated into our AMASDA site file database. Also a new educational website about Ozark bluff shelters was developed, and went live shortly after this fiscal year. Civil War archeology moved ahead in northwest Arkansas as the Survey began fieldwork in partnership with the National Park Service for a multiyear project at Pea Ridge National Military Park. This collaborative effort is part of the federal Cooperative Ecosystem Studies Units (CESU) program. 2015–16 fieldwork involved mapping, magnetometer survey, and metal detection ground-truthing on Ruddick’s Field, an important part of the battlefield landscape. Read more about these projects on pp. 30–34, 85, 86, 95–96.
- The UAFS research station carried out research at two historic properties owned by the University of Arkansas - Fort Smith. Work at the Drennen-Scott Historic Site in Van Buren has been a continuing project for the station since it opened in 2006 and is part of the Survey’s cooperative agreement with the UAFS campus. Archeology students get the opportunity to participate in fieldwork at the site as part of their course enrollment. Results of the ongoing excavations have contributed information about outbuildings and other features of the property that aid restoration. The house is used as museum space and a training center for the Historical Interpretation degree program. This year, archeogeophysical survey was also performed at the Willhaf House, another historical property in Van Buren acquired by UAFS in 2015. The 1840–1860 structure is intended for additional exhibit space, and a modern addition on the house will one day become the ARAS-UAFS research station. The Survey’s work at the Willhaf House will aid in development of a master plan for the property. Read more about this on pp. 36–38, 88.
- The WRI research station developed a long-term project to study rock shelters on Petit Jean Mountain. While many of these sites have been investigated for their rock art, less is known about other uses of the rock shelters, so the main question for this



Professor Stahle examining charred post remains from the Parkin site in the laboratory.

study is to investigate the nature of the occupations. This includes finding answers to the basic who, what, when, and why questions—what kind of social groups occupied the sites and what was their cultural affiliation, when were they occupied and for how long, and what were the shelters used for? The team also wants to be able to connect their findings about rock shelter occupation to the rock art, and especially to find ways to help date the rock art. Test excavations at a small rock shelter in the spring began this project. Local volunteer Don Higgins assisted the WRI staff. Preliminary analysis suggests a Mississippian cultural affiliation. WRI station also proceeded with their Native American Gardens Project, and took part in development of the “Gathering, Gardening, and Agriculture” 5th grade social sciences curriculum. Read more about these projects on pp. 40–43.

Replica gardening tools made by Jared Pebworth and Mike Evans for the ARAS-WRI station Native American gardens.



- UAPB research station personnel continued a multiyear project in partnership with the National Park Service Midwest Archeological Center to conduct a comprehensive archeological inventory of the Osotouy Unit of Arkansas Post National Memorial. The Osotouy Unit contains the location of the first Arkansas Post, established by Henri de Tonti in 1686. In 2015–16, crews carried out Phase 2 fieldwork at the Menard-Hodges site, including gradiometry survey for geophysical mapping and follow-up test excavations. Other fieldwork looked for the boundaries of the nearby Wallace Bottom site, and station archeologist John House worked on a report of previous excavations carried out at the Lake Dumond site. The three sites are within an area known archeologically as the Menard Locality. The UAPB station also continued research at Fourche Island near the Little Rock Port Industrial Park, with topographic mapping of the Thibault Plantation site and geophysical survey of portions of the site owned by the Quapaw Tribe. For more information on this work, see pp. 45–49, 86, 97.
- The UAM research station carried out more excavations at the Taylor House (also called Hollywood Plantation) in support of restoration work by the University. This has been an ongoing project now for several years, involving Survey crews, students, and volunteers. Fieldwork this year identified some features in the ground relating to the smokehouse, but brick piers showing a definite foundation so far have not been located. On the other hand, artifacts and animal bones lend a good amount of information about the smokehouse area and give clues to the food habits of the Taylor family. Research also included visits, along with Nancy Theiss from the Oldham County Historical Society in Kentucky, to the Drew County Archives and other repositories. This was part of a team effort to put together the history of the Taylor family, who came to Arkansas from Kentucky. Station archeologist Jodi Barnes received the 2016 Walter L. Brown Award for Best Article in a County or Local Journal from the Arkansas Historical Association for “The Archeology of Health and Healing at Hollywood Plantation,” published in the *Drew County Historical Journal*. Read more on pp. 51–55, 88.



Jodi Barnes receives the 2016 Walter L. Brown Award at the annual meeting of the Arkansas Historical Association.

- At the HSU research station, past lifeways in the Ouachita Mountains remain a major focus of study. Processing and analyzing information from two seasons of excavation at two sites in Montgomery County has continued to a point where station staff and their colleagues have begun to publish some results. The totality of the project seeks to explore people’s daily lives in the

past in the Ouachita Mountains, finding clues to social identity, interaction between different Native American communities, and change through time in the artifacts and architectural traces uncovered at the sites. With complete site maps, 11 AMS radiocarbon dates, and specialist analysis of plant and animal remains, the team can say that the sites were occupied by ancestral Caddo Indians over an extended period—between 2300 BC and AD 1650. A new direction for the project, with a grant from University of Missouri Research Reactor, was to submit ceramic sherds for neutron activation analysis. This helps determine where ceramic vessels were made, and how they were traded from community to community, indicating social interactions. The station also works continuously with private landowners and public agencies to monitor archeological sites, advise, and gather information help manage our state's cultural resources. To read more see pp. 58–62.



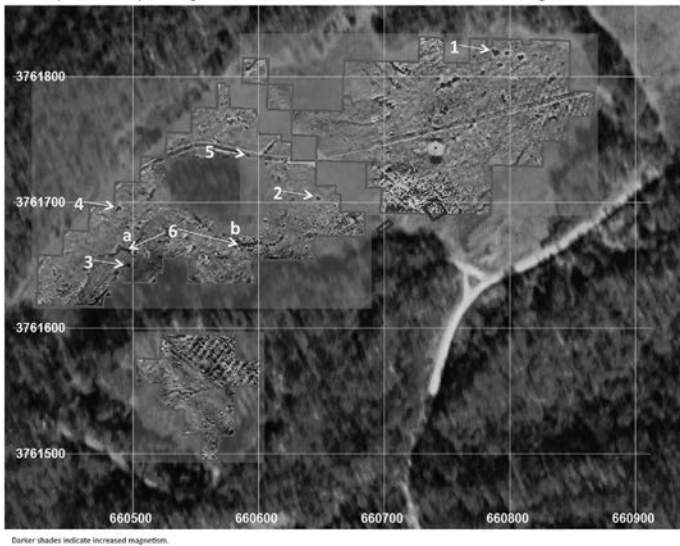
Shovel testing to help monitor site 3GA22 in Hot Springs National Park. Volunteer Lili Petrovic (left) and ARAS-HSU station assistant Katie Leslie (right).

- The SAU station in Magnolia has focused on Civil War archeology during the past year or so. This is in part because the new station archeologist, Carl Drexler (formerly the station assistant) is an expert in Conflict Archeology with experience in the study of battlefield landscapes. Drexler became station archeologist as of December 1, 2016, after Carol Colaninno left ARAS-SAU to take over the position of ARAS Sponsored Research administrator in Fayetteville. Drexler led archeological surveys at two Arkansas battlefield locations—Elkins' Ferry in Nevada County and Wallace's Ferry in Phillips County. The Elkins' Ferry work was funded by Arkansas Historic Preservation Program and carried out in partnership with AHPP, Nevada County Depot and Museum, and the Civil War Trust. Volunteers assisted the fieldwork as well, which consisted of systematic metal detector survey on 448 acres purchased to preserve the battlefield. Results confirmed several important combat actions carried out as part of the 1864 Camden Expedition. The whole project contributes to development of heritage tourism. Work at Wallace's Ferry was a continuation of previous investigations. Again, a systematic metal detector survey by professional and trained volunteer crew members this year helped to establish the limits of the battlefield and to get a sense of troop positions and movements. Read more on pp. 64–67, 88–89.
- Julie Morrow (ARAS-ASU) co-organized and co-chaired a symposium on the peopling of the New World at the Annual Meeting of the Society for American Archaeology. She brought an international group of scholars together to present papers about the archeology of Ice Age foragers in light of recent DNA studies published in *Science* and *Nature*. The symposium was a springboard for journal publications. Morrow's contribution to the understanding of the peopling of the New World is a manuscript conceptualizing the origins of the Clovis techno-complex, which she plans to add as a chapter of a book she has been working on for several years. Clovis origins have been elusive because the evidence is sparse and the geographic expanse covered is extreme. Within Arkansas, Morrow has worked with the Natural Resources Conservation Service and Corps of Engineers to identify the potential for buried early sites in various areas of Arkansas. The earliest period of human occupation in the state, so far as we know, is the Clovis culture. Read more about ASU station projects on pp. 69–72.

CESU PROGRAM IN ARKANSAS: TRADING POSTS & BATTLEFIELDS

Two multiyear projects begun during the previous (2014–15) fiscal year received continuing support from the National Park Service through the federal Cooperative Ecosystem Studies Units (CESU) program. Both projects are being carried out in collaboration with the Midwest Archeological Center of the National Park Service.

Osotouy Gradiometry Coverage as of 2-19-2016 with Recommended Subsurface Testing Areas.



Comprehensive Archeological Investigations in the Osotouy Unit of Arkansas Post National Memorial is planned as a four-year effort (now in the second year). The goal is to integrate all previous studies at several sites in the area of Arkansas Post National Memorial that represent the Quapaw presence at this locale and their interactions with Europeans. Arkansas Post was the first settlement of French and Spanish traders and colonists in what became the state of Arkansas.

Gradiometry results and suggested areas for test excavation at the Osotouy Unit of Arkansas Post.

Comprehensive Archeological Inventory of Ruddick's Field, Pea Ridge National Military Park was a survey of one of the main battlefield areas on the property of the national park. In addition to Ruddick's Field, a second portion of the battlefield landscape, known as Leetown, will be investigated. The results of the archeological work will enable expanded heritage tourism, programs, and exhibits at Pea Ridge.

Read more about these projects, which involve ARAS staff from several research stations and coordinating office units, working with local volunteers and personnel from the NPS Midwest Archeological Center, on pp. 32–33, 45–46, 86, 95–96, 97.

NPS volunteer Sam Garrison holds a solid shot cannon ball recovered from Ruddick's Field battlefield at Pea Ridge National Military Park.



Contributions to Higher Education in Arkansas

- **George Sabo III**, Survey Director since 2013 and **Professor of Anthropology**, also serves as **Co-Director of the Environmental Dynamics Interdisciplinary Ph.D. Program**, which is part of The Graduate School and International Education at the University of Arkansas.
 - Sabo served on 8 Anthropology Department and Environmental Dynamics Program M.A. and Ph.D. student committees, and chaired 5 Anthropology and Environmental Dynamics Ph.D. committees at UAF.
 - Sabo regularly teaches an ENDY required core course or other upper level course in the Department of Anthropology at UAF; during Spring 2016 he taught the core course ANTH/ENDY 6033, Society and Environment (9 students).
- Ten Survey archeologists held **research faculty titles in the Department of Anthropology** at the University of Arkansas in 2015–16: Jodi Barnes, Jamie Brandon, Carol Colaninno (through February 2016), Carl Drexler, Ann Early, Elizabeth Horton, John House, Jami Lockhart, Jeffrey Mitchem, Juliet Morrow, and Mary Beth Trubitt.
- Survey archeologists **taught 19 courses to 240 students at seven university campuses** in Arkansas (UAF, UAPB, UAM, UAFS, ASU, HSU, and SAU).
- Courses taught by Survey archeologists fulfilled **basic education requirements** and contributed to **several undergraduate majors and graduate degree programs** at Arkansas universities, including Anthropology, History, Geosciences, and Environmental Dynamics at UAF; Heritage Studies at ASU; and African Studies at UAPB.
- Survey archeologists contributed **guest lectures, demonstrations of geophysical technologies, and tours of facilities** to college and university students in Arkansas.
- Survey archeologists served on **24 thesis or dissertation committee positions (member or chair) for UAF graduate students** in Anthropology and Environmental Dynamics, **1 committee for a UALR graduate student**, and **2 graduate committees for an out-of-state institution** (Southern Illinois University at Carbondale).
- Survey archeologists at all research stations and the coordinating office provided opportunities for **hands-on research experience** in archeological fieldwork and laboratory analysis for undergraduate and graduate students at host campuses.
- The Survey provided **employment to students at UAF, UAFS, and UAM**.
- **Additional service to Arkansas college and university campuses** included:
 - participation in course and program development for host departments
 - membership on campus and departmental committees, and curatorial functions for campus museums
 - assistance with historic properties and collections owned or managed by the universities – e.g., the Joint Educational Consortium's Hodges Collection (HSU); Lakeport Plantation (ASU); Drennen-Scott Historic Site (UAFS); Camp Monticello (UAM); the Taylor House/Hollywood Plantation (UAM); development of SAU Museum; ongoing UA Museum collections research and on campus exhibit development (UAF); and more.

Survey archeologists taught 19 college classes to undergraduate and graduate students studying at 7 university campuses in Arkansas

Graduate Student Research

The Arkansas Archeological Survey supports graduate students working on internship, thesis, and dissertation projects both at the Coordinating Office and at our research stations. Support is provided through employment when available and for assistantships paid out of our base funding and through grants or other special project funds. We also work closely with the Anthropology Department and the J. William Fulbright College of Arts and Sciences at the University of Arkansas to host students who receive support through the Hester A. Davis Internship in Public Archeology and the Charles R. McGimsey III Endowment for Cultural Resource Management. Our graduate students work on a wide variety of research, preservation, and educational initiatives and thus make valuable contributions to our mission within the University of Arkansas system.

- **John Samuelson** is a Ph.D. candidate in the University of Arkansas Department of Anthropology. He is supported by the Arkansas Archeological Survey as a full-time staff member in our Computer Services Program at Fayetteville (see pp. 99–101 in this Annual Report).

STABLE ISOTOPE RESEARCH

John continued his dissertation research at the Crenshaw site (3MI6), a Caddo ceremonial site in southwest Arkansas. He is analyzing stable isotopes as they relate to the settlement patterns and diet of the Caddo Indians to help identify the skull and mandible burials in the cemetery at Crenshaw. John's reanalysis of strontium isotopes suggests that the remains represent a local burial practice. He is testing this hypothesis in his dissertation by sampling the surrounding area's biologically available strontium. Reanalysis of other isotopes allows statistical methods to be used to answer pressing questions about diet, which will also help confirm whether or not these people came from outside the region. Results will be combined with a geophysical study to determine how settlement patterns might be correlated to the skull and mandible burial rituals. John received grants from the Department of Anthropology and the Arkansas Archeological Society to carry out this research. His project will aid the Caddo Nation in determining relationships to the individuals buried at Crenshaw.

John worked with Dr. Adriana Potra of the Geosciences Department and Erik Pollock of the Biological Sciences Department at the University of Arkansas to process strontium and lead isotopes from small animal teeth. The lead isotopes from prehistoric teeth are some of the only such samples in the U.S. The strontium data for the local animal samples match the skull and mandible cemetery; the lead data from the local animals, compared to geological data from other regions, suggests that sampling the skull and mandible cemetery for lead isotopes will result in a much stronger conclusion than is possible with strontium data alone. John is preparing a National Science Foundation grant to pay for strontium, lead, carbon, nitrogen, and oxygen data from Crenshaw and surrounding sites. The Caddo Nation of Oklahoma has given permission for human teeth to be tested to determine the cultural affiliation of the skulls and mandibles.



John Samuelson performing column chemistry on animal tooth enamel in a class 100 clean lab.

MILLWOOD RESERVOIR BIOARCHAEOLOGICAL PROJECT

John Samuelson worked with Dr. Jerry Rose and others to document human remains from the Millwood Reservoir which are about to be repatriated under NAGPRA. This work was completed by a volunteer group of bioarchaeology students from the University of Arkansas, supervised by Dr. Rose and John. Contributors include Elizabeth Brandt, Heidi Davis, Ashley Shidner, Dr. Nicole Smith, and Dr. Teresa Wilson. The team documented certain aspects of the skulls for comparison to the work at Crenshaw, in cooperation with the U.S. Army Corps of Engineers and the Caddo Nation. A report is in preparation and the initial results were presented at the annual meeting of the Southeastern Archaeological Conference. The results of this project will help with the identification of the Crenshaw remains.

- **Michelle Rathgaber** is a Ph.D. student in the Environmental Dynamics program at the University of Arkansas. She holds an MSc in Osteoarchaeology from Bournemouth University in the UK and a B.S. in Anthropology and Zoology from the University of Wisconsin-Madison. She is being funded by a Distinguished Doctoral Fellowship as well as a graduate assistantship through the Arkansas Archeological Survey (see also p. 98).

EARTHQUAKES & ARCHEOLOGY

Michelle's research focuses on the New Madrid earthquakes in NE Arkansas/SE Missouri and how they may have affected life there in the Middle-Late Mississippian cultural period (around AD 1200s–1500s). She is using archeological excavations at two sites (Manley-Usrey and Eaker) as well as larger-scale views of the landscape and environment of the area to try to see the effects of the large scale New Madrid earthquakes on how and where people were living. During the previous academic year, Michelle conducted excavations at the Manley-Usrey site (3MS106) near Blytheville as a “Spring Break Dig” with the help of ARAS staff and volunteers from the Arkansas Archeological Society. This project built upon an earlier excavation Michelle conducted at the site, which is a late prehistoric Native American village showing earthquake features. Michelle is using geophysical and excavation results from this site, from the nearby Eaker site (3MS105), and other related sites in the Pemiscot Bayou area, to try to understand how large earthquakes affected these sites, and how Mississippian people of the AD 1450s may have responded to them.

Michelle Rathgaber at the Manley-Usrey site.



- **Jessica Howe Cogburn** is the Survey's graduate assistant in Fayetteville, where she is working on a database for the State Historic Preservation Office regarding archeological site eligibility for the National Register of Historic Places. Her dissertation research focus is on late prehistoric and protohistoric sites in the Central Arkansas River Valley. She will be analyzing collections from a number of sites in this region, primarily focusing on the Isgrig site (3PU15), which is located south of Little Rock (see also pp. 79–81).

ISGRIG SITE & QUAPAW IDENTITY

The central and lower Arkansas River Valley is home to a strong prehistoric Native American history, including great evidence for protohistoric period occupation. Archeological research has uncovered large amounts of data from a number of sites, including lithic technology, evidence of architecture, and ceramics. The ceramics in the region reflect multiple traditions that some scholars have linked to Caddo, Quapaw, and Tunica cultural affiliations; however, little is yet known about the prehistory and protohistory of this region. Jessica's research will add significantly to this information by examining the excavations and artifacts recovered from site 3PU15, located near Little Rock, Arkansas, along with a reexamination of data from numerous other sites in the region. The combination of archeologically defined ceramic styles and traditions with chronometric dating methods, primarily thermoluminescence dating, will begin the process of establishing a firm chronology for 3PU15 and a general understanding of its role in the occupation of the central Arkansas River Valley. A more thorough understanding of the site's ceramics can indicate the extent of trade and communication within the Arkansas River Valley as well as with other regions. Questions of coalescence, or the creation of a new community consisting of people from different groups and languages, have arisen for the protohistoric Arkansas River Valley and are applicable to this research. Ethnogenesis, or the formation of an ethnic group, is also a pertinent question, with the Quapaw Tribe claiming a connection to 3PU15 as a possible location of their early formation. Ultimately, it is the goal of this research to obtain a better grasp of the movement of ideas, goods, and people in the central Arkansas River Valley during the protohistoric period.



Jessica Howe Cogburn at the Isgrig site.

- **Sarah Hunt Shepard** completed her Master's degree in anthropology at the University of Arkansas in 2016. She has worked at the Survey since 2013, supported by the Hester A. Davis Internship in Public Archeology and an assistantship funded by a National Park Service Grant. She was hired as a Research Assistant in November 2016. Sarah helps to update and maintain the Survey's AMASDA database and has recently begun a project to digitize research station records (see also pp. 79–81).

NAGPRA COMPLIANCE

Sarah Hunt Shepard was funded by the Survey through a NAGPRA Consultation/Documentation grant received from the National Parks Service while she completed her Master's degree. The conclusion of her Davis Internship will result in the publication of five Notices of Inventory Completion and two Notices of Intent to Repatriate in the Federal Register during 2017. These notices are comprised of a total of 1142 individuals, 2131 associated funerary objects, and 31 unassociated funerary objects. These publications will mark the end of an intensive three year project, during which each collection was thoroughly researched and documented. As a result, the Survey will now be closer to reaching compliance with the Native American Graves Protection and Repatriation Act.



Sarah Hunt Shepard working on artifacts in the ARAS Lab.

Contributions to Public Schools and K-12 Education



- **Gathering, Gardening & Agriculture – new 5th Grade Social Sciences Curriculum.** With funding from multiple sources (a Public Outreach Grant from the Southeastern Archaeological Conference, a Bill Jordan Public Education Grant from the Arkansas Archeological Society, a Pre-production Media Grant from the Arkansas Humanities Council), several ARAS staff developed a 5th grade social sciences curriculum to be made available on the ARAS website in 2017. Originally spearheaded by Carol Colaninno, Jodi Barnes (ARAS- UAM) took over leadership of the project when Colaninno resigned in order to accept a new position in another state. Other partners in the project are Emily Beahm (ARAS-WRI) and Elizabeth Horton (ARAS-TMRS). This curriculum will present the history of early Arkansas through the diverse plant use, foodways, and plant-based traditions of Native Americans, European settlers, and African Americans, and will show how archeologists use scientific techniques to explore these topics.
- Among the other unique and creative educational activities that Survey archeologists were involved with this year:
 - **Project Dig.** ARAS-WRI station staff, cooperating with WRI Program Coordinators, again presented Project Dig, a program for Gifted and Talented students that uses archeological concepts and active learning to teach critical thinking and the scientific method. **52 students** from Dardanelle, Perryville, Hector, and Bigelow participated, along with their teachers and some parents.
 - **Bend.** Jodi Barnes (ARAS-UAM) obtained funding from Arkansas Humanities Council and Arkansas Arts Council to bring performance artist Kimi Maeda to Arkansas. Maeda's *Bend* performance tells the story of internees at a Japanese-American internment camp during World War II. Performances were given in Little Rock and McGehee. Maeda then presented a day-long workshop for **40 high school students** in McGehee, who visited the World War II Japanese-American Internment Museum and learned about various aspects of Japanese culture by trying their hands at sand painting, getting a language lesson from students at the UAM Japanese Club, and preparing a Japanese meal.
 - **Webb Mounds Video.** Julie Morrow (ARAS-ASU) helped students from Nettleton High School make a video about the educational importance of learning about and preserving this mound site in Craighead County and others like it.
 - **Arkansas Arts Academy Virtual Field Trip.** Jodi Barnes (ARAS-UAM) collaborated with Kim Wilson (A+ Schools) and Shelle Stormoe (AHPP) to create a teleconferenced "virtual field trip" to Rohwer and the WWII Japanese American Internment Museum for the Arkansas Arts Academy in Rogers, Arkansas. The program, which focused on creativity among internees, was made available to classrooms around the state.
 - **4-H Day of Archeology.** Jodi Barnes and the ARAS-UAM station worked with 80 students attending the Desha County 4-H Day of Archeology to learn critical thinking and the scientific method through hands-on lessons of the whole process of archeology.
- The Survey continues to develop **educational Internet resources**, now including interactive websites (*Rock Art in Arkansas* and *Indians of Arkansas*), our new *Arkansas Novaculite* website for research and education, plus our re-designed main website with information about the Survey and our programs. Content continues to be added highlighting current research projects. During the year Lydia Rees and Jamie Brandon worked to develop a new website on *Ozark Bluff Shelters*. We also have a series of educational fliers available as downloadable PDFs that can be used for teacher preparation or as classroom handouts.
- Survey archeologists gave **talks and demonstrations** on archeology, American Indians, and early Arkansas history, including **Career Day** presentations, Project Dig, and an Archeology Day at WRI for homeschool students, to **approximately 670 K-12 students** and their teachers at schools, parks, and nature centers across the state.

“two student activities from the Rock Art website are included in a package of electronic resources distributed to Arkansas public schools by **The Learning Institute** in Little Rock

Public Service and Outreach

- The Survey works closely with **state and federal agencies** whose responsibilities under environmental and cultural preservation statutes include the management and protection of archeological sites:
 - Arkansas Highway and Transportation Department
 - Arkansas Department of Parks and Tourism/Arkansas State Parks
 - Arkansas Game and Fish Commission
 - Department of Arkansas Heritage and the Arkansas Historic Preservation Program
 - National Park Service
 - USDA Forest Service
 - U.S. Natural Resources Conservation Service
 - U.S. Army Corps of Engineers
 - U.S. Fish and Wildlife Service
- Jamie Brandon (ARAS-UAF), Jodi Barnes (ARAS-UAM), and Mary Beth Trubitt (ARAS-HSU) taught workshops on Historical Archeology, Historical Material Culture, Lithics, and Prehistoric Archeology to 120 participants in the Ouachita National Forest Heritage Resource Technician Program at several locations around the state.
- We continued our **NAGPRA compliance program** in cooperation with several American Indian Tribes. The federal Native American Graves Protection and Repatriation Act (NAGPRA) requires institutions such as museums and universities to inventory their archeological and ethnographic collections of human remains, funerary objects, sacred artifacts, and items of cultural patrimony. These remains and objects must be repatriated to modern representatives of the appropriate culturally affiliated American Indian Tribe. The Survey's activities are essential for compliance with this federal law. We also curate, under contract, collections owned by various government entities that are subject to NAGPRA.
 - State Archeologist Ann Early supervised graduate student Sarah Hunt Shepard, who finished work on *Notices of Inventory Completion* for ARAS collections under a \$63,000 NAGPRA Documentation Grant from the National Park Service awarded to Dr. Early. The Survey is now much closer to reaching full compliance with NAGPRA.
- Approximately **58 public lectures, workshops, and other presentations** by Survey staff, plus participation in **9 community events or festivals**, reached audiences of more than **2380**.
- 74 members of the Arkansas Archeological Society attended our jointly sponsored annual **Training Program for amateur archeologists**. The 2016 "Society Dig" at the Richards Bridge site in Crittenden County near Parkin Archeological State Park will add new information to aid interpretation at the Park.
- Survey archeologists provided consultation and advice to groups and individuals working on projects to document and protect **historic cemeteries, especially African-American cemeteries**.
- Survey staff have contributed over **40 articles** and reviewed many others for the Butler Center's *Encyclopedia of Arkansas History & Culture*.
- Survey staff members respond to 1000s of **requests for information** from members of the public every year, by telephone, email, in writing, and in person.



Jami Lockhart explaining archeogeophysical techniques at a public event.

- Survey staff created or assisted with a number of **exhibits** around the state:
 - John House (ARAS-UAPB) worked with staff of Dale Bumpers White River National Wildlife Refuge on preliminary designs for an exhibit about archeology at the Refuge
 - Jodi Barnes (ARAS-UAM) installed an exhibit about the Camp Monticello prisoner of war camp at the UAM library for Archeology Month
 - Mary Beth Trubitt and Katie Leslie (ARAS-HSU) created a rotating “Pieces of the Past” exhibit for the Huie Library on the HSU campus; they also installed the portable educational banner exhibits at Garland County Public Library and at Huie Library, placed another Archeology Month exhibit in the Garland County Library, and moved the Arkansas Novaculite banner exhibit to the Caddo/Womble Ranger District of Ouachita National Forest.



Entrance to the Plum Bayou Garden at Toltec Mounds Archeological State Park.

- With **experimental and educational gardens** at three of our research stations (Toltec Mounds Archeological State Park, Winthrop Rockefeller Institute, and Parkin Archeological State Park), the Survey is developing a new organizational focus on **the study of early agriculture in Arkansas and the Southeast**, and public education about this topic. The **Plum Bayou Garden** at Toltec Mounds Archeological State Park is the first such project to celebrate and teach about the indigenous plants that were domesticated and cultivated by Native people in the eastern United States. It is in its second full year and is a permanent feature at the Park. The **Mississippian Garden at Parkin** focuses on the “three sisters” crops (corn, beans, squash) imported from Central America that formed dietary staples of the later Mississippian cultures that dominated pre-Columbian economies at the time of European arrival, and that contributed much to the Columbian Exchange. The gardens at WRI include both an **American Indian Garden** and a **Pioneer Garden**, and offer visitors a chance to engage in gardening activities, including experimenting with a replicated set of implements. Associated with the focus on experimental/educational gardens is our new “Gathering, Gardening & Agriculture” 5th grade social sciences curriculum (see pp. 20–23, 42, 53–54, and 86–87).
- Our new **website was launched in July 2015**. Designed and implemented by our own Computer Services Program staff (Deborah Weddle and John Samuelsen), the new website offers a sleek modernized home page with a simpler and more effective menu structure that is easier to navigate, and a new concept for rotating content that emphasizes delivery of interesting information about archeological research and discoveries in Arkansas, and provides educational materials for public and schoolroom use.
- We maintain **popular educational interactive websites for the general public and fellow scholars**:
 - **Indians of Arkansas** provides content and lesson plans about the Native Americans who resided in Arkansas. It received **90,000 page views** in 2015–16.
 - **Rock Art in Arkansas** is a companion website to our Popular Series book and provides articles, lessons, and a picture gallery covering one of Arkansas’s most important archeological landscape resources. It received **21,500 page views** in 2015–16.

- The full version of *Arkansas Novaculite: A Virtual Comparative Collection*, authored by HSU station archaeologist Mary Beth Trubitt and her associates, provides resources for the study of Arkansas Novaculite as a raw material that was exploited for toolmaking and trade since ancient times. It had **11,500 page views** in 2015–16.
- A new website on *Bluff Shelters of the Arkansas Ozarks* was in development this year by Lydia Rees (ARAS-SRP) and Jamie Brandon (ARAS-UAF) as part of an ANCRC-funded project to update and preserve excavation records from the 1930s and to provide information to the public.
- **Science blogging** can be a significant medium for engaging with colleagues and public audiences. Carl Drexler (ARAS-SAU) blogs about his work at Trowel ‘n’ Transit (<https://cgdrexler.wordpress.com/trowel-n-transit/>) and participated this year in the Grand Challenges blog carnival with a post about his field of specialization, conflict archeology (<https://cgdrexler.wordpress.com/2016/01/18/conflict-archaeology-in-north-america-the-grand-challenges/>). Jodi Barnes (ARAS-UAM) again contributed to the Day of Archaeology with a blog post titled “How To Think Like an Archaeologist: Youth Archaeology in Arkansas.” Read it here <http://www.dayofarchaeology.com/youth-archaeology-in-arkansas/>. Emily Beahm (ARAS-WRI) wrote about the experimental Native American garden on the WRI blog here <http://rockefellerinstitute.org/blog/AASopenhouse>.
- Survey staff work with local landowners who are concerned about site looting and trespassing on their property. We respond to requests from concerned landowners to investigate and to recover information from sites that have been damaged by unauthorized digging. At right, ARAS-HSU staff, with volunteer assistance (Chester Shaw and Steve Adams are shown), responded to a landowner request to visit this site in Hot Spring County.
- The Survey and its research stations increased the use of **social media** to provide information about Arkansas archeology, our projects and discoveries, and local volunteer opportunities.



- Survey staff serve on a number of Boards and Commissions in Arkansas:
 - Ann Early (State Archeologist): Department of Arkansas Heritage **State Review Board for Historic Preservation**, an appointment by the Governor of Arkansas, elected Chairman; board member of the **Arkansas Humanities Council**, the **Arkansas Genealogical Society**, and the **Arkansas Women’s History Institute**; Vice President of the **National Association of State Archaeologists**.
 - Jamie Brandon (UAF): Chair, **State Review Board for Historical Preservation**; board member, **Arkansas Humanities Council**; Vice-Chairman of the **Arkansas Civil War Sesquicentennial Commission** (dissolved in December 2015).
 - Jamie Brandon and Jodi Barnes (UAM): board members, **Preserve Arkansas (formerly the Historic Preservation Alliance of Arkansas)**; Brandon was President in 2015 and Barnes was President-elect.
 - Carl Drexler (SAU): **Board of Trustees of the Arkansas Historical Association**.
 - Jerry Hilliard: advisor to the Board of Directors of the **Washington County Cemetery Preservation Group**.
 - Elizabeth Horton (TMRs): **Arkansas State Parks Cultural Resources Committee**.
 - Deborah Sabo and Marilyn Knapp (CO): Executive Committee of the **Arkansas Archeological Society**.

Professional Service

- Survey staff provided **consultation, advice, or other assistance** to over **130** agencies, firms, museums, schools, parks, civic groups, and other bodies, in addition to service rendered to research station host institutions.
- Survey staff served as officers, members of various committees, or in other service capacities for **professional organizations**:
Society for American Archaeology – Society for Historical Archaeology – Southeastern Archaeological Conference – Caddo Conference Organization – Florida Anthropological Society – Arkansas Historical Association
- The Survey posts “**Guidelines for Fieldwork and Report Writing in Arkansas**,” an appendix to the Arkansas State Plan, on its website for access by agency and private firm archeologists.

Grants & Cost-Share Agreements

- \$44,133 from ANCRC to ARAS-SRP for “Preserving the Prehistoric Heritage of South Arkansas.”
- \$20,396 from ANCRC to ARAS Registrar for “Enhancement of AMASDA” archeological site database.
- \$35,471 from ANCRC to ARAS-UAF for “Preserving and Interpreting Arkansas Bluff Shelters.”
- \$595 from the Arkansas Archeological Society’s Archeological Research Fund to Robert Scott (ARAS-UAPB) for an AMS date on charred nut shell from the Open Lake site, 3DR166.
- \$3033 from Arkansas Arts Council and \$1500 from Arkansas Humanities Council to Jodi Barnes (ARAS-UAM) to support the *Bend* performances and workshop.
- \$1990 SEAC Public Outreach Grant from the Southeastern Archaeological Conference to help fund teacher workshops for the Gathering, Gardening, and Agriculture 5th Grade Curriculum project.
- \$3290 Bill Jordan Public Outreach Grant from the Arkansas Archeological Society to fund a curriculum/activity workbook for the Gathering, Gardening, and Agriculture 5th Grade Curriculum project.
- \$4999 Pre-production Media Grant from the Arkansas Humanities Council to help fund production of a video web-series for teachers as part of the Gathering, Gardening, and Agriculture 5th Grade Curriculum project.
- \$1500 Public Programs Grant from Arkansas Humanities Council to Jodi Barnes (ARAS-UAM) for Preserve Arkansas Fall Ramble.
- \$17,037 for “A Smokehouse Plus a Kitchen Equals Foodways” and \$23,096 for “Archeology of the Hollywood Plantation Landscape” from UAM and ANCRC to Jodi Barnes (ARAS-UAM) for Taylor House excavations.
- \$710 from the Arkansas Archeological Society’s Archeological Research Fund to Mary Beth Trubitt and Katie Leslie (ARAS-HSU) for “Dating Architecture from the 2014 Society Training Program Excavations,” to perform botanical identification and AMS dating of a sample from 3MN298 Structure 2.
- \$3789 Major Grant from the Arkansas Humanities Council to Carl Drexler (ARAS-SAU) for fieldwork at the Wallace’s Ferry Civil War site.
- \$11,807 from AHPP to Carl Drexler (ARAS-SAU) for archeological explorations at the Elkins’ Ferry Civil War site.
- \$19,468.81 from the Elfrieda Frank Foundation to Jeff Mitchem (ARAS-PAR) for “Search for De Soto’s Cross at Parkin.”
- \$31,449 from the National Park Service (CESU) for Archeological Inventory at Pea Ridge National Military Park, Ruddick’s Field.
- \$18,814 from National Park Service (CESU) for Comprehensive Archeological Inventory at the Osotouy Unit, Arkansas Post National Memorial.

Honors & Awards

- The Arkansas Civil War Sesquicentennial Commission, Jamie Brandon, Vice-Chair, received the 2016 Henry Award for Arkansas Heritage, given by the Arkansas Tourism industry.
- Preserve Arkansas awarded the Arkansas Civil War Sesquicentennial Commission, Jamie Brandon, Vice-Chair, its 2015 award for Outstanding Achievement in Preservation Education Statewide.
- Jodi Barnes received the 2016 Walter L. Brown Award for Best Article in a County or Local Journal from the Arkansas Historical Association for “The Archeology of Health and Healing at Hollywood Plantation,” published in the *Drew County Historical Journal*.
- Jodi Barnes received a Project Archaeology Leadership Academy Scholarship to attend the Leadership Academy training program in Bozeman, Montana during 2016.
- The ARAS-UAM research station was awarded a Desha County 4-H Certificate of Appreciation.

Finding Creative Solutions to Persistent Challenges

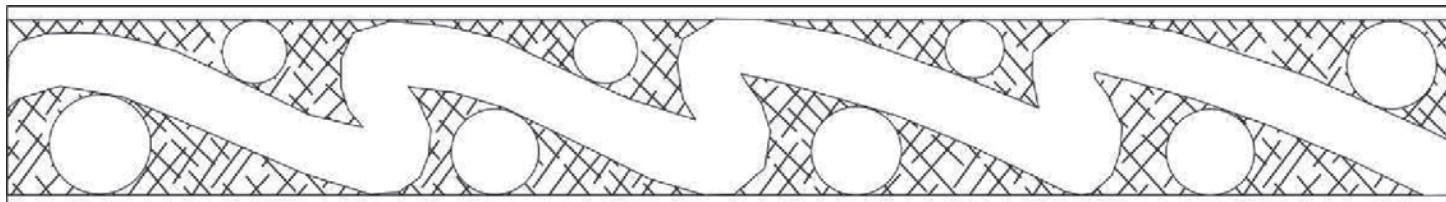
The Survey recognizes a number of ongoing challenges in fulfilling our mission of research, service, and education. We are committed to evaluating our programs from within and seeking ever more creative and more efficient ways to meet our goals.

- **Site Destruction.** Damage to sites and the loss of Arkansas’s irreplaceable archeological heritage due to changing land use patterns and vandalism remains an important issue.
 - The pressure of land development threatens sites in the state’s growth regions. Land-leveling for agriculture also destroys large numbers of sites. **The Survey works successfully with landowners and tenants to employ the latest technologies to rescue archeological information without impeding normal land use.**
 - Rock shelters in the Ozarks have increasingly been exploited as illicit methamphetamine labs, with attendant vandalism of archeological deposits. **The Survey works with various law enforcement agencies to assist investigations and prosecutions.**
 - The State Archeologist, the Survey, and the Arkansas Archeological Society are working together to train more site stewards in the **Site Steward Program**; this program assigns a trained volunteer to monitor the condition of a particular site, with the permission and cooperation of interested landowners, and to perform occasional clean-up or erosion control.
 - **The Archaeological Conservancy** purchased 8 archeological sites in Arkansas between 2001 and 2014. The Survey continues to work closely with the Conservancy to identify additional sites that can be secured for future preservation.
- **Funding for Backlog of Reports.** It is often easier to obtain funding for the more “glamorous” fieldwork phase of an archeological project than for specialized laboratory work and report-writing. Yet, excavations mean little until what we learn from them becomes available to our colleagues, to students, and to the interested public. To support the “lab and desk work” necessary to bring our research to full fruition, the Survey has sought **grants from the Arkansas Natural and Cultural Resources Council. We have now completed 16 ANCRC-supported reports on existing collections, leading to 3 major publications and a new website in development. We also have several graduate students working with previously excavated material for their thesis and dissertation projects.**
- **Public Education and Heritage Tourism Opportunities.** Even after 50 years of effort by the Survey, many Arkansans still do not know that Arkansas possesses archeological sites recognized for their importance by professionals throughout the United States and around the world. **We are improving how we tell the stories of Arkansas history and prehistory through the “voice” of archeology.**
 - We are producing more **educational materials using archeological examples to provide STEM and STEAM learning exercises** for mathematics, language arts, and science topics. This year, **we developed a new 5th grade social sciences curriculum** “Gathering, Gardening, and Agriculture” that will be available for free to Arkansas educators on our website.

- **We want to write more Popular Series books** for the general public and develop the educational content of our website. **Currently we are working to create Popular Series volumes on the Toltec Mounds and Parkin sites, new books on general Arkansas prehistoric and historic archeology, and a small volume on riverine boat wreck sites.**
- Our ***Indians of Arkansas website*** is a significant educational resource for learning and teaching about archeology and anthropology in Arkansas and the South. A new website on ***Bluff Shelters in the Arkansas Ozarks*** was developed for the public this year.
- Arkansas has only a few archeology-themed parks where the public can visit interpreted archeological sites. **We are working with State Parks, the Forest Service, and the National Park Service to develop archeological heritage tourism.**
 - » For two years, **the annual Training Program sponsored jointly by the Survey and the Arkansas Archeological Society was held at the Richards Bridge site** near Earle, to investigate a Parkin phase village site that will contribute new information **for interpreting Parkin Archeological State Park.**
 - » We now have **three educational/experimental gardens** at different research stations exploring plant use in prehistoric and pioneer Arkansas—two of these are at state parks (Parkin and Toltec Mounds).
 - » We continued to provide archeological support for development at **Davidsonville, Historic Washington, and Prairie Grove Battlefield State Parks**, in addition to the regular programs of research at **Toltec Mounds and Parkin State Parks**, and new projects such as the **Plum Bayou Interpretive Garden at Toltec Mounds.**
 - » Archeologists from the Survey's coordinating office and UAF research station are conducting **investigations at Pea Ridge National Military Park in cooperation with the National Park Service Midwest Archeological Center.** New information about various parts of the battlefield landscape will aid interpretation at the Park. This is a federal Cooperative Ecosystem Studies Units (CESU) project. In addition, Carl Drexler (ARAS-SAU) has worked to **assist Civil War site preservationists in southwest Arkansas.**
 - » Jami Lockhart and John House, assisted by staff from the coordinating office and UAPB station, joined archeologists from the Midwest Archeological Center of the National Park Service to conduct **new investigations at sites in the Osotuooy Unit of Arkansas Post National Memorial.** This study, also conducted under the federal Cooperative Ecosystem Studies Units (CESU) program, will increase our understanding of the development of Quapaw culture in eastern Arkansas and their interactions with early French settlers.
- **Budget Constraints and Institutional Issues.** Survey employees earn significantly less than their comparably qualified colleagues at universities, federal agencies, and private Cultural Resource Management firms. This has made it difficult to recruit new station archeologists and to keep good station assistants.



Research Station Reports



Toltec Mounds Archeological State Park Research Station

Annual Training Program

The activities of the Toltec Mounds research station have been diverse this year, including collaborating with colleagues working overseas. As always, the year was bookended by the annual June Training Program jointly conducted by the Survey and the Arkansas Archeological Society (see the “Partners” chapter of this report). This year, we were back at the Richards Bridge site in northeast Arkansas, where Toltec Mounds station archeologist, Elizabeth Horton, along with ARAS-UAFS station archeologist, Tim Mulvihill, oversaw continued excavations of a complex structure that had been exposed by the previous summer’s Basic Excavation class participants. Other ARAS archeologists, Mary Beth Trubitt and John House, taught the Basic Excavation classes in the same area this year. A substantial portion of the structure was excavated, revealing a minimum of three episodes of building and rebuilding in roughly the same footprint, helping to confirm that it had likely been occupied for several generations longer than previously believed.

ARAS-TMRS staff and volunteers also worked on the Richards Bridge excavated material through the course of the year, helping to process over 200 pounds of clay daub (building material), reassembling two nearly intact vessels recovered in the burned rubble of Structure 1 in 2015 (UALR student volunteer Laura Fuentes helped with this), processing flotation samples, and helping to select radiocarbon samples.

The Plum Bayou Garden: Measuring the Success of Combined Research, Public Outreach, and Cultural Heritage Tourism

After the formal opening of the Plum Bayou Garden to the public last summer, one of the station’s most important activities this year has been careful management of the garden to ensure that young plants were established and healthy. We

also began garden-based research and educational programming. Elizabeth Horton, along with student volunteers, put in hundreds of hours of work in the garden, including “rescue missions” this spring when the garden was twice inundated with nearly one and a half feet of flood water.

In October 2015 Horton submitted the final grant report to the Arkansas Humanities Council, who provided over \$10,000 to support development of the garden. Initial visitation rate over the first four months (from July to October 2015) was approximately 2800 people. Tracked visitors spent 10–20 minutes in the garden. Although the station and state park staff are no longer gathering measured data, some interesting patterns of visitation have emerged over the course of the past 12 months.

First, the Plum Bayou Garden has become the “first impression” of the park for a substantial number of visitors, whose first act upon arrival—even before entering the Visitors Center—is to walk through the garden. This has a significant impact on the overall “take away” message that the public receives from the park. Second, some fall-through-winter visitors have inquired from park staff about “the best time to come back and see the garden,” which indicates that visitors are using the new interpretative space year round and planning return visits.

Finally, park staff have noted a behavior they refer to as “GO Visits” (Garden Only Visits). These are visitors who (1) come purposefully just to see the garden and/or (2) visitors who, during extreme weather conditions (especially summer heat) opt to walk the garden and visit the museum, but skip the longer walking tour of the mound site. In all, these behaviors indicate that the garden is working not just as an extra exhibit, but sometimes as the sole, or primary, context of interaction with the past for visitors, making it a valuable and crucial aspect of the overall park experience for the public at Toltec Mounds State Park.

The Toltec Mounds research station is located at Toltec Mounds Archeological State Park in Scott. The Toltec Mounds site is a National Historic Landmark. Survey staff carry out ongoing research at the site, providing the primary resources for development of interpretive programs at the park. The Toltec Mounds site was the religious, social, and political center for people of the Plum Bayou culture of central Arkansas. Built and occupied between AD 650 and 1050, it is one of the largest and most complex American Indian sites in the Mississippi Valley. Archeologists who visited the site more than 100 years ago found 16 mounds inside a 5298-foot-long ditch and earthen embankment. Though many of the mounds have been plowed down or mined for fill dirt, several remain visible today, along with remnants of the embankment. Most of the mounds were square, flat-topped earthen structures built by carrying basket-loads of dirt. Several of the mounds were arranged around an open plaza and aligned according to astronomical observations. The two largest were built in stages, and stand today at 39 and 49 feet high. The site had a small permanent population of religious and political leaders and their families, but most Plum Bayou people lived in scattered villages and hamlets in the surrounding countryside, only gathering at the site for religious and community activities. The Plum Bayou people grew a variety of native domesticated crops, harvested nuts, hunted, and fished.

Elizabeth Horton (Ph.D., Washington University in St. Louis, 2011) is the Survey's Research Station Archeologist for Toltec Mounds Archeological State Park, and Research Assistant Professor of Anthropology, University of Arkansas, Fayetteville. She came to the Survey in 2010 as a postdoctoral researcher at the coordinating office, and began the position at the Toltec Mounds research station in July 2011. Horton's doctoral research focused on Pre-Columbian fabric technology and plant fiber use in the Southeast, and Arkansas in particular, using assemblages from the University of Arkansas Museum Collections. Her specialization in paleoethnobotany brings much-needed skills to the Toltec station, where she is working to establish a paleoethnobotany lab that can serve the entire Survey organization.

Marilyn Whitlow has been the assistant at the Toltec Mounds station since 1985. She works with the station archeologist on many aspects of station management, including daily operations, research (field and lab), processing and cataloging artifacts, and outreach, including hosting lab days for volunteers.

One particular plant has become a focal point of engagement for some visitors' understanding of the past—the maypop (*Passiflora incarnata*). In the Plum Bayou Garden this normally unimpressive native vining wild fruit has become an enormous sprawling canopy of sweet smelling, beautiful flowers and a prodigious producer of fruit, drawing in hundreds of different native pollinators. The maypop, in addition to having been important to Native peoples, has a role in historic Euro-American and African-American foodways in the South, and a number of older visitors (assumed to be 50+ years of age) were both surprised to see it, and remarked to us on the ways in which they had experienced this plant as a late summer source of syrups and sweet drinks made by their mothers and grandmothers when they were children. Some individuals also recounted memories of the leaves of the plant being made into a medicinal tea. These visitor experiences are indicative of the unique ways in which the Plum Bayou Garden project can engage visitors. By calling on their own personal histories, people find unexpected connections with the modern and historic Native, Euro-American, and African-American communities.

Horton also promoted the Plum Bayou Garden by giving public talks around Arkansas and in neighboring states. Her presentation, titled “Arkansas’s First Farmers and Lost Crops,” emphasizes the role that Arkansas Indians played as the American Southeast became one of ten “Centers of Independent Domestication” in global prehistory. The talk has been given to a diverse set of public audiences, including some groups who had never before invited an archeologist, such as the Missouri Master Naturalists. Horton gave this talk to seven groups with a total audience of approximately 150 people during the year and continues to receive requests.

Ongoing Research and Program Development

In addition to working with park staff on public programming related to the Plum Bayou Garden, Horton also coordinated with area universities and colleges to provide presentations and workshops for students centered on the garden and on paleoethnobotany. Participants in two-day weekend workshops included archeology and botany students from the University of Arkansas Monticello; Odyssey students from Hendrix Col-



UAM botany students and faculty learning flotation during a weekend workshop.

lege, along with visiting students from the Tohono O'odham Nation; anthropology students from Pulaski Technical College; and anthropology students and recent graduates from the University of Arkansas Little Rock. Workshops include a range of activities, such as guided walking tours of the site, some discussion of the role of agencies like the Arkansas Archeological Survey in public education and site preservation, the role of Arkansas in prehistory as part of a Center of Independent Domestication, the role of the garden in research, and hands-on experience in ongoing, garden-based projects, paleoethnobotanical research projects, and flotation methods.

During the fall of 2015 student volunteer Laure Fuentes helped Horton harvest a variety of seeds and fruits from the Plum Bayou Garden for the comparative collection, for distribution to other researchers, and for use in the Toltec Mounds Archeological State Park's Native Food Day that November. Although the squash species grown in the garden is wild and therefore bitter-fleshed and inedible, the seeds—like all squash seeds—are both edible and highly nutritious. Horton roasted the seeds from 103 small wild squashes for use at the Native

Foods Day. She also processed 220 maypops into a sweet syrup (used on cornbread, and it was delicious), and cleaned, winnowed, and roasted a smaller sample of the sunflower seeds. Other seed crops, such as the sumpweed and little barley, still pose a challenge because we do not have enough evidence about how they were cleaned and processed. Ongoing experiments in harvesting, threshing, and winnowing may help provide models for this in the future that will allow us to serve unique dishes replicating the foodways of Arkansas Indians from over 2000 years ago.

Broadly speaking, the garden based research is focused on early pre-modern and pre-industrial agroecosystems in Eastern North America. We hope to shed more light on the methods by which low-level food producing societies may have effectively managed plant resources and mitigated loss due to pests and unfavorable weather conditions such as too much or too little rain. These kinds of studies not only provide context for better understanding the past, but also inform our understanding of modern small-scale (particularly organic) agricultural practices. One example is the "slash-and-burn" of the Plum Bayou Garden



Filming for the “Gathering, Gardening, and Agriculture” curriculum video series.

in November of 2015. In this project six students from the Odyssey program at Hendrix College, including their three visiting students from the Tohono O’odham Nation, assisted Horton in a final harvest of remaining seeds, then cut down and burned the waste vegetation. Because the garden is a mix of perennials and annuals, this required some careful planning and awareness of which perennial plants will withstand fire and which will not. It was also designed to determine which annual seeds would be negatively affected by fire—that is, would fail to germinate from seeds lost or dropped during harvest.

We found that in the super enriched soils of midden-fertilized gardens, burning the surface of the garden would have had an enormous benefit in controlling the reseeding of “weedy” species like sumpweed (*Iva annua*). By spring of 2016 sumpweed had overrun areas of the garden not subjected to burning, requiring hundreds of hours of hand weeding to tamp it down and keep it from crowding out other plants that would have been key economic resources for Indian gardeners. Burning also helped to keep endemic woody vine species like peppervine out of the garden.

This summer, the garden suffered from native squash beetles, but the indigenous squash being grown (*C. pepo* var. *ozarkana*) managed not only to survive, but to thrive, despite the extremely heavy load of pests. It was only when spotted squash beetles arrived that the plants suffered wilt and death due to pest infection. However, by this stage in the plants’ life cycle they had already produced hundreds of fruits. The spotted squash beetle is native to the southern United States, and can be a significant source of crop loss for contemporary producers. It would also have had a devastating impact on prehistoric farmers. By studying the potential agroecosystems of the first

farmers of Arkansas, who had no choice but to practice “organic” farming methods, the Plum Bayou Garden may help provide insights into how today’s small-scale gardeners can effectively use all available methods to control pests and mitigate risk. During fall 2016, we plan to test controlled burning as a method for diminishing the pest load of overwintering insects.

The Plum Bayou Garden has also already begun to fulfill another role, as a seed source for other paleoethnobotanical researchers and educational gardens. Horton provided seed to the Anthropology Department’s Ethnobotany Garden at Washington University in St. Louis, The Native American Garden at the Winthrop Rockefeller Institute (being created by ARAS-WRI, as a companion garden to the Plum Bayou Garden), and the late prehistoric interpretative garden at Parkin State Park, as well as to individual colleagues. She has also been contacted by staff at other archeological and cultural heritage parks outside of Arkansas to assist and consult in the creation of similar interpretative gardens. Finally as a recipient

of starter seed for native goosefoot, *Chenopodium berlandieri*, and native wild squash, *C. pepo* var. *ozarkana*, both of which have become difficult to find in the wild, from the USDA-ARS, US National Plant Germplasm System, the Plum Bayou Garden will also be in a position to contribute seed back to the seed bank in the fall of 2016.

Horton’s work and experience with the Plum Bayou Garden has become integrated into other ongoing projects including the development of a 5th grade social sciences curriculum, and consulting work with other cultural heritage institutions, including the Caddo Mounds State Historic Site in Texas, and the UNESCO World Heritage Land of Frankincense Museum in Salalah, Oman.

GGA Curriculum

Elizabeth Horton is one of four coauthors, along with ARAS-UAM archeologist Jodi Barnes, ARAS director George Sabo, and ARAS-WRI archeologist Emily Beahm, of an Arkansas State Standards fifth grade Social Sciences curriculum project entitled “Gathering, Gardening, and Agriculture” that has received funding from the Arkansas Humanities Council, the Southeastern Archaeological Conference, and the Arkansas Archeological Society. For more information on this project, see the “Highlights” section of this Annual Report.

The ArcheOlympics

This year, as a part of Arkansas Archeology Month in March, the ARAS-TMRS in collaboration with the Toltec Mounds State Park and the Department of Anthropology and Sociology at the University of Arkansas at Little Rock, held the 2nd Annual ArcheOlympics. The competition grew by leaps



Atlatl competitors at ArcheOlympics 2016.

and bounds, this year hosting approximately 26 undergraduate participants in six teams from five of the state's institutions of higher education: The University of Arkansas at Little Rock, Pulaski Technical College, the University of Central Arkansas, Hendrix College, and the University of Arkansas Fayetteville.

The competition featured games that tested students' knowledge of both archeological methods and prehistoric technologies and foodways, including the ever-popular atlatl competition in which contestants use a spear thrower, one of the key innovations in ancient weapons technology, to accurately hit a target with a spear. This year's overall winner was a team from the University of Central Arkansas, whose dedication to preparatory study in plant identification and spear throwing put them over the top. They took home the "gold" and will have the trophy on display in their department until next year's competition, when they will have to either win it back or hand it off to the 2017 winners.

Just as important as the learning and the fun of the games themselves has been ARAS-TMRS's role in fostering an annual meeting of diverse anthropology students from across the state. The creation of the games in 2015 helped to foster a renewed interest at several institutions in undergraduate departmental Anthropology Clubs, which led to the increased participation this year. It has also provided a venue for students to network

with each other, to meet and interact with their peers and with faculty from other institutions, and with archeologists from the Arkansas Archeological Survey. ARAS-TMRS looks forward to even bigger future ArcheOlympics and the chance to continue to provide a venue for these enthusiastic, motivated students to come together in their shared interests.

Facing the Challenges of 40 Years of Archeology at the Toltec Mounds Research Station.

In the latter half of the 2015–2016 year the Toltec Mounds station began what will be a multiyear project to intensively inventory and organize its collections and archives. This is a challenge that every ARAS station faces as we reach our 50th anniversary as an organization. Horton, with station assistant Marilyn Whitlow, as well as the staff of the ARAS registrar, has begun the process of assessing and re-inventorying the forty years (1976–2016) of collections and field and lab archives. This task is fundamental to our mission of preservation and will ensure that archive records are properly scanned and stored, and that the physical collections are updated to meet current curatorial standards.

In addition, these initial steps pave the way for developing robust databases of previous excavation and lab-based analysis that will benefit not only the archeologists of the Arkansas

Archeological Survey, but researchers around the nation looking for specific data on sites or topics. It also allows station archeologists to see the broad scale of research and collections at their stations and to develop new research projects specifically targeted at gaps in our knowledge about Arkansas history and prehistory. We are also reorganizing our collections to better use the limited space at the Toltec Mounds research station.

The ARAS-TMRS Social Media Outreach

This is the first year that we have begun to track statistics for our social media outreach. The station maintains a Facebook page. At this time, only Horton has been moderating and posting to the page, so posting frequency varies depending on other obligations. Despite this the Facebook page averages at least a post a day and can range from sharing news about archeological discoveries worldwide, updates on research by the TMRS and other stations, announcements about public talks, and this year in particular, updates and photos of the Plum Bayou Garden. The ARAS-TMRS Facebook page is wholly “organic” in Facebook parlance, as we have not paid for any advertising or post “boosts.”

Because the ARAS station archeologists largely run the research station Facebook pages, content tends to favor the diverse research interests of the individual archeologists. As such the TMRS Facebook page leans towards news, discoveries, and information about paleoethnobotany and the deep-time history of plant use. The unique perspectives of the other station archeologists allow stations to share each other’s posts and amplify public outreach efforts on a scale beyond their own specialties. It is interesting to note that among the TMRS posts, those on paleoethnobotany have the largest reach and engagement. This suggests the ARAS practice, where each station maintains its own Facebook page, allows the organization as a whole to reach a much broader set of audiences, some of whom may follow specific stations because their own interests match that of the station archeologist.

Our social media reach was substantial this year. The ARAS-TMRS page began the reporting year with 472 subscribers and ended the period with 675 subscribers. In the August 2015 to July 2016 reporting period we had total engagement of 7870 and an overall reach of 88,103. “Organic impressions” or the total number of times our posts were seen in “newsfeed, or tickers, or visits to the page” was 178,399 with 18,391 unique “clicks” to open and read a post.

We expect the number of subscribers to somewhat stabilize, as 600+ is already a substantial number for a local “special interest” Facebook page—especially as the Arkansas Archeological Survey, unlike most state based archeological organizations around the nation, has opted to allow each station to have its own page. However, we expect to see a continued, if not increased, level of engagement with the public via Facebook.

Lastly, but critically, the presence of many of our colleagues and organizations with similar outreach and education missions (such as the NPS Heritage Program, The Archaeological Con-



Elizabeth Horton in Oman, standing next to a south Arabian milkweed, a plant used for fiber.

servancy, The Florida Public Archeology Network), our host institutions (such as the University of Arkansas and Arkansas State Parks), as well as statewide agencies for natural and cultural resources (such as Preserve Arkansas, The Arkansas Natural Heritage Commission) and citizen-based organizations (like the Arkansas Archeological Society and The Arkansas Master Naturalists) mean that we are able to actively and publicly provide each other support, and increase our individual reach through each other in ways that are both easy and effective.

A Southeastern in Southern Arabia

For the last four years Elizabeth Horton has worked closely with her colleague Krista Lewis, Associate Professor at the University of Arkansas Little Rock, to provide UALR students with hands-on opportunities to learn about and experience archeological field and lab methods. Lewis’s research has, since 2012, been focused on the UNESCO World Heritage Site of Al Baleed, in Salalah, Oman. Because of the difficulty she had in obtaining field experience for her students, she and Horton teamed up to fill the gap in real world experience, encouraging students to become Arkansas Archeological Society members, participate in the annual AAS Training Program, volunteer on smaller projects, or on the various ARAS Spring and Fall Digs

that occur around the state, including the 2013 Spring Dig at Toltec, as well as create an ongoing partnership that allows Lewis to bring her Methods in Archaeology and Introduction to Archaeology classes out into the field to work under Horton's direction on a wide variety of survey and testing projects in Lonoke and Pulaski counties. This year, that partnership transitioned to include Lewis's ongoing work in Southern Arabia. In December and January, Horton travelled to Oman to work with Lewis and her students at the site of Al Baleed, a medieval port city that was a vital stop for the Indian Ocean Trade Route.

Horton assisted Lewis in training students, excavation strategy, and interpretation, and worked with Lewis on development of an ethnobotanical interpretative component at the Botanical Garden at the Land of Frankincense Museum. Oman's intensive focus on Cultural Heritage Tourism comes at a time when traditional skills, such as fiber processing and textile production, are increasingly in danger of being lost. Local commitment by the Land of Frankincense Museum to help support the continuation of these traditional skills has meant an increased interest in having an ethnobotanical garden that helps inform both international and local visitors about these

precious resources. The goal will be to add to the already well developed and successful focus on the key resource of Frankincense (for which the region is famous both today and in the past), and a better understanding of the ways in which other minor but critical plant resources played a role in the deep-time relationship between desert and coast, including the plants critical to craft traditions of basketry and fishing nets.

Finally, because export and import laws regarding cultural heritage resources often limit how much material culture can be brought back to the U.S. for analysis, Horton also has a role in ongoing work to help establish robust sampling strategies for macrobotanical remains from excavation, methods for processing these samples in the field lab, and establishing an on-site paleoethnobotanical lab that will enable preliminary analysis during the field season, and potentially open up an opportunity for graduate student participation in upcoming seasons. In addition, the Al Baleed project allowed Horton the opportunity to gain experience with new and developing digital technologies for excavation data collection, including the use of drone photography in mapping and excavation strategy, and use of paperless, digital device based recording of excavation and lab data.

Toltec Mounds Research Station — Academic & Service Activities

Teaching & Higher Ed

- **Teaching.** Horton contributed a guest lecture to the Introduction to Archaeology class at University of Arkansas Fayetteville during fall 2015 (50 students).
- **Degree Committees & Advising.** Horton served as an outside committee member for one doctoral student at Southern Illinois University–Carbondale and one graduate student at University of Arkansas Little Rock. She provided paleobotany degree advising for two students from Hendrix College.
- **UALR Anthropology Program.** Horton mentored UALR anthropology student, Laure Fuentes, in the station lab, and collaborated with UALR faculty member Krista Lewis to provide hands-on archeological experience from test excavation through analysis and report writing (8 students).

Paleoethnobotanical Laboratory

- **Student Training.** Horton conducted three weekend workshops on “Paleoethnobotany and the Plum Bayou Garden” with students and faculty attending from University of Arkansas Monticello, University of Arkansas Little Rock, Hendrix College, and Pulaski Technical College (20 students, 5 faculty).
- **Eastern Agricultural Complex Research.** Horton continued to collaborate with colleagues at institutions nationwide to create a research and data sharing network for experimental Eastern Agricultural Complex agroecosystems. The first event was a symposium for the Southeastern Archaeological Conference (SEAC) in late Fall of 2016, featuring researchers from Washington University in St. Louis, Ohio University, University of the South, Sewanee, University of South Carolina, and Arkansas Archeological Survey, among others. Other efforts include:
 - **The Plum Bayou Garden:** experimental work in ancient agroecosystems
 - **The Lost Crops Survey** (with PhD candidates N. Mueller and M. Spivey and Dr. Gayle Fritz from Washington State University in St. Louis): surveys of Arkansas National Heritage Commission lands to identify living populations of wild progenitors of locally domesticated southeastern seed crops
 - **The Asteraceae Project:** ongoing morphometric data collection on *Rudbeckia* ssp. and related species to assist identification of unknown asteraceae seeds in some Ozark bluff shelter collections; this research focuses on an under-represented role of fresh greens in indigenous southeastern crop cultivation and foodways

- **Textiles Research.** Horton continued activities related to the **Spiro Perishables Project** with a visit to the Sam Noble Museum of Oklahoma Natural History to look at Craig Mound textiles, and completed photography and preliminary artifact analysis of perishable artifacts in the donated **Waters Collection**.

Service to State Parks & Toltec Mounds Archeological State Park

- **Programs & Presentations.** Spring Equinox public presentation (audience 10).
- **Archeological Consultation and Testing.** Monitored construction sites of houses for full time park interpreters south of the park; consultation and monitoring of lakeshore erosion (Arkansas State Parks and USACE) and embankment erosion (Arkansas State Parks and Arkansas Natural History Commission); consultation with AHPP about impacts on the park.
- **Education & Park Development.** Consultation with park staff on seasonal displays and public programming.
- **State Parks.** Horton served as 2015–16 member of the Arkansas State Parks Cultural Resources Committee (Chairperson, Melissa Zabecki Harvey, Parkin State Park Interpreter II); set up an ARAS information booth for Arkansas State Parks annual interpreters' workshop.

Professional Service

- **Professional Organizations.** Horton served on the Arkansas Archeological Survey's Publications Committee; the Spiro Exhibit Planning Committee, formed to develop a large-scale exhibit on the Spiro Mounds Site at the Gilcrease Museum; and the SEAC Patty Jo Watson Award Committee. She provided peer review of works submitted to the journal *Southeastern Archaeology*.
- **Assistance at Other ARAS Research Projects.** Horton participated in fieldwork at the Manley-Usrey site (directed by UA doctoral student and ARAS graduate assistant Michelle Rathgaber); the Elkins' Ferry site (ARAS-SAU); the Thibault site (ARAS-UAPB); and the Menard-Hodges site (ARAS-UAPB and NPS).

Public Service & Outreach

- **Programs & Presentations.** Horton gave talks to Missouri Master Naturalists (audience 30), White County Historical Society (audience 15), Arkansas Master Naturalists (audience 40), and the Washington University in St. Louis WUFA Series (audience 40). She set up a booth on fiber and textile research at the ARAS coordinating office in Fayetteville on Celebrate Archeology Day during Archeology Month (about 100 visitors).
- **ArcheOlympics.** A day of outdoor games allowing visitors to try their hand at ancient technologies such as spear-throwers (atlatls), and other games testing archeological knowledge. The 2nd annual event was again coordinated by Horton and Krista Lewis of UALR as part of Arkansas Archeology Month (March 2016) and drew 26 participants plus onlookers.
- **Lab Days.** Research station staff hosted volunteer lab days for local Arkansas Archeological Society members and college/university students.
- **Media Outreach.** Horton administers a Facebook Page for the Toltec Mounds Research Station (www.facebook.com/ARASTMRS) which is used to disseminate information about activities and research in Arkansas by the Arkansas Archeological Survey and Arkansas Archeological Society, and also other public archeology entities throughout the Southeast. The page had 675 fans as of June 2016 with a cumulative "reach" in excess of 5000 during 2015–16.

Service to Arkansas Archeological Society

- **Chapter Presentations.** Horton gave public talks at the Ouachita Chapter in Hot Springs and the Central Arkansas River Valley Chapter in Morrilton (combined audiences 50).
- **Toltec Lecture Series.** There were eight lectures this year at the Witt Stephens Nature Center with an average attendance of 25–30. Horton recruits the speakers and makes arrangements for this public lecture series.
- **Training and Certification Program.** Horton helped to supervise excavations during the annual Training Program, held in NE Arkansas during 2016.

Volunteer Hours

- Volunteers contributed 439 hours to station research projects in the field and laboratory during 2015–2016.



Parkin Archeological State Park Research Station

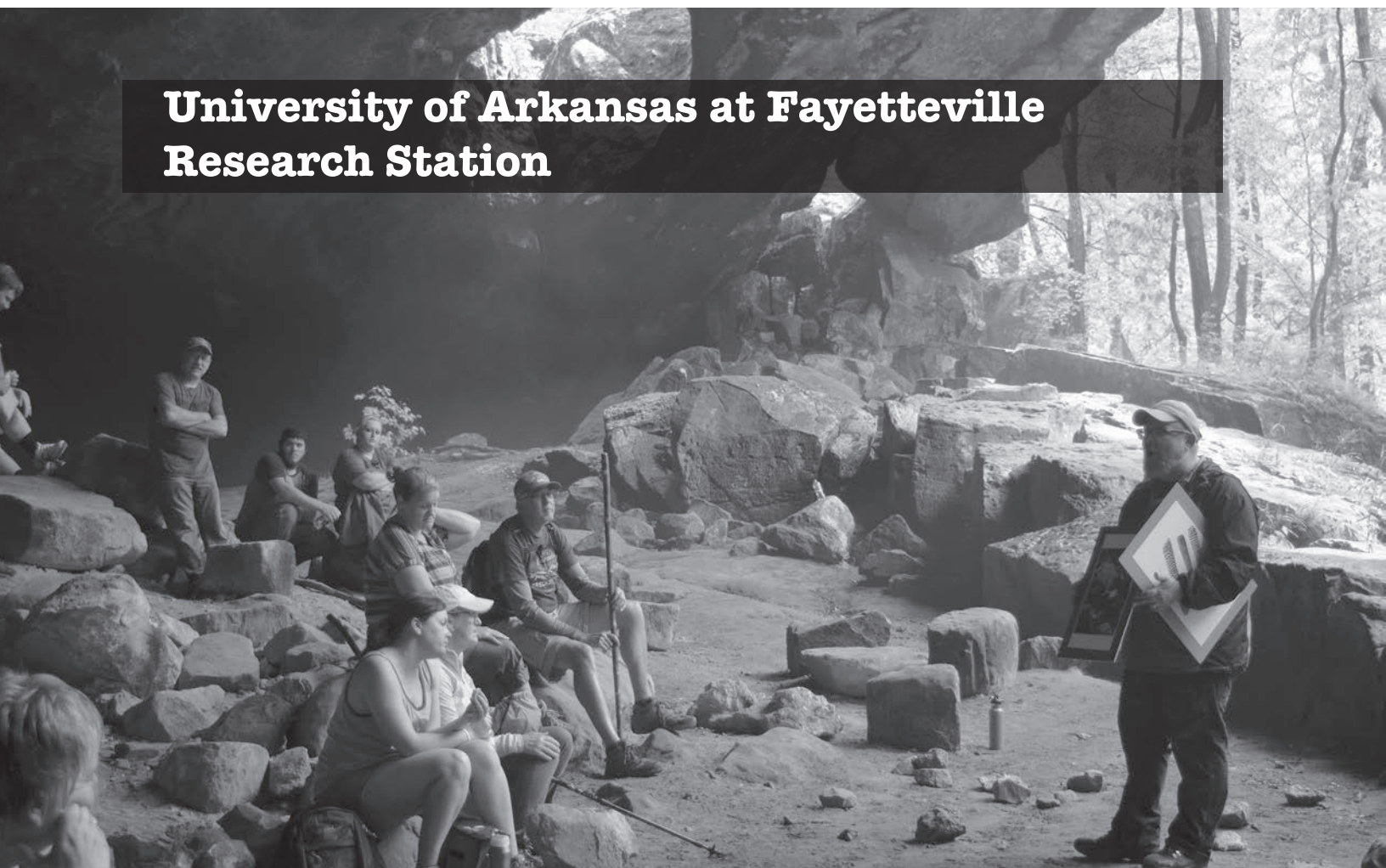
No Report was submitted by the Parkin Research Station for FY 2015–16. See pp. 20, 37–38, 72, the “Highlights” section, the SRP chapter, and the Partners in Preservation chapter of this Annual Report for brief summaries of some work involving the Parkin station.

The Parkin research station was established in 1990 at Parkin Archeological State Park in Cross County. The station's primary mission is to study the Parkin site and related sites in the region and to aid State Parks staff in interpreting and presenting this research to the general public. The Parkin site is a 17-acre Mississippian period American Indian village located on the banks of the St. Francis River, and lies entirely within park boundaries. It has a large flat-topped earthen mound surrounded by hundreds of buried house remnants, and was enclosed by a log palisade and moat. Excavations in the 1990s showed that the site was settled as early as A.D. 1000 and was occupied at least until 1541, when the expedition of Hernando de Soto passed through the area. Parkin is believed to be the Indian village of Casqui that was visited by the Spaniards and described in the four written accounts left by survivors and chroniclers of the expedition.

Jeffrey M. Mitchem (Ph.D., University of Florida, 1989) is the Survey's Research Station Archeologist for Parkin Archeological State Park, and Research Associate Professor of Anthropology, University of Arkansas–Fayetteville. He joined the Survey in 1990 to establish the Parkin research station, following appointments at Florida State University and Louisiana State University. His specializations include late prehistoric and early historic archeology of the Southeast and the Mississippi Valley, early Spanish contact sites in the New World, ceramic technology, glass bead studies, beads of Jordan and the Levant, Florida archeology, and the history of archeology in the Southeast. He is past President and Secretary-Treasurer of the Society of Bead Researchers.

E. Faye Futch earned an Associate of Arts degree in 2002 from Mid-South Community College and a B.A. in Interdisciplinary Studies with a Minor in African-American Studies from Arkansas State University in 2005. She joined the Survey staff in 1990. She helps process artifacts in the laboratory, greets visitors to the park and station, and is involved with the African American cemetery preservation initiative. Ms. Futch is working toward a Master's degree in History, with an emphasis in Public History, at Arkansas State University. She was promoted to Research Assistant in 2008, and now pursues local history research in northeast Arkansas.

University of Arkansas at Fayetteville Research Station



Bluff Shelters in the Arkansas Ozarks

Prehistoric occupations in Ozark bluff shelters are a unique and important resource—unique and important not only for Arkansas, but for the entire mid-continent. It is very rare that perishable remains like textiles, seeds, and basketry are preserved in archeological contexts, and our dry bluff shelters in Arkansas have more of these preserved items than most places in North America. Many of these artifacts sit on museum shelves as they have since they were excavated in the 1930s by the University of Arkansas Museum. At the same time, these precious sites, many considered sacred by Native American groups, are increasingly endangered by looting. Through new and continuing research projects, the UAF research station is working to document bluff shelters in the region, and to interpret existing bluff shelter collections to the public.

Digitizing UA Museum Bluff Shelter Records

Funded by the Arkansas Natural and Cultural Resources Council, the UAF research station staff, working with Lydia Rees of the ARAS Sponsored Research Program, implemented a project to digitize important early records from the 1930s

excavations in Ozark bluff shelters held by the University of Arkansas Museum Collections. The digitization project concluded this summer. The field records for work at over 80 Ozark bluff shelters (and various other Arkansas sites) have been scanned and are now stored on the Arkansas Archeological Survey's server as 600 dpi color Tagged Image File Format (TIFF) files—the curation standard for digital records. An index of the notebooks by site number has also been created and will accompany the digitized records. In addition to these files and their index, lower resolution versions of these scans will be divided by site number and placed in the digital site files housed in AMASDA, the official digital source for the state archeological site files. This will ensure that the records are available to researchers who are interested in bluff shelters as a class of site as well as researchers who access AMASDA for information about specific sites or geographic areas.

New Educational Website on Ozark Bluff Shelters

A second aspect of the ANCR grant sought to provide information to the public about bluff shelter sites. To do this the UAF research station staff—working with Lydia Rees, Eliza-

The UAF station is located at the Survey coordinating office in Fayetteville, with additional office space in the Anthropology Department on the UAF campus. The station archeologist teaches in the Department of Anthropology at UAF and performs other faculty service to the Department and campus. The UAF station territory covers 12 counties and lies almost entirely within the Ozark Mountain region of northwest Arkansas; only the extreme southwestern portion dips down into the Arkansas River Valley. The archeology of the Ozarks is justly known for the excellent preservation of organic material such as basketry, textiles, woven sandals, and plant food remains in dry rock shelters. Large collections of such remains, excavated in the past from sites now inundated by reservoirs, are housed in the UA Collection Facility awaiting modern analysis. Rock art, both painted and carved, is also found in some shelters. Station research in the last 30 years has broadened the archeological picture by focusing on ceremonial mound sites that link the Ozarks to the Mississippian and Caddo cultures. Other projects have emphasized historical sites left by pioneer Arkansans, Civil War related sites, and environmental history. The station's latest initiatives are a comprehensive study of prehistoric rock art, analysis of museum curated archeological collections from the Ozarks and central Arkansas River valley, and new studies exploring how artistic expression on decorated artifacts, such as the world-class ceramic collections from Carden Bottoms in central Arkansas, reflect social boundaries and social interaction.

Jamie C. Brandon (Ph.D., University of Texas at Austin, 2004) was the Survey's Research Station Archeologist at SAU/Magnolia for nine years before moving to the UAF station beginning with the Fall 2014 semester. He is also Research Associate Professor of Anthropology, University of Arkansas–Fayetteville and now teaches on the UAF campus. He has over 25 years of experience in the field of archeology, working at all stages of investigation and on sites dating from the Pleistocene to the twentieth century. He has been involved with projects in 13 southeastern states, and has authored or co-authored publications and/or technical reports on research in seven of those states. Dr. Brandon has worked with the Arkansas Archeological Survey in various capacities since 1997. His research interests include historical archeology of the 19th century South, prehistoric and protohistoric cultures of the Midsouth and Arkansas Ozarks, cultural and historical memory, and working with descendant communities.

Jerry E. Hilliard (M.A., University of Arkansas, 1980) moved to the position of Research Associate for the UAF station in 1994 after 15 years with the Survey doing public archeology, records management (he is a former Survey registrar), and research on prehistoric and historic sites in the Ozarks. His specializations include American Indian rock art and historic archeology in northwest Arkansas, especially Civil War related sites, and Fayetteville area sites. He also works closely with local volunteers from the Ko-ko-qi Chapter of the Arkansas Archeological Society.

beth Horton, Jared Pebworth, and Michael Evans—designed and created a website, “Bluff Shelters of the Arkansas Ozarks.” Visitors to the site can read summaries of existing bluff shelter research in a visually appealing and approachable format. It was built in WordPress, a website creation and content management software that is easy to use, as a stand-alone site linked to the Arkansas Archeological Survey's main homepage.

The public website has a simple design and is organized around a series of questions we are frequently asked at public lectures and other events. The site is designed to give the person on the street a brief overview of the importance of this kind of archeological site and the information that archeologists can gather from bluff shelter data. We chose to aim the site at an audience that we assume had no prior experience with archeology. The idea was that the site would be accessible to anyone, including students doing research for school projects. To this end we also have included a glossary of terms needed to understand some of the more technical aspects and terminology. We

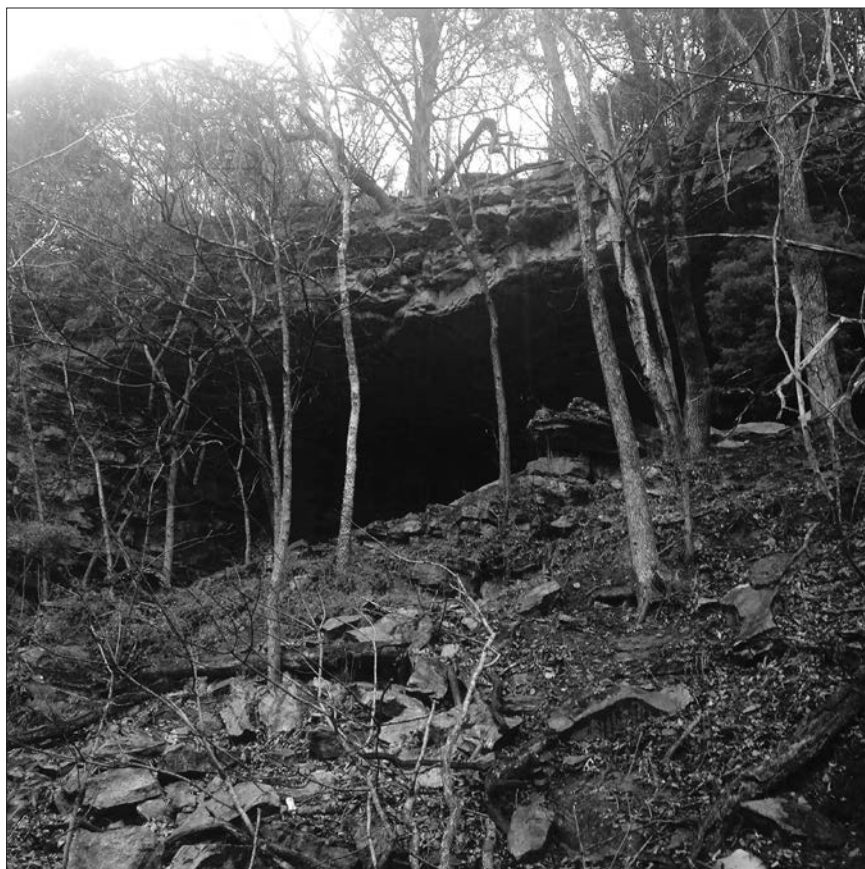
worked to make the site picture-heavy and to be conservative with the text, while still providing plenty of information and examples.

The site went live early in the fall of 2016 and will continue to be a platform for updating the public about ongoing bluff shelter research and events. Visit “Bluff Shelters of the Arkansas Ozarks” at <http://archeology.uark.edu/ozarkbluffshelters/>.

Breckenridge Shelter

We are excited that our recent excavations at Breckenridge Shelter (3CR2) have yielded the first direct date associated with a Breckenridge Dalton projectile point—a date that has placed the point between ca. 9765 and 9555 years old. The Breckenridge Dalton is an important early point type related to the Dalton culture and the transition from Paleoindian to Early Archaic. This is also the earliest radiocarbon date for human occupation thus far obtained in the state of Arkansas.

This date was obtained from work we conducted in 2012 in



collaboration with Dr. Marvin Kay of the University of Arkansas Anthropology Department. A suite of three AMS radiocarbon dates have been obtained for Breckenridge Shelter. All three charcoal samples were collected from a hearth that rested on shale bedrock discovered during excavations in 2012. The work re-opened two of Ray Wood's 1962 two-meter excavation units at the site. The purpose of this investigation was to analyze the stratigraphy using modern mapping technologies, photographic techniques, and scientific methods not available at the time of the 1962 excavations. At the end of the investigation a balk about 1.8m x 1.3m in plan and 2m in depth was carefully removed between the two old excavation units. In situ deposits capped by episodes of roof fall were discovered during this process. At the bottom stratum, sealed by thick limestone roof fall, were ash deposits with stone tool debris, shell, and faunal material. Significantly, the complete Breckenridge point made from Pierson chert was found lying on top of shale bedrock in this same deposit. The C14 sample was obtained from an associated hearth. The date was made possible by a grant from the Archeological Research Fund of the Arkansas Archeological Society. Jerry Hilliard, along with Jared Pebworth, Michael Evans, and Aden Jenkins, published articles about this discovery in *Field Notes: Newsletter of the Arkansas Archeological Society* Nos. 385 and 388.

Snowball Cave, a site in Searcy County that has been destroyed by looting. The new Bluff Shelter website informs about the importance of conserving these sites.

Saltpeper Cave

The UAF research station is gearing up to undertake a new bluff shelter research project in 2016–2017—the analysis and interpretation of excavations at Saltpeper Cave (3NW29) in Newton County. The Arkansas Archeological Survey conducted these excavations in 1969 and 1970. Ken Cole, the first research station archeologist at Arkansas Tech (then Arkansas Polytechnic College) conducted two seasons of excavation at this shelter, that had been previously visited by the University of Arkansas Museum in 1934. Cole excavated nine test units, the deepest of which contained almost 14 feet (4.11m) of archeological deposits representing at least 9000 years of Arkansas history. This deep, stratified

deposit is all the more important to researchers as it is one of the few Arkansas bluff shelters investigated using modern excavation techniques. Thus, unlike the materials from the Dellinger excavations of the 1930s, researchers have detailed stratigraphic records, along with approximately 450 diagnostic hafted bifaces, and 42 radiocarbon samples. Unfortunately, Cole left the Arkansas Archeological Survey shortly following these excavations, leaving this collection curated, but largely untouched for 47 years. Next year ARAS-UAF staff, with the assistance of Jared Pebworth and Lydia Rees, will undertake the rehabilitation of this important collection as well as selected artifact analysis and dating.

Civil War Archeology in Northwest Arkansas

The UAF research station has a long-term interest in Civil War-era archeology in northwest Arkansas. This year we continued our ongoing relationship with Prairie Grove Battlefield State Park, and started a new relationship with Pea Ridge National Military Park. These historic sites represent the two major Civil War battlefields in northwest Arkansas.

Pea Ridge National Military Park: This year the UAF research station (in conjunction with the ARAS Computer Services Program and Sponsored Research Program) began a multiyear research effort on the Pea Ridge battlefield. This



Jamie Brandon and volunteers working at Ruddick's Field, Pea Ridge National Military Park.

project is a collaborative effort with the National Park Service and is part of the federal Cooperative Ecosystem Studies Units (CESU) program. The first phase of this effort was a pilot project that tested a methodology that combines large-scale remote sensing with traditional battlefield archeology techniques to gain a picture of the cultural resources on the battlefield at the landscape level. Our 2015–2016 work concentrated on mapping, magnetometer survey, and metal detection ground-truthing of 27 acres of open area comprising Ruddick's Field—an important location in the battle at Pea Ridge. The mapping and remote sensing took place in November and December of 2015, generating a map of potential magnetic anomalies to compare to the results of the traditional battlefield metal detector survey. That metal detection effort was mounted in March of 2016 and included over 50 volunteers and staff and almost 800 volunteer hours. The results were the recovery of almost 530 Civil War related artifacts and as many artifacts related to post-bellum farming activities. The precise locational data recorded for each recovered artifact, along with the magnetometer data, will allow us to better understand troop movements during the battle through the distributions of artifacts across the landscape.

In the next phase of this project, our focus will shift to the Leetown hamlet. Leetown was a hamlet on the western edge of the battlefield during the Civil War, but the town faded away before the turn of the twentieth century. A limited amount of archeology was conducted at the hamlet in the 1960s as a part of the initial National Park Service assessment, and twelve years ago an MA thesis attempted to explore the site with a combination of aerial and ground-based remote sensing techniques. Our work at Leetown will attempt to use remote sensing to identify as many historic structures as possible, and to assess their dating and function using targeted test excavations.

Prairie Grove Battlefield State Park: In addition to the work at Pea Ridge, the UAF station also continued its ongoing relationship with Prairie Grove Battlefield State Park. In January the UAF staff conducted a gratis investigation of the area surrounding a small pavilion (Jim Parks Shelter) prior to major renovations. This small project came on the heels of a series of larger projects done in cooperation with the park, including geophysical and archeological investigations of the site of new rest room facilities on the battlefield completed last year that recovered information about troop movements.

Carden Bottoms (CARV)

Carden Bottoms is a rich alluvial floodplain in northeastern Yell County created by the Arkansas River and internationally known for its rich archeological heritage. In past years the UAF research station has been involved in a long-term, NEH-funded research effort in Carden Bottoms and the Central Arkansas River Valley (CARV). That work is now drawing to a close. This year Jerry Hilliard continued to work on the CARV material, conducting inventory and analysis of the 1990–1994 and 2009–2012 excavations. In total, Hilliard has inventoried approximately 176,264 artifacts from the Carden Bottoms investigations.

Cataloging and Rehabilitating Collections

With the assistance of our volunteers, ARAS-UAF research station staff have continued to rehabilitate and inventory the

station collections as well as process and research new collections donated to the Arkansas Archeological Survey, including collections from Newton and Searcy Counties recently transferred to the UAF research station from ARAS-WRI. This is an important part of the work we do here, as it ensures that these collections, and the data they represent, will be preserved for future researchers.

Tom's Brook Culture and the Charles Bartlett Collection: Jerry Hilliard has also continued to direct a number of volunteers in processing the Charles Bartlett Collection. Donated in 2011, the Bartlett Collection includes hundreds of artifacts from sites Charles Bartlett visited in the 1960s, including artifacts from the important Tom's Brook site (3JO1). Tom's Brook was instrumental in the formulation of the Tom's Brook Phase and Culture by Frank Schambach as well as the construction of the Tom's Brook Complex by Don Wyckoff.

UAF Research Station — Academic & Service Activities

Grants, Honors & Awards

- The Arkansas Civil War Sesquicentennial Commission, Jamie Brandon, Vice-Chairman, received the 2016 Henry Award for Arkansas Heritage, given by the Arkansas Tourism Industry
- The Arkansas Civil War Sesquicentennial Commission, Jamie Brandon, Vice-Chairman, received the 2015 award for Outstanding Achievement in Preservation Education Statewide, given by Preserve Arkansas

Teaching & Higher Ed

- **UAF Anthropology Department.** Brandon taught ANTH 3203, Approaches to Archeology (18 students) and ANTH 5203, Method and Theory in Archeology (5 students) during the 2015–16 academic year.
 - » Brandon currently serves on seven UA graduate student committees: four M.A. and three Ph.D.; six are in the Anthropology Department and one is in the Environmental Dynamics Program; of these he chairs three anthropology M.A. committees
 - » Brandon assisted with tours of the Arkansas Archeological Survey for students enrolled in ANTH 1033, Introduction to Archeology, and ANTH 4903, Pots and People Seminar
 - » Brandon provided a guest lecture to ANTH 4603, Landscape Archeology
- **Other Institutions.** Brandon and Hilliard supervised an internship in archeology in conjunction with Missouri State University.

Professional Service

- Brandon served as President of Preserve Arkansas; Vice-Chairman of the Arkansas Civil War Sesquicentennial Commission (dissolved in December 2015 following the conclusion of the sesquicentennial celebration); member of the Arkansas Humanities Council Board; Society for Historical Archaeology Editorial Board; Chair of the State Review Board for Historic Preservation.
- Hilliard and Brandon both served on the ARAS Publications Committee; Brandon was Chair of the committee.
- Brandon served on the ARAS Personnel Committees and the ARAS Web Steering Committee.
- Brandon served as a judge for the Arkansas Historic Places Film Prize.

Public Service & Outreach

- **Presentations & Programs.** Brandon gave public talks to the Friends of Elkins' Ferry in Prescott (audience 20), the Highlands Chapter of the Ozark Society (audience 25), the Rotary Club of Fayetteville (audience 75), the Northside Fayetteville Rotary Club (audience 50), the Searcy County Historical Society in Marshall (audience 60), and as part of Preserve Arkansas's "Behind the Big House" program at Historic Washington State Park (audience 35). Brandon and Lydia

Rees gave a talk and assisted with a guided hike at Buffalo National River (audience 40). Brandon served as Master of Ceremonies at the final Arkansas Civil War Sesquicentennial event, a seminar on the legacies of the Civil War in Arkansas (audience 55).

- **Osher Lifelong Learning.** Brandon taught two classes for the Osher Lifelong Learning Institute (OLLI) at the University of Arkansas Global Campus: “Saving Arkansas’s Past” (20 students) and “Archeology of Historic Washington State Park” (25 students).
- **Tours & Workshops.** Brandon taught two workshops on historical archeology and historic material culture as part of the Ouachita National Forest Service HRT training program (60 participants); Brandon led tours of northwest Arkansas Civil War sites for members of the Arkansas Humanities Council (10 participants) and of Historic Washington State Park as part of a Preserve Arkansas program called “Behind the Big House” (35 participants).
- **Public Schools.** Hilliard gave a presentation on archeology at Alma High School during STEM Career Day (150 students).
- **The Archeology Minute on KUAF.** For the second year in a row, Brandon (with Marilyn Knapp) wrote and recorded a series of radio spots called “The Archeology Minute.” They were broadcast on KUAF, the University of Arkansas’s NPR affiliate, every Saturday and Sunday during Archeology Month (March 2016), reaching a potential audience of 600,000 in a 14-county area of west and northwest Arkansas, parts of eastern Oklahoma, and southern Missouri. The recordings are archived at <http://kuaf.com/post/community-spotlight-archeology-month-segment-12> and <http://kuaf.com/post/community-spotlight-archeology-month-segment-34>.
- **Cedar Grove MAPP Project.** Brandon, Marilyn Knapp, and Lydia Rees worked on a short documentary film about the Cedar Grove Cemetery project which was conducted in Lafayette County in the early 1980s. This documentary is a contribution to the Making Archeology Public Project (MAPP), a nationwide video series honoring the 50th anniversary of the National Historic Preservation Act.
- **Archeology Day.** Brandon and Hilliard participated in the 3rd annual Celebrate Archeology Day! sponsored by the ARAS coordinating office in Fayetteville. This Archeology Month event took place at the Survey building and grounds, with displays, exhibits, demonstrations, and games, as well as donations from local businesses Mojo’s Pints and Pies and Harps Groceries. Over 100 people attended the event, which was covered by local media.
- **Other Public Outreach.** Brandon served as Vice-Chair of the City of Fayetteville’s Woolsey Farmstead Steering Committee. Both Hilliard and Brandon answered numerous calls and/or visited with members of the public who came to the station to discuss artifacts or sites, and visited sites upon request.
- **Consultations.** The UAF station staff provided consultation and advice regarding various archeological projects and concerns to the Rogers Historical Museum, St. Paul’s Episcopal Church in Fayetteville, the City of Fayetteville, the Center for Advanced Spatial Technologies (CAST) at the University of Arkansas, Historic Washington State Park, Pea Ridge National Military Park, the National Park Service, Prairie Grove Battlefield State Park, and the Ozark-St. Francis National Forest.

Service to the Arkansas Archeological Society

- **Chapter Presentations.** Brandon gave talks to the Ko-ko-çi Chapter in Fayetteville (audience 25) and the Ark-Homa Chapter in Fort Smith (audience 5). Hilliard gave a talk to the Ouachita Chapter in Hot Springs (audience 30).
- **Training & Certification Program.** Brandon taught the Ceramics Seminar during the Training Program in northeast Arkansas, and assisted with supervision of the Basic Excavation Seminar.
- **Spring Break Fieldwork.** Brandon and Hilliard directed a metal detector survey at Pea Ridge National Military Park during March (Archeology Month); 53 volunteers participated.
- **Ko-ko-çi Chapter.** Brandon assisted with scheduling speakers for the monthly meetings. Hilliard supervised volunteers in lab activities with the Bartlett Collection and miscellaneous UAF station collections.

Volunteer Hours

- Volunteers (Society members, UAF anthropology graduate students, and others) contributed 340 hours to station projects in the laboratory and 784 hours in fieldwork, for a total of 1124 volunteer hours during 2015–2016.

University of Arkansas - Fort Smith Research Station

Willhaf House Geophysical

During May of 2016, an archeogeophysical survey was conducted on portions of the property once owned by Leonard Willhaf (ca. 1840 to 1860) and acquired by the University of Arkansas - Fort Smith in 2015. The survey will aid in the development of a master plan for the property and as part of the overall archeological investigations of the site. The Willhaf House, located in Van Buren, Arkansas, is just south of the Drennen-Scott Historic Site, another historic property owned by UAFS, which opened as a museum and teaching laboratory in 2011. The historic part of the Willhaf House will serve as additional exhibit space, while the modern addition on the back of the historic structure will eventually be the new offices and lab of the UAFS research station of the Arkansas Archeological Survey.

Willhaf, who owned the first bakery in Van Buren, initially built a two-room structure ca. 1840, and various additions and outbuildings were added in later years. The lot for this house was located on the northeast corner of Columbus (now N. Second Street) and Lafayette streets. The lot is approximately 60 meters (196 feet) by 38 meters (124 feet). Jami Lockhart, Director of Archeogeophysical Research for the Arkansas Archeological Survey, led a team from the Survey during the archeogeophysical aspect of the project, which was completed over a three-day period. Other members of the team included Survey archeologists Mike Evans, Jared Pebworth, and UAFS station archeologist Tim Mulvihill. Prior to the geophysical survey, a metric coordinate grid system was established by Mulvihill for the entire site using a Topcon IS robotic Total Station.

The survey was limited to two geophysical technologies, electrical resistance and ground penetrating radar, due to the presence of large quantities of metal on the property. The most

interesting anomaly discovered during the survey was found between the house and garage. It was identified by both technologies and at both resolutions of the electrical resistance. It was at least two meters in size and the ground penetrating radar indicated it could be as deep as 2.5–3m. Probing in this area indicated a line of brick just below the grass on the west side and probing of the interior indicated a hard surface or stratum at a consistent depth, approximately 40–50cm below surface. It is possible that this is a cistern or well that was backfilled when no longer in use. Excavation will eventually be used to determine the exact size and purpose of this feature. Artifacts within the fill (if they exist) may help determine when the feature was backfilled.

There are other more subtle anomalies in areas where other outbuildings once stood along the eastern edge of the property, according to historic maps. These anomalies may indicate the extent of some of these structures. Again, excavation may be able to provide clues, in the form of artifacts or buried features, to the purpose of some of these buildings. This would be dependent on how much disturbance has taken place since the buildings were removed.

Drennen-Scott Historic Site

The work at the Drennen-Scott Historic Site has been a long-term project that was initiated in 2006. Each year students enrolled in the Introduction to Archaeology class at UAFS participate in archeological excavations at the site. We have slowly been rediscovering information about the outbuildings that once stood in the backyard and the activities that took place around these buildings. Again in the fall of 2015, 14 students helped to conduct research at the site. However, most of the work this past year has involved processing the excavated

The UAFS research station was established in 2005 at the request of the University of Arkansas - Fort Smith campus. The University purchased the Drennen-Scott House, 1838 home of the City of Van Buren founder, businessman, and Indian Agent John Drennen, with plans to use the property as a museum and training center for their Historical Interpretation degree program. The station's responsibilities include archeological investigations at the Drennen-Scott House and other assistance to the program at UAFS, working with the Ark-Homa Chapter of the Arkansas Archeological Society and other outreach activities in the Fort Smith area, and archeological research in the Arkansas River Valley between Fort Smith and Clarksville in cooperation with the UAF and WRI stations.

Timothy S. Mulvihill (M.A., University of Arkansas, 1996) joined the Survey in 1989 as station assistant at ASU, then moved to the Parkin research station, where he was station assistant from 1991–2005. In late spring of 2005, Mulvihill moved to Fort Smith to establish the new UAFS research station. His interests include Woodland and Mississippian period archeology, site survey methodologies, and mapping.

Anna Vincent (part-time lab assistant, October 2015–June 2016) is a student at UAFS majoring in History.

artifacts from the last several years. This work includes cleaning, sorting, numbering and analysis of the artifacts. Much of the cleaning and numbering has been done by Anna Vincent, a UAFS history major who works part time at the UAFS research station. The Ark-Homa Chapter of the Arkansas Archeological Society also sponsors a “lab night” each month, where volunteers clean the artifacts from Drennen-Scott and other excavation projects undertaken by the station.

Richards Bridge Project

Mulvihill, along with Jeffrey Mitchem (ARAS-PAR) and Jami Lockhart, co-directed the annual Training Program (sponsored jointly by the Arkansas Archeological Society and the Arkansas Archeological Survey) at the Richards Bridge site (3CT11/22). It was the second year to conduct the Training Program at this Parkin phase Native American village site in northeastern Arkansas. The study began with a geophysical survey of the site using gradiometry, an instrument used to measure magnetic differences in the soil. Many anomalies, which were thought to be prehistoric houses, were identified. Other geophysical technologies



Jami Lockhart collecting resistivity data at the Willhaf House in Van Buren.

were used to further define some of the anomalies. During the first Society/Survey Training Program at the site in 2015, excavations were conducted over four of the anomalies. Excavations continued over two of those anomalies in 2016. The excavations showed that the anomalies were indeed prehistoric houses or structures, and that the site was occupied over a long period of time. Mulvihill reestablished the grid, helped manage the



Mike Evans, Tim Mulvihill, and Jared Pebworth present a flintknapping demonstration at the Janet Huckabee Arkansas River Valley Nature Center.

preparations and set-up for the excavations, helped to supervise, and along with Survey Director George Sabo, conducted the total station mapping during the Training Program. (More information on this project can be found elsewhere in this Annual Report).

Parkin and the Possible de Soto Cross

In April of 2016, Mulvihill, along with Jeffrey Mitchem and Jami Lockhart, served as co-directors of a project to relocate a charred wooden post, speculated to be the remnants of a cross erected by the Hernando de Soto Expedition in 1541. This project was funded by a grant from the Elfrieda Frank Foundation. The charred post was originally discovered on top of the large mound at the Parkin site during a 1966 University of Arkansas Museum archeological field school. At that time, the large post was exposed and a large sample of the charred wood was removed, but some of the post was also left in place and reburied. The sample from 1966 was later radiocarbon dated by Mitchem in 1996. The resulting date did include within its range the year 1541, but the date range was too wide to prove anything conclusive. This year Mulvihill was able to reestablish the grid used in 1966, and set up excavation units on top of the mound in the location of the original find. The excavations came down upon the charred post which had been covered in visqueen or plastic sheeting before it had been reburied in 1966. The goal for this project was to have the remaining charred wood examined and, if possible, tree-ring dated by dendrochronologist David Stahl

of the University of Arkansas Tree-Ring Laboratory. Samples would also be obtained for further radiocarbon dating. The charred remains were removed in-block, but unfortunately the 57 preserved tree rings could not be matched up with any previously dated sequences. The radiocarbon samples were submitted for dating and the results (as of this writing) are pending.

Other Projects

Toltec Mounds Mapping. For some time now, Mulvihill has been working on a new digital map of the Toltec Mounds site. He continued this work during the week of January 27, 2016. The Toltec site is just over 100 acres in size and originally had at least 18 mounds. The mapping is being completed with a Topcon Imaging Station and transects are spaced at least every 5 meters. Mulvihill has now completed mapping of all the open areas on the site. The park has plans to clear the brush and vegetation along the edge of Mound Pond (an oxbow lake). Once that is done, Mulvihill will be able to map that area.

Spiro Landscape Archeological Project. Mulvihill participated in a week of mapping and geophysical survey along with other ARAS staff and archeologists from the Oklahoma Archeological Survey and University of Oklahoma. The work concentrated on areas near the Visitor's Center. A new detailed topographic map of the current condition of Brown Mound was completed.

Cavanaugh Mound (3SB3). Mulvihill continued monitoring erosion on the east side of the mound, which is owned

by the Archaeological Conservancy. He also mapped and recovered part of the historic burial that was eroding from the mound and completed a 3D scan of the east face of the mound.

Blaylock Cemetery. Mulvihill conducted a resistivity survey of the Blaylock Cemetery on the south side of Greenwood, Arkansas to look for unmarked graves. Unfortunately, the results of the survey were inconclusive due to the sandy soil present on the site.

Peevyhouse Cemetery. Mulvihill was contacted by the owners of the Peevyhouse Cemetery on the outskirts of Van

Buren, Arkansas. This is one of the area's earliest cemeteries and contains many of the graves of early settlers in Crawford County. The family is working to clean up the cemetery and provide continued maintenance, and asked for assistance in mapping the cemetery, which Mulvihill has begun.

Other Projects. Mulvihill assisted Oklahoma archeologists with a one-day mapping and geophysical project. Work also continued on processing and analyzing artifacts from various sites, including Drennen-Scott (3CW1050), McClure (3CW34), and Pruitt (3LO769).

UAFS Research Station — Academic & Service Activities

Teaching & Higher Ed

- Mulvihill taught ANTH 2203, Introduction to Archaeology (14 students) during Fall 2015 and ANTH 490V, Special Topics Archaeological Fieldwork (1 student) during Summer I 2016 at UAFS.
- Mulvihill's ongoing archeological research at the Drennen-Scott Historic Site and the Willhaf House serve the UAFS campus and its Historic Interpretation degree program.

Professional Service

- **Archaeological Conservancy.** Mulvihill continued to monitor erosion at the Cavanaugh Mound in Sebastian County, owned by the Conservancy. (See banner photo at the beginning of the UAFS section in this Report.)

Public Service & Outreach

- **Programs & Presentations.** Mulvihill (along with ARAS colleagues Jared Pebworth, Mike Evans, and Jamie Brandon) gave a public presentation on flintknapping at the Janet Huckabee Arkansas River Valley Nature Center (audience 87).
- **Public Schools.** Mulvihill gave a presentation on Arkansas prehistory to six 7th grade history classes at Kimmons Junior High School in Fort Smith (114 students & teachers).
- **Public Interaction.** Mulvihill provided artifact identifications for 21 people and visited three sites in response to public request throughout the year. Total contacts with the public and other professionals by phone, email, or in person numbered 283.
- **Media Outreach.** Mulvihill administered a Facebook Page for the ARAS-UAFS research station.

Service to the Arkansas Archeological Society

- **Chapter Presentations.** Mulvihill gave a talk to the Ark-Homa Chapter in Fort Smith (audience 8).
- **Training & Certification Program.** Mulvihill co-directed the 2016 Training Program in northeast Arkansas and helped with set up and excavations throughout the session (94 participants).
- **Ark-Homa Chapter.** The station advises and supports the Ark-Homa Chapter of the Society serving the Fort Smith area. Mulvihill makes arrangements for guest speakers and provides information to UAFS for press releases. He served as Chapter treasurer during 2015–2016. The station hosts monthly lab sessions for Chapter members, and provides fieldwork opportunities for volunteers.

Volunteer Hours

- Volunteers contributed 86 hours to station research projects in the field and laboratory during 2015–2016.



Winthrop Rockefeller Institute Research Station, Morrilton

Petit Jean Rock Shelter Research

Petit Jean Mountain has an amazing amount of prehistoric rock art. Researchers have long been intrigued with this art and have worked hard to interpret the meaning of the symbols depicted and the stylistic relationships with pottery made in the Arkansas River Valley. There are relatively few rock shelter sites without rock art, and we know little about how these sites were used by prehistoric people except as canvasses for their art. Rather than focus on the rock art itself, the Petit Jean rock shelter research conducted by the WRI research station aims to explore the use and occupation of Petit Jean's rock shelters (both with and without recorded rock art) and in doing so, hopefully will shed some light on the people who created Petit Jean Mountain's incredible rock art.

The overarching research question for this study is: What was the nature of the occupation of rock shelters on Petit Jean Mountain? Typically rock shelters with evidence of human occupation were used by mobile groups of people and/or as specialized short-term use sites, but generally not for continuous, year-round occupation. In order to understand the use of Petit Jean rock shelters, we need to first ask smaller-scale questions about when these shelters were used, how long, for what, and by whom.

One basic question to ask is when were people using rock shelters on Petit Jean Mountain? It is difficult to date rock art itself, and use of these rock shelters does not necessarily indicate that is when the rock art was created. However, finding strong similarity between the painted designs on ceramics at Petit Jean rock shelter sites and the rock art on the rock shelters would be one way to make a strong argument for assigning a date for the rock art. We are interested in not only when the rock art was created, but also when the rock shelters were used (which may or may not correspond in time). Dating the use of the rock shelter will be done through the examination of diagnostic material—ceramics, projectile points, farming implements, and seed types. Carbon samples will also be collected for future radiocarbon dating.

Another question is how long were these rock shelters occupied? Were rock shelters used for long-term or just short-term occupation? Is there evidence of structural features in these rock shelters that might suggest long-term use? Were people coming back to these shelters year after year? Do we see evidence of seasonality in the occupation or use of these shelters? Does this have any relevance to what is depicted in the rock art?

We also want to look at what kind of activities were taking place in these rock shelters. What were prehistoric people us-

The WRI research station is located on the campus of the Winthrop Rockefeller Institute on Petit Jean Mountain. The Institute was established in 2005 as an educational and conference center of the University of Arkansas System. “The Rockefeller Institute’s mission is to develop diverse programs that nurture ideas, policies and activities to make life better in Arkansas.” The WRI research station of the Survey is responsible for archeological resources in 11 counties of mountainous west-central Arkansas, including the southern fringe of the Ozarks (the Boston Mountains) and a large portion of the Ouachitas. The two mountain ranges incorporate varied upland and river valley environments and are separated by the Arkansas River corridor. Examples of important archeological resources in the station area range from rock shelters and rock art sites—including Indian Rock House in Van Buren County and numerous pictographs and petroglyphs at Petit Jean State Park in Conway County that are listed on the National Register—to finely made prehistoric ceramics from Carden Bottoms in Yell County—to the early 19th century town of Cadron in Faulkner County, also on the National Register of Historic Places.

Emily Beahm (Ph.D., University of Georgia, 2013) joined the Survey as an assistant at the WRI research station September 1, 2013 and was promoted to station archeologist beginning July 2015. Her major fields of interest are archeology of the eastern United States, Mississippian culture, ceramics, regional settlement patterns, social interaction, style, and iconography. Before coming to the Survey, she worked primarily in Tennessee and Georgia, with experience in directing major field projects, college teaching, and archival research.

Larry Porter is a native of Logan County, Arkansas, and has been a member of the Arkansas Archeological Society since 1979. He participated in summer Training Programs and spent eight years doing contract archeology for various private firms, mostly in the Ouachita National Forest, before joining the Survey in 1999 as archeological assistant at the ATU (now WRI) research station. His interests include the prehistoric Woodland and Mississippi periods of the northern Ouachita Mountains and Petit Jean River Valley, as well as early historic settlement in Arkansas. He is also an accomplished artist whose depictions of archeological subjects have appeared in publications and museum exhibits.

ing the rock shelters for? Do we see evidence for food storage, flintknapping, butchering? Were these places used for hunting camps or specialized activities? Can we see any evidence of activity associated with rock painting or ritual activity? Is there any difference in the use/occupation of rock shelters that have, and those that do not have, rock art?

Finally this study aims to look at the cultural affiliation and social identity of the people using the bluff shelters on Petit Jean Mountain. Researchers have identified a unique Petit Jean rock art style (Fritz and Ray 1982; Vogel 2005) based on the subjects depicted, how they are executed and how they are arranged. This style also has ties with pottery from the river valley below Petit Jean Mountain.



Excavations at 3CN362, a rock shelter on Petit Jean Mountain.

The staff at the WRI station, with the help of volunteer Don Higgins, began this research in April by conducting test excavations at a small rock shelter site, 3CN362. Over the course of several weeks, four two-meter square test units were excavated in a trench from the back to the front of the shelter. Artifact analysis is currently under way, but the pottery suggests a Mississippian affiliation for this shelter.

Wild Violet (3LO226)

The Wild Violet report was completed at the end of November. ARPA-permitted excavations at this site, which is endangered by flood erosion and looting, were carried out in 2013, supported by the Corps of Engineers and conducted by WRI personnel, archeologists from the ARAS-SRP program and other ARAS research stations, and volunteers. The report was written by Larry Porter with contributions from Emily Beahm, Ann Early, Elizabeth Horton, Lucretia Kelly, and Heidi Davis. Porter continued to monitor the status of the Wild Violet site. He collaborated in this effort with Mark Hise, the site steward.

Project Dig

Project Dig, a program for Gifted and Talented students that uses archeological concepts and active learning to teach critical thinking and the scientific method, has been sponsored by Winthrop Rockefeller Institute for several years. It is designed to teach fifth and six grade students about archeology and culture (see www.interact-simulations.com). Over the semester-long course, students learn about the different aspects of culture, invent an imaginary culture covering all those aspects, and create artifacts that reflect these ideas. Another class "excavates" those artifacts and attempts to describe the invented culture based on the artifacts and what they can interpret from them. During the spring of 2016, four classes with a total of 52 students from Dardanelle, Perryville, Hector, and Bigelow par-

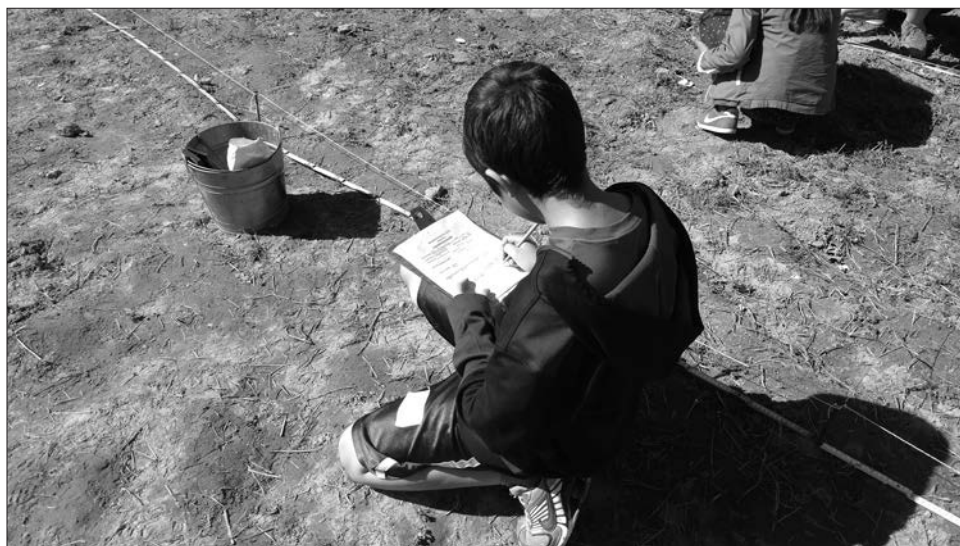
ticipated. Emily Beahm made school visits in January to each class. Four days of fieldwork at WRI were conducted in March and presentations by the classes were given at WRI in May.

Native American Gardens Project

The Native American Gardens at the WRI research station are designed to be an interactive way to learn about Native American gardening techniques, tools, and the plants used both before and after the introduction of corn into the Southeast. It is especially important to showcase the native plants that were domesticated locally that are not well known to the general public like maygrass, chenopodium, and marshelder. Native plants used for fiber such as dogbane and rattlesnake master are also featured in the gardens. The gardens also include a side plot with teosinte, the Mexican ancestor of corn, to demonstrate the process of domestication of this important food crop.

These gardens are open to the public to view and work in with Native American gardening tool replicas (made by ARAS staff members Jared Pebworth and Mike Evans). In addition to being a hands-on experience in planting and tending, harvesting, preservation, and preparation of the food produced will be an interactive experience for the interested public. Experimenting with the fiber-producing plants is another hands-on activity we hope to do with this project.

The gardens at WRI complement the Plum Bayou Garden built at Toltec Mounds Archeological State Park by ARAS station archeologist at the park, Elizabeth Horton. The WRI Native American Gardens will represent upland plant use adaptations, in contrast to the river valley setting of the Plum Bayou Garden. Both garden projects were conceived in a research environment acknowledging that the southeastern United States was one of ten independent centers of plant domestication in the world, and some of the best preserved and earliest evidence for indigenous southeastern crops comes from sites



Data recording during Project Dig.

in Arkansas. Emily Beahm is also part of a grant-funded ARAS project to develop a 5th grade curriculum called “Gathering, Gardening, and Agriculture” to teach about this important part of American history.

Emily Beahm wrote a post (<http://rockefellerinstitute.org/blog/AASopenhouse>) for the WRI blog about the Arkansas Archeological Survey and the Native American Gardens and the Archeology Month Open House.

Collections

Along with participants on volunteer lab days, Emily Beahm has been working on processing the artifacts from the Point Remove site (3CN4) that were generated from a surface collection in 2008 and 2009. Older collections from the A. Giles collections are also being analyzed. Beahm and Porter documented two private collections at the request of citizens in Cleburne County.



Emily Beahm managed the field lab during the Training Program in northeast Arkansas. 94 citizen-scientists volunteered to take part in archeological research during the two-week program.

WRI Research Station — Academic & Service Activities

Service to Winthrop Rockefeller Institute

- **Native American Garden.** Emily Beahm developed an in-house proposal last year to establish an Interactive Native American Plant Use and Gardening Project at WRI, incorporating existing gardens on the campus and complementing both the Plum Bayou Garden at Toltec Mounds Archeological State Park and the Mississippian Garden at Parkin State Park. This year the garden areas were prepared and planted, and incorporated in events hosted by the station at WRI.
- **Project Dig.** Station staff, cooperating with WRI Program Coordinators, again presented Project Dig, a program for Gifted and Talented students that uses archeological concepts and active learning to teach critical thinking and the scientific method; 52 fifth and sixth grade students from Dardanelle, Perryville, Hector, and Bigelow schools participated, along with their teachers and some parents.
- **Rock Art Tours.** Station staff continued to provide expertise on rock art and tours of rock art sites on Petit Jean Mountain for WRI Programs. Beahm and Porter led a tour for attendees of a Nanotechnology Conference and assisted Survey Director George Sabo with a tour for visiting members of the Osage Nation.
- **WRI Programs.** Porter assisted a watercolor workshop hosted by WRI at which some of the artifacts in station collections were used for still life subjects.

Professional Service

- **Professional Organizations.** Beahm was a volunteer during the Southeastern Archaeological Conference. She provided peer review for work submitted to *The Arkansas Archeologist* and *Tennessee Archaeology*.
- **Spring Break Digs.** Beahm and Porter participated in Spring Break Digs at the Taylor House (3CR26) and the Manley-Usrey site (3MS106).

Public Service & Outreach

- **Programs & Presentations.** Beahm participated in the Arkansas Tech University Anthropology Club Open House and artifact demonstration on the ATU campus during Archeology Month, using replica artifacts from the WRI station teaching collection (attendance 50+); Beahm gave a station tour and talk to visitors from Petit Jean State Park on the park's Archeology Day (audience 18); Beahm planned and set up displays for the WRI station Open House during Archeology Month (attendance 45); Beahm gave public talks to the Petit Jean Community Organization (audience 20) and Fairfield Bay Community Center (audience 12).
- **Public Schools & Universities.** Beahm gave a presentation to a history class at Ozark High School (13 students) and spoke in two "Teaching Arkansas History" classes at the University of Central Arkansas (45 students). In addition to the Project Dig program which served 52 students, Beahm and Porter hosted 30 home schooled students and their parents for an afternoon of archeological activities including a talk, a mock dig, artifact washing, and using prehistoric gardening tool replicas in the Native American Gardens at the WRI station.
- **Media Outreach.** Emily Beahm administers a Facebook Page for the WRI research station and ARV Chapter.

Service to the Arkansas Archeological Society

- **Chapter Presentations.** Beahm gave a talk to the Central Mississippi Valley Chapter in Jonesboro (audience 30).
- **Training & Certification Program.** Emily Beahm managed the field lab at the June 2016 Training Program, hosted at Parkin Archeological State Park.
- **Arkansas River Valley Chapter.** The WRI research station advises and supports the Arkansas River Valley Chapter, serving the Russellville/Morrilton and Petit Jean Mountain area. Emily Beahm serves as Secretary/Treasurer, handles publicity and logistics for monthly meetings, produces a newsletter, and schedules speakers. The staff host field/lab days for volunteers whenever possible.

Volunteer Hours

- Volunteers contributed 292.5 hours to station research projects in the field and laboratory during 2015–2016.



University of Arkansas at Pine Bluff Research Station

Menard Locality

The Menard locality at the southern tip of the Little Prairie in Arkansas County is believed to correspond to the late seventeenth century Quapaw village of Osotouy and the location of the first Arkansas Post, established by Henri de Tonti in 1686. Important archeological sites in the Menard locality include Menard-Hodges (3AR4), Lake Dumond (3AR110), and Wallace Bottom (3AR179). In 1997 the U.S. Congress authorized and funded the creation of an Osotouy Unit of Arkansas Post National Memorial, encompassing the Archaeological Conservancy's Menard-Hodges archeological preserve and the outlying Lake Dumond site. The Wallace Bottom site lies just outside the boundary of the Osotouy Unit, on the Dale Bumpers White River National Wildlife Refuge.

In 2014 the Survey, in partnership with the National Park Service Midwest Archeological Center in Lincoln, Nebraska, began a multiyear comprehensive archeological inventory of the Osotouy Unit. John House and Jami J. Lockhart, ARAS Computer Services Coordinator, represent the Arkansas Archeological Survey as co-principal investigators for this project. In February 2014 Lockhart directed geophysical surveys of the plaza and outlying northern periphery of the Menard-Hodges site. Results indicated what appear to be numerous cultural features beneath the surface in both areas of the Menard-Hodges site.

Phase 2 fieldwork, begun in September 2015, included further geophysical mapping and ground-truthing excavation on selected potential cultural features. Excavation on an extensive magnetic and resistance anomaly in Area 1 revealed a large, irregular intrusion containing occasional pottery fragments and other artifacts plus charcoal. A posthole identified in the profile of one of the Area 1 excavation units suggests the past presence of structures in this area. Excavation on an anomaly at Area 2 revealed a compact intrusion containing dark soil and abundant pottery fragments and animal bones. Concurrent with the work on the northern periphery of the Menard-Hodges site, John House directed systematic shovel testing on the wooded bank of Menard Bayou, south of the plaza.

John House and Robert Scott returned to the Menard locality in October to use a bucket auger to examine sediments along a north-south transect in a wooded portion of the Osotouy unit adjacent to the Refuge boundary. The purpose of the work was to determine if the nearby Wallace Bottom site extended from the Refuge onto the Osotouy Unit. No indication of cultural deposits beneath the historic alluvium was observed.

Osotouy Inventory fieldwork resumed in March 2016 with excavation on three additional anomalies identified by the 2014 remote sensing. Excavation on an anomaly in Area 5, immediately north of the principal mound at Menard-Hodges, revealed

The Pine Bluff research station is located on the UAPB campus. The station archeologist teaches courses in the UAPB Department of Social and Behavioral Sciences. The station is responsible for the archeological resources of eight counties of east-central Arkansas, extending from Little Rock to the Mississippi River. This territory encompasses portions of diverse physiographic regions including the Delta, the Gulf Coastal Plain, and the Ouachita Mountains. The archeological heritage of the area includes sites representing the entire temporal sequence, from the earliest Paleoindians at about 11,500 BC, through Colonial and Historic Arkansas. The best-known site in station territory is Menard-Hodges in the Osotouy Unit of Arkansas Post National Memorial. Menard-Hodges is part of a complex of sites thought to include the Quapaw village of Osotouy and the earliest Arkansas Post, which was the first European settlement in what became France's Louisiana colony.

John H. House (Ph.D., Southern Illinois University at Carbondale, 1991) is the Survey's Research Station Archeologist for UAPB, and Research Professor of Anthropology, University of Arkansas–Fayetteville. He has been involved with Arkansas archeology since he was a high school student in Mountain Home, and attended the first ever Arkansas Archeological Society Training Program. House joined the Survey in 1978 as an assistant at the UAPB station. He served as station archeologist at UAM from 1983 to 1985, and again during 1988, before returning to head the UAPB station. His interests include North American prehistory, material culture studies, and the archeology of colonial era Native Americans.

Robert J. Scott (M.A., University of Alabama, 2004) has worked previously for the Illinois State Museum, the Center for Archaeological Investigations at Southern Illinois University Carbondale, and Panamerican Consultants, Inc. He worked as the station assistant at the Survey's UAM research station (2004–2007), leaving to enter the Ph.D. program in Anthropology at Southern Illinois University, Carbondale. Scott was a teaching assistant at University of Alabama and Southern Illinois University, and for the archeological field schools at both institutions. His past experience includes work with WPA-era museum collections, studies of historic artifacts, faunal analysis, and the analysis of prehistoric pottery. He re-joined the Survey as station assistant at ASU in September of 2010, and transferred to UAPB station in the fall of 2013.

a cultural deposit containing abundant pottery and faunal remains, mostly deer bones, overlying a shallow intrusion with sparser cultural debris. Excavation on an irregular linear anomaly nearby revealed an apparent historic period field drain containing sparse amounts of historic debris. Excavation at a third location, Area 3, exposed a localized deposit of dark soil containing cultural debris. In addition to ARAS and National Park Service personnel, 12 volunteers participated in the September work at Osotouy and 13 volunteers participated in the March work. Russell Garber of the Quapaw Tribe of Oklahoma participated in both sessions as an observer for the Tribe.

John House continues to work on a report on the colonial era Native American graves at the Lake Dumond site. Six graves encountered at Lake Dumond during the Arkansas Archeological Society/ARAS Training Program in 1997 were excavated under a permit from the Arkansas Historic Preservation Program and in consultation with the Quapaw Tribe of Oklahoma. Poorly preserved human remains were found in some of the graves, in some cases accompanied by European trade materials including glass beads, objects fashioned from cuprous metal (e.g., brass) sheet, and traces of vermilion pigment. The graves are estimated to date to the very late 1600s or early 1700s and to possibly be those of Quapaws. The ongoing analyses emphasize detailed reconstruction of the grave features and compre-

hensive description of accompanying artifacts. The Quapaw Tribe of Oklahoma reburied the human remains in 2003 at the location where they were unearthed, after the remains had been analyzed and reported.

A third important archeological site in the Menard locality is Wallace Bottom. Results of fieldwork carried out from 2001 to 2006 support identifying Wallace Bottom as the location of a portion of the late 1600s Quapaw village of Osotouy and the location of the early 1700s French Arkansas Post. The Quapaw Tribe of Oklahoma sponsored the 2003–2004 work as part of the “Cooperation Then and Now” project funded by a National Park Service tribal historic preservation grant. Results from analysis of Native American material culture from Wallace Bottom were published by John House in 2013 in the journal *Southeastern Archaeology*. Results of analysis of plant remains from Wallace Bottom by Kelsey O. Nordine, Gayle J. Fritz, and Jocelyn C. Turner were published in a Research Series volume by the Arkansas Archeological Survey in late 2016.

Fourche Island

The Thibault Plantation locality adjacent to the Little Rock Port Industrial Park in Pulaski County has been a major research focus for the UAPB station since 2007. This field investigation is part of the Survey's ongoing response to accelerating



Volunteers Jamal Harvey, Gabrielle Clemons, and Rusty Eisenhower excavate Area 5 at the Menard-Hodges site in March, 2016.

impacts on cultural resources from residential, commercial, and industrial development in the Little Rock area. In the 1870s and 80s, J. K. Thibault excavated pottery vessels from a number of small mounds on his plantation on Fourche Island in the Arkansas River floodplain south of Little Rock and subsequently donated and loaned a series of vessels to the Smithsonian Institution. These were among the materials reported by W. H. Holmes in his 1886 article, “Ancient Pottery of the Mississippi Valley,” in the *4th Annual Report of the Bureau of American Ethnology*. The Thibault site is now within an 80-acre tract acquired by the Quapaw Tribe of Oklahoma in 2012.

During 2015–2016 the UAPB station continued topographic mapping and systematic shovel testing in the dense woods and undergrowth adjacent to Thibault Road. The 30 shovel tests completed in 2015–16 supplemented the 50 shovel tests from previous years to comprise a total of 80 shovel tests in about 5ha (12 acres) of wooded area. Seven volunteers participated in the 2015–16 shovel testing at Thibault.

The Arkansas Archeological Survey has entered into a contract with the Quapaw Tribe of Oklahoma to conduct a geophysical survey in portions of the cultivated field on the

Thibault site. This survey, to be conducted in the near future, has the potential for indicating the presence of graves and other cultural features below the surface and will aid the Tribe in long-term management and preservation of the Thibault site.

Mississippi and Protohistoric Period Architecture in Eastern Arkansas

John House’s article, “Mississippian and Protohistoric Period Architecture in Eastern Arkansas,” was accepted for publication in *The Arkansas Archeologist* in early 2016 and appeared in print in that journal in September. The article reports data from 110 structures at 33 archeological sites in 17 counties ranging from the Missouri state line on the north to the Louisiana state line on the south. The structures date from approximately AD 900 to 1700 and encompass both ceremonial and domestic uses.

Sassafras Mound

In September, House and Scott completed excavation of a stratigraphic test unit at the Sassafras Mound (3AR75) near DeWitt in Arkansas County. Topographic mapping in 2015 estab-

lished that the mound is 2.5m in height and that it is located on the western edge of a level area that may have served as a plaza in a local ceremonial center. Excavation of the stratigraphic test began in July 2015. The excavation included removing fill from a deep pit made by a local collector in the 1970s and squaring up the walls of the pit to facilitate recording stratigraphy.

Stratigraphic profiles of the completed test unit revealed that the mound had been constructed in at least three stages. Debris from a burned structure was encountered on top of the second construction stage. Two charcoal samples, one from the pre-mound surface and one from the top of the first construction stage, were submitted for dating to Beta Analytic. They returned dates of AD 1290 to 1405 and AD 1415 to 1450, respectively. These Sassafras Mound dates represent a significant contribution to archeology of a poorly known portion of eastern Arkansas's Grand Prairie. The dating was made possible by a donation to the Survey by a private individual in support of the UAPB station's research in east central Arkansas.

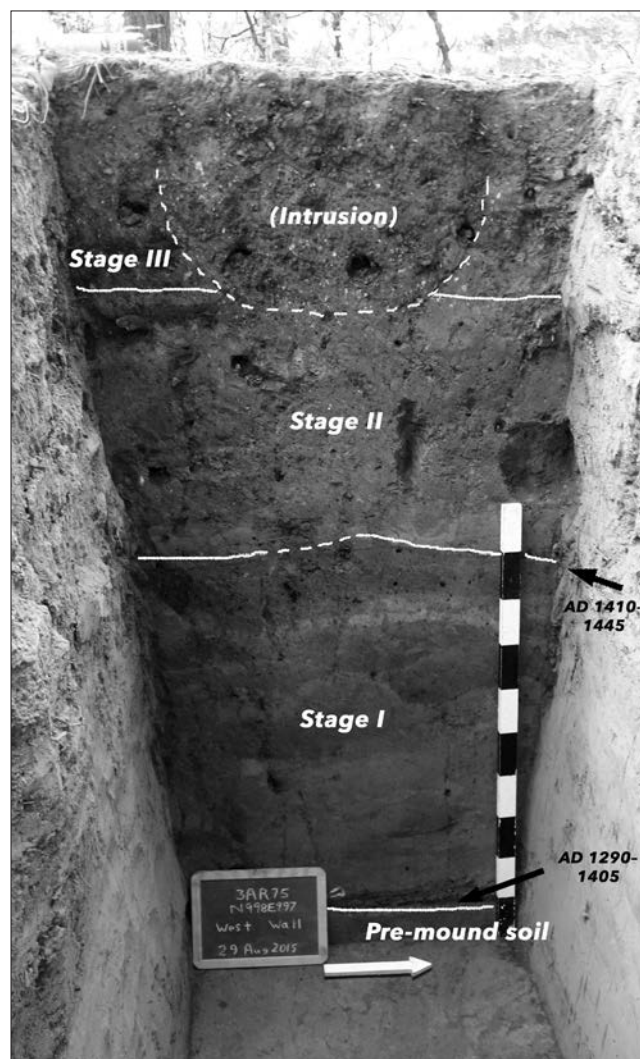
Other Projects

In August, House and Scott excavated a test unit and shovel tests at the Hugh Nixon site, 3PU752, near Jacksonville in Pulaski County. The primary purpose of the test was to secure samples of novaculite artifacts and manufacturing debris to compare with samples of novaculite from source areas in the Ouachita Mountains. The Hugh Nixon site primarily represents Archaic components dating over a span from 10,000 to 1000 BC.

Beginning in late 2016, John House began collaborating with an avocational archeologist from Carlisle, Arkansas to investigate sites in southeastern Lonoke County, an area which has hitherto had limited archeological attention. The collaboration has included recording and revisiting sites along Bayou Meto and Crooked Creek and photographic documentation of artifacts collected from the surface at these sites.

John House continued his long-term investigation of Mississippian effigy pottery in eastern Arkansas by recording whole (and one fragmentary) effigy vessels in a local private collection from sites in Arkansas and Jefferson counties. Analysis of effigy pottery from the lower Arkansas River will complement House's previous studies of pottery from along the Mississippi and St. Francis rivers in northeastern Arkansas.

John House, Robert Scott, and emeritus ARAS-UAM station archeologist Marvin Jeter began collaborating in June on a paper reporting distinctive Cahokia horizon artifacts in the UAPB and UAM station territories in Arkansas. Jeter read the paper, titled "Artifactual Evidence of Possible Cahokian (or Other Northerly Mississippian) Contacts in Eastern and Southeastern Arkansas," at the Mid-South Archaeological Conference held at Memphis on July 16–17, 2016. The conference brought together investigators from the Midwest and Mid-South to update evidence for interaction, ca. AD 1250, between the Cahokia Mounds in Illinois and local cultures in nine states in the greater Cahokia Interaction Sphere. Jeter et al.'s paper has been submitted for publication in a Mid-South



Test unit profile at Sassafras Mound, illustrating radiocarbon-dated stratigraphic contexts.

Archaeological Conference Proceedings volume to appear in the coming months.

Robert Scott's Research

Archeological Mussel Shell. In 2015–2016 Scott completed analysis/identification of mussel shell recovered from Feature 97 at site 3MN298 during the 2014 summer Training Program. A total of 1245 recognizable right and left valves are in the shell assemblage, of which just over 50 percent are identifiable to the level of genus and/or species. Fifteen species of freshwater mussels are represented in the assemblage, all of which have been documented in recent mussel surveys of the upper Ouachita River. The shell deposit most likely represents a single harvesting episode of a mussel bed in the nearby Ouachita River.

Tillar Archeological Project. As part of his doctoral research for Southern Illinois University at Carbondale, Scott is conducting an archeological study along Bayou Bartholomew in Drew County. The purpose of the research is to test alternative hypotheses for the timing and causes of depopulation in the northern Lower Mississippi Valley in the late Mississippi period, approximately AD 1400–1700. By the end of June 2015, Scott had completed reconnaissance and probabilistic survey of the project area, having recorded approximately 138 new prehistoric and historic sites and revisited 16 previously recorded Tillar phase sites. The latter sites include three mortuary/ceremonial sites and four habitation sites.

In 2015–2016 the focus shifted to intensive shovel testing and small-scale excavation on sites where intact midden or cultural features were suspected. Three previously recorded Tillar phase sites and two newly recorded Tillar phase sites were selected for test excavation. Cultural features and/or midden deposits were encountered at all five sites. In addition

to samples of pottery sherds and other artifacts, bulk sediment samples were collected for water flotation.

Alongside fieldwork, Scott reanalyzed collections at the UAM research station. Fourteen previously unrecognized Tillar complex components were identified in these collections.

With support of a grant from the Arkansas Archeological Society's Archeological Research Fund, Scott submitted a sample of charred nutshell from a cultural feature at the Open Lake site (3DR166) to Beta Analytic. Analysis of the sample returned a calibrated date of AD 1640 to 1670.

Prehistoric Ceramics from East Central Arkansas. In March 2015 Scott assembled representative groups of pottery sherds and other artifacts from various portions of the regional Arkansas sequence. John House took digital images of the artifacts in these groups in 2015–2016, which Scott periodically posted on the UAPB station's Facebook page (without accompanying site information).

UAPB Research Station — Academic & Service Activities

Grants, Honors & Awards

- \$595 from the Arkansas Archeological Society's Archeological Research Fund to Robert Scott for an AMS date on charred nut shell from the Open Lake site, 3DR166.

Teaching & Higher Ed

- House taught SOCI 2330, Introduction to Anthropology (36 students) during the Fall 2015 semester and SOCI 3360, Peoples and Cultures of Africa South of the Sahara (4 students) during the Spring 2015 semester at UAPB.
- Scott (hired as an adjunct Instructor) taught SOCI 2330, Introduction to Anthropology (38 students) during the Spring 2016 semester at UAPB.
- House serves on the doctoral dissertation committee for Southern Illinois University at Carbondale Ph.D. candidate Robert Scott, and as chair of UAF Ph.D. student Jessica Cogburn's dissertation committee.
- House served as judge for the Junior and Senior High School exhibits in the Earth Science Division of the annual UAPB Regional Science Fair.

Public Service & Outreach

- **Programs & Presentations.** House presented programs at the Pine Bluff-Jefferson County Historical Museum (audience 9), and the Civil War Round Table of the Grand Prairie at the Lonoke County Museum (audience 7). Scott gave a talk to the Pine Bluff Chapter of the Daughters of the American Revolution (audience 30). House and Scott participated in "Artifact ID Days" during Arkansas Archeology Month at the Delta Rivers Nature Center in Pine Bluff (attendance 13) and at the Cabot Public Library as part of a history fair (attendance 60).
- **Historic Cemetery Preservation Initiative.** House consulted on documentation and preservation of two African American cemeteries in Phillips County (Norton Cemetery near Turner and Magnolia Cemetery at Helena). House and other members of Preserving African American Cemeteries in Arkansas (PAAC) attended the monthly meeting of the Little Rock Port Authority in January in support of the Quapaw Tribe's efforts to preserve the abandoned cemetery on their property on Thibault Road.
- **U.S. Fish and Wildlife Service.** House worked with staff (including an intern) of Dale Bumpers White River National Wildlife Refuge to prepare preliminary designs for an exhibit on archeology at the Refuge. Currently on hold, the project, when completed, will be installed in the exhibit area of the Refuge headquarters at St. Charles.

- **National Park Service.** In addition to the work at the Osotouy Unit described above, House assisted Ted Catton, a free-lance writer on contract with the National Park Service, in preparing a historical resources study for Arkansas Post National Memorial.
- **State Historic Preservation Office, Arkansas Historic Preservation Program.** House collaborated in March with AHPP archeologist Lane Shields in connection with possible unmarked graves at a development location in west Little Rock. The location had been recorded by an avocational archeologist (now deceased) in the 1970s. Investigation by a cultural resource contractor in early 2016 failed to locate evidence of graves at the location.
- **Media Outreach.** Scott administers a Facebook Page for the UAPB station.

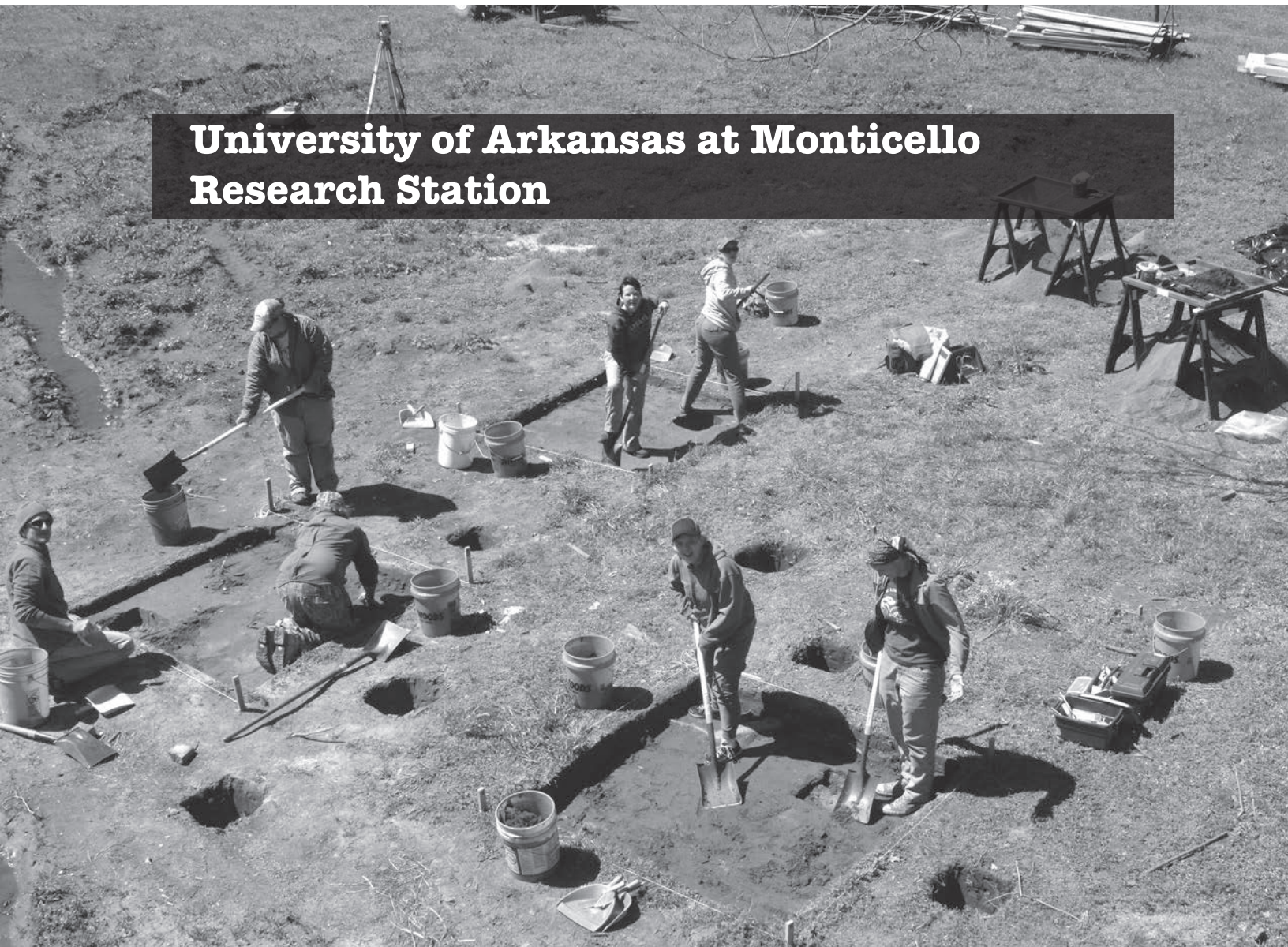
Service to the Arkansas Archeological Society

- **Training & Certification Program.** House and Scott participated in the 2016 Training Program at the Richards Bridge site in northeast Arkansas. House taught the Basic Excavation Seminar and helped supervise excavations in Area 1. Scott helped supervise excavations in Area 3.
- **Volunteer Opportunities.** The station invites local Society members to assist in the lab or fieldwork whenever opportunities arise.

Volunteer Hours

- Volunteers contributed 396 hours to station research projects in the field and laboratory during 2015–2016.

University of Arkansas at Monticello Research Station



Taylor House

The ARAS-UAM research station continues to work with the University of Arkansas at Monticello on the restoration of the Taylor House, or Hollywood Plantation, as it is also known. In March 2016, Arkansas Archeological Survey archeologists, with the assistance of Arkansas Archeological Society volunteers, conducted excavations to locate the smokehouse and begin studying the plantation landscape. The team identified possible post molds and small trash pits, but did not find brick piers to definitively show the foundation of the smokehouse. However, the artifacts—including chain, meat hooks, and an abundance of animal bones—give an outline of the general area of the smokehouse and provide clues to the foodways of the Taylor family. About 40 people participated in the excavations and committed 160 volunteer hours to the project.

The majority of the artifacts from the spring 2016 excavations have been washed and primary analysis completed. Secondary analysis continues on the glass artifacts from 2014. Dr. Lucretia Kelly, of Washington University in St. Louis, is analyzing samples of the faunal remains from 1991/1992 and 2014.

This year was also about making connections. The Taylor family originally came from Kentucky. They maintained homes and plantations in both locations. These interregional connections are an important part of the Taylor House story. In May 2016, Dr. Nancy Theiss, of the Oldham County Historical Society in Kentucky, visited Monticello to conduct research for an exhibit on the Taylor family. During her stay, we visited the Drew County Archives, the Drew County Historical Museum, the UAM Library Special Collections, and the Taylor House site. We also held a lunch at the museum, where Drew County

The UAM research station is located on the University of Arkansas campus in Monticello, where the station archeologist teaches anthropology courses in the School of Social and Behavioral Sciences. Station territory covers seven counties in southeastern Arkansas. The eastern portion consists of landforms deposited by the ancestral Arkansas and Mississippi rivers and their tributaries and contains numerous small to moderate habitation sites and occasional mound and/or mortuary centers of the later prehistoric and protohistoric periods. Several mound sites are mentioned in the reports of Victorian era archeologists. To the west are uplands of the West Gulf Coastal Plain, dissected by the Saline-Ouachita drainage and its tributaries. This area contains some older Archaic period sites as well as the later sequence. Among many significant sites in station territory, the small Lake Enterprise Mound is affiliated with the famous Poverty Point culture and is the oldest known Indian mound in Arkansas. More recent sites range from the National Register listed Taylor/Hollywood Plantation 1840s log house and Lakeport Plantation in Chicot County, Arkansas's only remaining pre-Civil War plantation mansion on the Mississippi Delta, to World War II internment sites such as Camp Monticello, Rohwer, and Jerome.

Jodi Barnes (Ph.D., American University, 2008) is the Survey's Research Station Archeologist at UAM and Research Assistant Professor in the Department of Anthropology, University of Arkansas – Fayetteville. She joined the Survey in January 2013. She was previously staff archeologist and GIS coordinator for South Carolina's State Historic Preservation Program. She has published articles in the *International Journal of Historical Archaeology* and *Historical Archaeology*, and a number of book chapters. She also edited a book titled *The Materiality of Freedom: Archaeologies of Post-Emancipation Life*, and is co-editor with Frank McManamon and Andy Stout of a volume titled *Managing Cultural Resources: Global Context, National Programs, and Local Actions*. Since her arrival, Dr. Barnes has secured funding and grants to support research and public outreach in southeast Arkansas, published articles on this research, conducted public outreach activities, and is teaching "Cultural Anthropology," "Sex, Gender, and Culture," and "Introduction to Archeology" at UAM.

Katherine Gregory (M.A., Florida Atlantic University) joined the Survey as station assistant at UAM in October 2014. She earned her B.A. in Anthropology from Marquette University and previously worked for the Seminole Tribe of Florida Tribal Historic Preservation Office.

Historical Society members, Joan Gould, of Preservation Matters, and Robin and Harry Loucks, descendants of the Taylor family, joined us to discuss the Taylor family history. These meetings are an exciting step in the public archeology of the Taylor House.

Jodi Barnes received the 2016 Walter L. Brown Award for Best Article in a County or Local Journal from the Arkansas Historical Association for "The Archeology of Health and Healing at Hollywood Plantation," published in the *Drew County Historical Journal*.

Educational Outreach

Bend. In August 2015, the UAM research station hosted Kimi Maeda's solo performance *Bend*. *Bend* tells the true story of two men interned in a Japanese-American internment camp during World War II: Maeda's father, an Asian Art historian currently suffering from dementia, and the subject of his research, Isamu Noguchi, a half-Japanese, half-American sculptor. Weaving together live feed projections of sand drawings with archival footage from the forties, audio recordings of Maeda's personal

musings, interviews with her father, and quotations written by Noguchi, the poetic script moves back and forth in time and space posing important questions about how the Japanese American internment camps will be remembered. Performances were held at the Ron Robinson Theater in Little Rock and at McGehee High School in McGehee. Each performance was followed by talkbacks with Richard Yada, who was born at Rohwer and Dr. Johanna Lewis from the University of Arkansas at Little Rock. Over 100 people attended the performances.

Following the performances, Maeda conducted a day-long workshop with 40 high school and college students from around the state. The students watched Maeda perform *Bend* and learned to create their own sand drawings based on things they saw and experienced that day. In addition, the students learned about the history of the camps by exploring the exhibit at the World War II Japanese American Internment Museum in McGehee. They learned about Japanese culture and cuisine through a meal inspired by menus recovered from Rohwer, as well as a Japanese language lesson by students from the University of Arkansas at Monticello's Japanese Club.



Emily Beahm (ARAS-WRI) and volunteer Karen Johnson shovel skimming at the Taylor House.



The UAM research station received an Arkansas Humanities Council Public Programs grant and an Arkansas Arts Council Collaborative Project Support grant to fund this project.

Virtual Field Trip to Rohwer. Jodi Barnes worked with Kim Wilson, of A+ Schools, to develop a virtual field trip to Rohwer and the WWII Japanese American Internment Museum for Arkansas Arts Academy in Rogers. The team created a video tour of Rohwer and on February 22, Wilson, Barnes, and Shelle Stormoe from the Arkansas Historic Preservation Program gathered at the museum and video-conferenced the tour, which focused on creativity at the camp. The virtual field trip was made available to classrooms around the state.

Gathering, Gardening, and Agriculture: 5th Grade Social Sciences Curriculum. The UAM research station has taken the lead on development of a 5th grade social sciences curriculum focused on plant-based foodways in the southeastern United States, with an emphasis on sites in Arkansas. The curriculum, which is aligned with the 5th grade Arkansas Department of Education Social Studies Curriculum Framework,

Kimi Maeda's sand drawing workshop at the World War II Japanese American Internment Museum in McGehee.



Behind the Big House program at the Sanders Kitchen at Historic Washington State Park.

explores concepts of Native American and early Euroamerican and African-American plant use and teaches students about key episodes in history, patterns of change through time, and the ways scholars view, construct, and interpret the past. The final products will consist of a printed curriculum guide, teacher workshops, and a video web-series to prepare educators to use the inquiry-based, experiential lessons in their classrooms.

This project is supported by a Southeastern Archaeological Conference Public Outreach grant, an Arkansas Humanities Council Pre-Production Media grant, and a Bill Jordan Public Outreach grant from the Arkansas Archeological Society.

Preserve Arkansas

Jodi Barnes is President-Elect of Preserve Arkansas, a statewide nonprofit organization committed to building stronger communities by reconnecting Arkansans to our heritage and empowering people to save and rehabilitate historic places. Barnes applied for grant support from the Arkansas Humanities Council and organized the 2015 Fall Ramble and “Behind the Big House” program.

Fall Ramble. Preserve Arkansas holds a “ramble” each year to celebrate a unique region of Arkansas. The 2015 all-day bus tour visited World War II sites in southeast Arkansas. Participants visited Camp Monticello, an Italian prisoner-of-war camp; Rohwer, a Japanese American internment camp; and the WWII Japanese American Internment Museum in McGehee. They dined upon a meal based on menus from Rohwer and Jerome, heard a lecture on Japanese American internment camps by Dr. Johanna Lewis, and saw a short contemporary dance performance of “Remembrance” by the CORE Performance Company. This project was supported by an Arkansas Humanities Council Public Programs grant.

Behind the Big House. This program moved beyond the “Big Houses,” or stately historic homes, to explore the extant slave dwellings behind the “Big Houses” and interpret the experiences of the enslaved people who inhabited them. Preserve Arkansas worked with the Arkansas Archeological Survey, Arkansas State Parks, and the Arkansas Black History Commission to develop this two-day program, which was held at Historic Washington to provide guidance for interpreting

African American structures and sites and to increase African American attendance at these places. Joseph McGill from the South Carolina-based Slave Dwelling Project, Jerome Bias, interpreter at Stagville State Historic Site in North Carolina, and Dr. Jodi Skipper from the University of Mississippi joined Arkansas archeologists and historians to offer a broad understanding of the importance of slave dwellings in the interpretation of historic landscape and their role in heritage tourism. A Major Grant from the Arkansas Humanities Council supported this project.

Research Station Operation

Rohwer Cemetery Restoration Monitoring. Barnes worked with John Greer, WER Architects, to monitor the restoration of Rohwer Japanese American Internment camp cemetery. During the restoration, the sod removal uncovered one of the original mortars from the monument to commemorate the people who died while interned at Rohwer. A crack along the center shows that the mortar has been repaired previously. The mortar is a significant artifact that shows the ingenuity and creativity of the internees. It has been washed, catalogued, and stored in the UAM research station's collections.

Additional Activities. During the 2015–2016 fiscal year, the UAM research station was actively involved with the Drew County Historical Museum. The station worked with students to photograph and inventory the collections in the archeology room. The station archeologists were also involved with cemetery preservation, helping descendants document and preserve cemeteries such as the Gould Cemetery in Bradley County and Hill Cemetery in Desha County. The UAM research station

continues to work on organizing the collections, improving the laboratory, and increasing public participation in lab work. Katherine Gregory hosted monthly lab programs and held a bottle identification workshop.

Katherine Gregory helped with ARAS fieldwork projects, including test units at 3DR55 for the Tillar Archeology Project, mapping at 3NE112, mapping at St. Paul's cemetery 3CA346, laying a grid at the Samuels-Turner House at Historic Washington State Park, Spring Break Dig at the Taylor House 3DR26, metal detecting survey at Elkins' Ferry Battlefield 3NE217, and at Wallace's Ferry 3PH497, and mapping Tillar Cemetery Mound 3DR52.

Volunteers, Attendance, and Social Media. Volunteers contributed over 300 hours of service to fieldwork, lab, and public outreach projects with the UAM station. Over 1300 people attended Tunican Chapter monthly meetings, the Preserve Arkansas's Fall Ramble, the A+ Schools Virtual Field Trip to Rohwer, Felsenthal Fall Festival, 4-H Day of Archeology, Behind the Big House, and other events.

Facebook is an important tool for engaging with the public. At the end of the 2015–2016 fiscal year our station Facebook page had 641 followers. The page is used to promote events, share news about archeological research, and educate the public. The UAM research station contributes weekly and bi-weekly #TBT and #WhatDidWeFindWednesday posts that educate the public about Arkansas history and archeology. According to Facebook's algorithms, this content reached 103,135 people in the United States and 34 countries and 8691 people engaged with the content by clicking on the links or photos.

UAM Research Station — Academic & Service Activities

Grants, Honors & Awards

- Jodi Barnes received the 2016 Walter L. Brown Award for Best Article in a County or Local Journal from the Arkansas Historical Association for "The Archeology of Health and Healing at Hollywood Plantation," published in the *Drew County Historical Journal*.
- Jodi Barnes received a Project Archaeology Leadership Academy Scholarship to attend the Leadership Academy training program in Bozeman, Montana during 2016.
- \$1990 SEAC Public Outreach Grant from the Southeastern Archaeological Conference to help fund teacher workshops for the Gathering, Gardening, and Agriculture 5th Grade Curriculum project.
- \$3290 Bill Jordan Public Outreach Grant from the Arkansas Archeological Society to fund a curriculum/activity book for the Gathering, Gardening, and Agriculture 5th Grade Curriculum project.
- \$4999 Pre-production Media Grant from the Arkansas Humanities Council to help fund production of a video web-series for teachers as part of the Gathering, Gardening, and Agriculture 5th Grade Curriculum project.
- \$1500 Public Programs Grant from Arkansas Humanities Council for Preserve Arkansas Fall Ramble.
- \$17,037 for "A Smokehouse Plus a Kitchen Equals Foodways" and \$23,096 for "Archeology of the Hollywood Plantation Landscape" from UAM and ANCRC for Taylor House excavations.
- The ARAS-UAM research station was awarded a Desha County 4-H Certificate of Appreciation.

Teaching & Higher Ed

- Barnes taught Cultural Anthropology (12 students) and Introduction to Archeology (6 students) during Spring 2016. Students went on two field trips to Toltec Mounds State Park to help with the Plum Bayou Garden and to learn flotation and process Taylor House samples.
- Barnes assisted Ryan Reynolds, a GIS student, with a senior thesis project, and Gabriel Bass, with a paper on cultural heritage in conflict areas; Bass won a scholarship with his paper. Barnes continued working with student Cherie Miller on independent coursework in order to graduate with the first anthropology minor from UAM. This year Miller's course involved an assessment of needs and grant proposal for the Turner Neal Museum. Barnes also worked with Deidra Strom, a UCA student doing research on Arkansas foodways during the 1940s, including a comparison of white Americans and African Americans in Arkansas, and Japanese Americans relocated to internment camps in Arkansas.
- Barnes and Gregory met with the new Chancellor, Karla Hughes, to discuss how archeology contributes to other programs at UAM, and Barnes prepared a document on archeology's linkages with other programs, especially Forestry and Natural Resources, History, and Education. Barnes served on the Recruitment Committee and helped draft text for a promotional flier for the School of Behavioral and Social Sciences. She helped represent the School at Weevil Welcome.
- Barnes continued to work with other UAM faculty on the Taylor House and Camp Monticello projects.

Professional Service

- **Society for Historical Archaeology.** Barnes serves on the SHA's Gender and Minority Affairs Committee; she helped with content for the new GMAC website. She is also on the Academic and Professional Training Committee. Barnes is currently working on a special issue of the journal *Historical Archaeology* based on a 2015 SHA symposium that she organized.
- **Preserve Arkansas.** Barnes was elected as President-elect this year. She organized the Fall Ramble and obtained a grant to fund this activity. She attended monthly executive committee meetings and quarterly board and education committee meetings.
 - Barnes applied for and received a major grant to support "***Behind the Big House***," a two-day event at Historic Washington State Park. She helped prepare promotional materials; prepared a presentation on the archeology of slavery; wrote short articles for *Auntie Bellum*, an online magazine, and for the AHA Newsletter, the Slave Dwelling Project blog; and wrote a final report. Over 40 people attended the two-day workshop.
- **Consultations.** Barnes provided assistance to various local, state, and federal agencies on archeological issues. With Jamie Brandon (ARAS-UAF), Barnes conducted Heritage Resource Technician training for the Forest Service at Camp Clearfork near Hot Springs.
- **Other Organizations.** Barnes is active in the Arkansas Historical Association, Drew County Historical Society, and the Drew County Museum Commission. The station worked with the museum this year to inventory their collections. Barnes served on the Survey's Publications Committee.

Public Service & Outreach

- **Programs & Presentations.** Station staff participated in Pan-African Day in Monticello (60 attendees), Market in the Park (65 attendees), Felsenthal Fall Festival (300 attendees), and Owl Fest in McGehee (100 attendees). The station hosted the *Bend* performance and workshops (combined attendance 156).
- **Archeology Month Activities.** Barnes moderated a forum on preserving African American cemeteries with Carla Coleman and Kathy Anderson from Preservation of African American Cemeteries and Holly Hope from the Arkansas Historic Preservation Program. Barnes created an exhibit about the POW camp at Monticello for the UAM Library during Archeology Month. She revised the 2015 Archeology Minutes created by Jamie Brandon and Marilyn Knapp and worked with Russ Miller at KAGH 104.9 FM in Crossett to have them read from that station. Gregory assisted with the 4-H Day of Archeology in McGehee (80 participants) and Monticello Cub Scouts Archeology Day (10 participants)
- **Project Archaeology.** Barnes participated in two Project Archaeology training programs: Leadership Academy in Bozeman, Montana, and Investigating Shelter Online Educator Course through Montana State University and the Bureau of Land Management.
- **Social Media.** Barnes and Gregory worked to develop public outreach and education on social media.
- **Historic Cemeteries.** Barnes assisted preservation efforts for Hill Cemetery in Chicot County and the J. Gould Cemetery in Bradley County.

Service to the Arkansas Archeological Society

- **Programs & Presentations.** Barnes gave talks at the Arkansas River Valley (Russellville) and Ko-ko-ci (Fayetteville) Chapters (combined audiences 35).
- **Training & Certification Program.** Barnes and Gregory participated in the summer Training Program at the Richards Bridge site in northeast Arkansas. Gregory supervised excavations in Area 3.
- **Tunican Chapter.** The station advises and supports the activities of the Southeast Arkansas Tunican Chapter, including Lab Days for volunteers. Barnes organized the speaker series, wrote articles for the newsletter, and prepared press releases and fliers. The station also completed the Department of Education's forms for teachers to receive Education Credits for attending Chapter meetings.
- **Annual Meeting Plans.** Barnes and the ARAS-UAM research station worked with the Tunican Chapter and the ARAS-SAU research station to organize the 2016 Annual Meeting in El Dorado.

Volunteer Hours

- Volunteers contributed over 300 hours to station research projects in the field and laboratory during 2015–2016.



Henderson State University Research Station, Arkadelphia

Social Identity and Community in the Ouachita Mountains

Excavations at two archeological sites in Montgomery County in 2013 and 2014 were directed by Mary Beth Trubitt and Meeks Etchieson (now retired from the Ouachita National Forest) as part of a collaborative research project by the Arkansas Archeological Survey, the U.S.D.A. Forest Service, and the Arkansas Archeological Society. The artifacts, food remains, and traces of architecture left behind by people's daily activities in the past provide clues to social identity, interaction between Native American communities, and changes through time in the Ouachita Mountains.

Since the excavations were completed, Mary Beth Trubitt and Katie Leslie, assisted by Society volunteers and HSU students, have finished processing, sorting, and cataloguing artifacts from both sites, and have analyzed ceramic sherds from 3MN298. Katie Leslie created maps of cultural features at 3MN298 for publication, and photographed selected materials. She also prepared a summary of research results for the annual meeting of the Arkansas Archeological Society, while Trubitt presented comparisons of ceramics from different locations within the site to the annual meeting of the Caddo Conference. With funding from the Arkansas Archeological Society and U.S. Forest Service, Trubitt and Leslie obtained two additional dates

The Arkadelphia research station is located on the campus of Henderson State University, where the station archeologist teaches anthropology courses in the Department of Sociology, Human Services, and Criminal Justice. The station is responsible for archeological resources in nine counties of southwestern Arkansas. This area is dominated by the Ouachita Mountains, but extends across parts of the Little Missouri, most of the Middle Ouachita, and the Middle Saline river basins on the Gulf Coastal Plain. Ouachita Mountain novaculite, mined extensively in the 19th century as “Arkansas whetstone,” and also quarried by prehistoric American Indians for toolmaking and trade, is a resource that affected early settlement and land use in the uplands. In the river basins, salt-making was an industry pursued by American Indians and later by settlers. Both activities are represented by important archeological sites.

Mary Beth Trubitt (Ph.D., Northwestern University, 1996) is the Survey’s Research Station Archeologist for HSU/Arkadelphia, and Research Professor of Anthropology, University of Arkansas–Fayetteville. She joined the Survey in 2000 after a teaching position at Western Michigan University. She has previous field experience in ten states and Belize, including work in southern Arkansas in the 1980s, and extensive research at the Cahokia site, where she studied the role of prestige goods in the political strategies of chiefdoms, among other topics. She is an expert on various prehistoric technologies and procurement strategies, including the shell bead industry, novaculite and other lithic extraction and tool making, and ceramics.

Katie Leslie (B.A., Southern Illinois University, Edwardsville, 2010) came to Arkansas in 2014 as the new assistant for the HSU station. She was previously with the Illinois State Archaeological Survey, where she worked as a crew chief on excavations at the Mississippian period East St. Louis site. In 2013 and 2014 she was awarded competitive Women in Archeology internships at the Center for American Archeology in Kampsville, Illinois. She is interested in Mississippian archeology, ceramic and lithic analysis, and foodways. Katie left the Survey in May 2016 to begin a new position in Missouri.

on burned samples using the accelerator mass spectrometry (AMS) technique. In all, 11 AMS dates from the site—many directly dating fragments of domesticated plants from pits, hearths, or post holes at 3MN298—establish that ancestral Caddo Indians lived there between 2300 BC and AD 1650. Trubitt and Leslie wrote a summary of these results for the Society’s newsletter, *Field Notes*. They also collaborated with Dr. Leslie Bush and Dr. Lucretia Kelly, who analyzed plant remains and animal bone from the site, to write a synthesis of these results for the *Caddo Archeology Journal*. People living at the site between AD 1400 and 1650 (the Mississippi or Caddo period) ate meat from deer, squirrel, opossum, turkey, turtles, and a variety of fish caught from the nearby Ouachita River. They farmed crops such as corn, squash, bean, and chenopodium (a native relative of quinoa), and collected wild fruits (maypop, strawberry, hawthorn, and grape) and nuts (hickory, black walnut, acorn, hazelnut). Squash recovered from a hearth dating to the AD 800s suggests even earlier domestication of this plant in the Woodland period. Bob Scott (ARAS-UAPB) analyzed mussel shell from the site this year. The meat of freshwater mussels were a food source while the shells were ground for temper in pottery.

Deer scapula showing cutmarks from butchering, recovered from Pit Feature 97 at 3MN298 (photo by Katie Leslie).



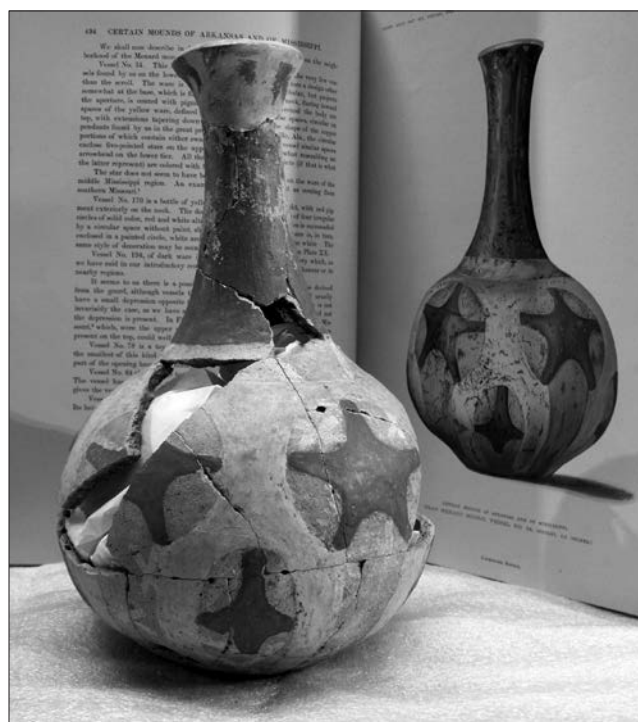
Mary Beth Trubitt compiled site information from 3MN298 to create an updated map of site boundaries, and completed a project form for AMASDA, the Survey's computerized database system. Katie Leslie and volunteers analyzed curated collections from two additional sites in Montgomery County for comparison with the Society Training Program sites. Dr. Trubitt requested and received permission from the Caddo Nation to conduct Instrumental Neutron Activation Analysis (INAA) on a sample of ceramic sherds from the Adair site (3GA1), curated by the University of Arkansas Museum Collections, along with a set of sherds from the 3MN298 excavations. The results will establish the chemical signatures of the local pottery, and provide comparisons with other regions to trace the movement of pots in trade across Arkansas. A grant from the University of Missouri Research Reactor Center provided a rate reduction that will allow a larger sample of sherds to be studied. Adair, a multiple mound center downstream on the Ouachita River, was excavated by Works Progress Administration crews in 1939, and now lies below Lake Ouachita.

Documenting Caddo Ceramics

The ARAS-HSU station staff curate the Joint Educational Consortium's Hodges Collection of Native American artifacts at Henderson State University. This large and significant collection from archeological sites in Clark and Hot Spring counties was assembled by Dr. and Mrs. Thomas Hodges and Mr. Vere Huddleston in the 1930s and 1940s. Mary Beth Trubitt and Katie Leslie continued documenting and analyzing Caddo vessels, with the help of Society volunteers and HSU students. Research on the pottery in this collection details technological aspects of pottery production (temper, paste, firing conditions), vessel form, size, and function, as well as stylistic aspects of vessel decoration to identify social boundaries and changes through time in the Middle Ouachita River region. Katie Leslie photographed vessels, entered information from coded vessels into the database, and scanned data sheets. Trubitt updated Hodges Collection inventories, compiled information on associated and unassociated funerary objects, and advised the JEC and HSU administrations in their consultations with the Caddo Nation. Trubitt and Leslie also maintain several exhibits that use Hodges Collection objects to interpret Caddo history in the Arkadelphia area for the public. Trubitt wrote a description of research on this important collection for the Survey's website, and wrote a manuscript on a decorated bottle from the Menard-Hodges site for the Society's newsletter, *Field Notes*.

New Fieldwork in the Middle Ouachita River Valley

In response to a local landowner's concern about looting and damage on his property, Mary Beth Trubitt and Katie Leslie visited 3HS151 to assess its condition and develop a plan for investigations. The site lies in a region that attracted the attention of amateur archeologists in the early 20th century, but has had relatively little research by professionals in recent decades. With volunteers, Trubitt and Leslie created a topographic map



Nodena Red and White bottle from the Menard-Hodges site (3AR4) from the Joint Educational Consortium's Hodges Collection, curated at the HSU station, shown against an identical bottle from the site illustrated in a 1908 publication (photo by Mary Beth Trubitt).

of the site, and made some brief test excavations, identifying Late Archaic/Early-Middle Woodland and Late Mississippian components based on diagnostic artifacts. Jami Lockhart (ARAS-CSP) conducted geophysical surveying (gradiometry) across a portion of the site to evaluate the potential for subsurface cultural features, and additional testing was done at the site. Following fieldwork, Katie Leslie processed and analyzed artifacts from the excavations, and created maps for publication. Leslie and Lockhart presented preliminary results at the Caddo Conference in Nacogdoches, Texas. Trubitt wrote a site revisit form and project form for AMASDA. Following discussions with the landowner, further research is planned for the site and in this region.

Two Book Projects

Mary Beth Trubitt edited a volume of papers that originated as a festschrift symposium at the 2014 annual meeting of the Society for American Archaeology. *Research, Preservation, Communication: Honoring Thomas J. Green on His Retirement from the Arkansas Archeological Survey* includes chapters written by Green's colleagues from within and outside Arkansas, discussing current research on themes that he emphasized in his own work: historic preservation, working with descendant groups, and relating archeological research to public audiences. Trubitt



Test excavation at 3HS151, with Mary Beth Trubitt (on left) and Katie Leslie (on right) (photo by Chester Shaw).

worked with the volume authors and with Deborah Sabo (ARAS Publications Editor) to take this from manuscript to published form as the Arkansas Archeological Survey's newest Research Series volume (No. 67).

Trubitt also worked with Dr. Anne Dowd (ArchaeoLOGIC USA, LLC) on writing a new book manuscript, *Extracting Stone: The Archaeology of Quarry Landscapes*, for Oxbow Books. The Arkansas novaculite quarries and associated workshop and habitation sites will be one of the case studies in this book. In addition, Trubitt wrote about William Henry Holmes and his contributions to quarry studies in North America, about innovative research in landscape archeology and quarry landscapes, and about major North American quarries that are accessible and interpreted for the visiting public.

Investigating Tool Production and Exchange Using Arkansas Novaculite

Mary Beth Trubitt continues to update the *Arkansas Novaculite* website (<http://archeology.uark.edu/novaculite/index.html>), replying to emailed inquiries, adding to the novaculite distribution database and map, and writing new material. A final project report was completed for the Ouachita National Forest



Dart points made of silicified sandstone from Area IV excavations at 3MN298, photographed for the *Arkansas Novaculite* website (photo by Mary Beth Trubitt).

and Hot Springs National Park, quarry site forms, revisit forms, and a project form were completed for AMASDA, and project records were scanned. Katie Leslie created small novaculite comparative collections for the Survey's UAM and UAPB research stations. Trubitt, Leslie, and HSU student Kenita Vanderslice attended an online seminar, "Archaeological Applications of Airborne Laser Scanning" (Society for American Archaeology), to learn more about LiDAR and its potential for assisting in identifying quarry sites. Leslie and Trubitt accompanied Ouachita National Forest archeologists on quarry site visits in Oklahoma and Arkansas.

Supporting Other Stations

Katie Leslie assisted with various projects at other research stations, including working on the Elkins' Ferry Field Project with Carl Drexler (ARAS-SAU), assisting Elizabeth Horton (ARAS-TMRS) with ArcheOlympic activities at Toltec Mounds, working on the Spring Break Dig at the Taylor House with Jodi Barnes (ARAS-UAM), and assisting Jeff Mitchem (ARAS-PAR) in the field on the Parkin Cross Project.

HSU Research Station — Academic & Service Activities

Grants, Honors & Awards

- \$710 awarded by the Arkansas Archeological Society's Archeological Research Fund to Mary Beth Trubitt and Katie Leslie for "Dating Architecture from the 2014 Society Training Program Excavations" (for botanical identification and AMS dating of a sample from 3MN298 Structure 2).

Teaching & Higher Ed

- **Teaching & Advising.** Trubitt taught ANT 2023, Introduction to Physical Anthropology and Archeology (2 students) and ANT 4043, Readings and Research in Anthropology (1 student) during the Fall 2015 semester at HSU; ANT 4043 student Kalyn Duggan posted her final documentary, "Exploring Caddo Foodways," on YouTube (<https://www.youtube.com/watch?v=dV4xGcQY87A>). She taught ANT 4053/SOC 4063, World Cultures (38 students), ANT 2023, Introduction to Physical Anthropology and Archeology (2 students), and ANT 4083, Readings and Research in Anthropology (1 student) during the Spring 2016 semester at HSU. Trubitt advised an MLA student, and several other students needing independent study courses to finish their anthropology minors.
- **Other Service to HSU.** Trubitt served on the Department of Sociology, Human Services, and Criminal Justice search committee and attended other departmental meetings, and contributed comments to the proposal for a B.S. in Criminal Justice. Trubitt and Leslie curate the Joint Educational Consortium's Hodges Collection at HSU, with ongoing documentation and publication. Trubitt interviewed with HSU Public Relations about plans for the collection, and met with HSU administration about building renovation and exhibit plans; she advised HSU administration about consultation with the Caddo Nation, and provided updated inventories of ceramic vessels, artifacts on display, and human remains and associated artifacts.
- **Exhibits.** Leslie and Trubitt removed a display from HSU's Barkman House, and repurposed the exhibit case for a new set of rotating "Pieces of the Past" exhibits in Huie Library. Leslie installed new displays each month with materials from curated collections, focusing on: Howe Kiln excavations, the Sargent collection, Barkman House excavations, the Hoy Furr donation, Borderlands Project projectile points, Sargent collection net weights, Confederate script from HSU Museum collections, and Mississippi period farming.
- **Other Activities.** Guest lecture for Marvin Schultz's class at College of the Ouachitas in Malvern; assisted HSU biology professor Renn Tumison with information from student Joshua McIntyre's squirrel bone fluorescence project for the revised *Arkansas Mammals* book.

Professional Service

- **Committees.** Trubitt serves on the ARAS personnel committee, and as a member and chair of the Southeastern Archaeological Conference's Patty Jo Watson Prize committee. She accepted the nomination to run for editor-elect of SEAC's journal *Southeastern Archaeology* (and was elected).
- **Peer Reviews & Editorial Boards.** Trubitt provided peer-review for University of Alabama Press, the *Journal of Texas Archeology and History*, and for two National Science Foundation grant proposals. Trubitt currently serves on the editorial boards of the *Caddo Archeological Journal* and the *Journal of Texas Archeology and History*.

Public Service & Outreach

- **Programs & Presentations.** Leslie gave a talk at the Oaklawn Center on Aging in Hot Springs (audience 23) and led a tour of a novaculite quarry site (3GA22) to a group of students from University of Memphis and their professor, Dr. Ryan Parish. Trubitt presented a program at the Rick Evans Grandview Prairie Education Center in Hempstead County (audience 7) accompanied by a show-and-tell box and a copy of the Ouachita Chapter's *What's for Supper?* children's book on Caddo Indian foodways. Trubitt presented a talk to the Greater Hot Springs Village Kiwanis Club (audience 30) and hosted a visit to the station by a 4H group from Monticello.
- **Exhibits.** Leslie installed the Garland County educational banner in the Garland County Public Library, and the Clark County educational banner in HSU's Huie Library. Leslie worked with Ouachita Chapter members to create an Archeology Month display in the Garland County Library for March. Trubitt moved the Novaculite educational banner from the Caddo Valley visitor center for use by the Ouachita National Forest (Caddo/Womble Ranger District).
- **Media Outreach.** Trubitt and Leslie wrote a web article about the 2013–2014 Society Training Program excavations for the ARAS website. Trubitt also wrote articles for the ARAS website about a new novaculite quarry located in the Ouachita National Forest, and about the JEC Hodges Collection pottery documentation project. Trubitt provided information on Indians and local history to a journalist. Leslie and Trubitt administer a Facebook Page for the ARAS-HSU research station. Total Facebook page "likes" increased from 339 to 482 during 2015–2016.
- **Historic Cemetery Preservation Initiative.** Trubitt assisted a member of the Mount Tabor Cemetery (3DA656) preservation group; advised a Society member about a cemetery he recorded in Montgomery County; discussed a Saline County cemetery with a local resident and scheduled a visit; and responded to a question from a Garland County resident about several nearby cemeteries.
- **Consultation.** Trubitt taught a one-day lithics seminar as part of Forest Service Heritage Resource Technician Training at Camp Clearfork (30 participants), and a half-day Forest Service HRT Training workshop on prehistoric archeology and lithics for the Ouachita National Forest at Oden (30 participants); advised the U.S. Army Corps of Engineers at DeGray Lake on plans for several campgrounds known to have archeological sites; and advised the National Park Service's Midwest Archeological Center about a Hot Springs National Park site. Trubitt and Leslie advised Hot Springs National Park personnel on locations for soil moisture monitoring stations so as to avoid cultural features at 3GA22 and spent two days with volunteers conducting shovel testing and monitoring installation.
- **Other Public Service.** Trubitt and Leslie advised members of the public about rocks, artifacts, family artifact collections, Arkansas Indians, history, and archeological sites within the station's research territory; they accepted, documented, and curated two donations to the station; Leslie assisted with packing and moving a large donated collection from the Sargent family, and curated it into the ARAS-HSU station after it was documented by State Archeologist Ann Early; Leslie and Trubitt recorded an artifact collection from a site in Clark County; Trubitt visited another Clark County site with the landowners at their request; updated the site file for a Polk County site with information provided by the landowner; and visited a Montgomery County site following reports of erosion and damage. Four new archeological sites were recorded by station personnel during this fiscal year (in Clark, Pike, and Polk counties). Trubitt attended a meeting of the steering committee of the Camden Expedition Scenic Byway. Leslie assisted Historic Arkansas Museum personnel with photographs and artifact measurements for an upcoming update of their *Arkansas Made* volume.

Service to the Arkansas Archeological Society

- **Chapter Presentations.** Trubitt gave a talk to the Ark-Homa Chapter in Fort Smith (audience 6). Trubitt and Leslie attended the annual meeting in Springdale and presented papers.
- **Training & Certification Program.** Trubitt taught the Basic Excavation seminar during the 2016 Training Program at Richards Bridge (3CT11/22) in northeastern Arkansas and assisted with supervision in Area 1.
- **Ouachita Chapter.** Trubitt and Leslie attended monthly meetings of the Arkansas Archeological Society's Ouachita Chapter in Hot Springs. Katie Leslie served as newsletter editor until May 2016, when Trubitt assumed that role. Leslie was elected Chapter secretary in December 2015. Trubitt and Leslie administered the Chapter's Facebook Page. Total "likes" increased from 187 to 269 during 2015–2016.

Volunteer Hours

- Volunteers contributed 593 hours to station research projects in the field and laboratory during 2015–2016.

Southern Arkansas University Research Station, Magnolia



Personnel Changes

On October 1, 2015 Carol Colaninno left the SAU station to become administrator of the Survey's Sponsored Research Program, leaving the position of station archeologist vacant. Station assistant Carl Drexler acted as interim and was promoted to the position of station archeologist effective December 1. The process to hire a new assistant was begun, with the position to be filled for the 2016–2017 fiscal year.

Elkins' Ferry Battlefield Survey

Starting in 2014, the Arkansas Historic Preservation Program (AHPP), Nevada County Depot and Museum (NCDM), Arkansas Legislature, Civil War Trust, and numerous private citizens came together to purchase a 448-acre tract of land along the Little Missouri River containing a portion of the Elkins' Ferry battlefield. This engagement occurred April 4, 1864, and was one of the first major combat actions of the Camden Expedition, the last major military campaign in Arkansas during the Civil War. In support of the effort to improve the interpretation and aid in the preservation of the site, plus build the heritage tourism economy of Prescott and Arkadelphia, the

ARAS-SAU station conducted twelve days of fieldwork in the purchase tract, with assistance from the ARAS-UAM, -UAPB, and -HSU stations, plus 25 volunteers from across Arkansas and Texas.

The fieldwork, funded by the Arkansas Historic Preservation Program, consisted of systematic metal detector sweeps of large portions of the battlefield. We recovered 155 artifacts, many of which were battle-related. These ran the gamut from artillery ammunition to bullets, knapsack pieces to wagon parts. We were able to conclusively show that the purchased land contained a significant portion of the battlefield, and the artifact densities indicated the disposition of two U.S. Army infantry units during the battle, and the recovery of Confederate artillery ammunition in the vicinity suggests they were fired upon while occupying those locations.

Our work was quite successful in figuring out the disposition of archeological materials on the battlefield, and will aid AHPP and NCDM in furthering the development of Elkins' Ferry as a heritage resource and a support to the local tourism economy. It also developed the first data set in what will turn into a campaign-wide research effort, hopefully tying together

The Survey's research station in Magnolia is located on the Southern Arkansas University campus, where the station archeologist teaches in the School of Liberal and Performing Arts. The station is also helping to develop a new Southern Arkansas Museum on the campus. The SAU research station is responsible for the archeological resources of 11 counties in southwestern Arkansas. Station territory stretches from the southern edge of the Ouachita Mountains to the Arkansas/Louisiana state line, and incorporates the Great Bend region of the Red River. Among the important sites in SAU station territory are Crenshaw, the earliest known Caddo ceremonial center, and Historic Washington State Park, an antebellum town restored and interpreted by Arkansas State Parks and the Pioneer Washington Restoration Foundation.

Carol Colaninno (Ph.D., University of Georgia, 2010) is a specialist in zooarcheology. Over the course of her career, she has conducted archeological excavations and research in the Southeast, Midsouth, and Midwest, and the Caribbean. Carol's research focuses on understanding changes in human-animal interaction over deep history from some of the earliest archeological deposits in the eastern United States to more recent deposits documenting early interactions between American Indians and the first European settlers in North America. Carol served as the Director of Education at the Center for American Archeology from 2013–2014 where she oversaw various educational STEM-based archeological programming. In December of 2014, she joined the Arkansas Archeological Survey as the Station Archeologist at Southern Arkansas University.

Carl G. Drexler (Ph.D., The College of William and Mary, 2013) joined the Survey in 2011 after working for the National Park Service, Colonial Williamsburg Foundation, and U.S. Army Corps of Engineers. In his career, he has worked in the Caribbean, Mexico, and the U.S. Southeast, Southwest, Midwest, and Mid-Atlantic. He is an expert on conflict archeology, historical archaeology, and spatial analysis in archeological research.

Anthony Clay Newton (B.A., Southern Arkansas University, 2004) is a Magnolia native and a professional archeological technician who has worked for various cultural resource management companies on projects in Arkansas, Texas, Louisiana, Oklahoma, and Mississippi. Newton is interested in the archeology and history of southwestern Arkansas and the Ark-La-Tex region. He is also an accomplished photographer.

finds from across the Camden Expedition battlefields in coming years.

Wallace's Ferry Battlefield Survey

We built upon our previous field efforts at locating the Wallace's Ferry battlefield this spring. This engagement was small by Civil War standards, but significant in that the U.S. Army contingent on the field throughout most of the conflict was entirely African American. Previous research in 2011 and 2014 had ruled out places widely believed to be the site of the engagement, and started us toward finding the true location. By conducting a weekend of fieldwork on the site, we identified a discrete cluster of Civil War artifacts associated with the battle.

This work took place with the help of the Arkansas Archeological Society, U.S. Department of Agriculture's Natural Resource Conservation Service, and members of the community, and the support of the Arkansas Humanities Council. Based on the findings from this year's fieldwork and subsequent conversations with community members, a final round of



Flagged metal detector hits at Wallace's Ferry Battlefield (3PH497), Phillips County.



Society volunteers Don Bragg and Scott Akridge investigate metal detector hits at Elkins' Ferry Battlefield (3NE217).

fieldwork in the coming year should better develop the known limits of the battlefield and allow us to delineate troop positions and movements.

Civil War Archeology Exhibit at Arkansas State House

The State Capitol building in Little Rock hosts rotating displays on different aspects of Arkansas heritage and culture. Last year, it featured a display on Civil War archeology with display cases featuring research from around the state. Highlighted projects included the large-scale battlefield surveys at Pea Ridge, research on civilians on the Confederate home front at Dooley's Ferry, and African Americans fighting for their freedom and country at Wallace's Ferry, near Helena-West Helena.

Samuels-Turner House, Historic Washington State Park

The staff of Historic Washington State Park found a brick-lined well on the southeast edge of Washington in the fall of 2014. In the fall of 2015, the ARAS-SAU station hosted a weekend-long public excavation project at the site to study its occupational history and open a window on this relatively

unstudied corner of Washington, which includes one of the old African-American neighborhoods. The Samuels-Turner House was named for the daughters of Robert Samuels, an influential African American member of the Washington community who was also part of the founding of the Colored/Christian Methodist Episcopal Church.

The fieldwork brought in volunteers from around Washington and as far afield as Monticello, Arkansas. A group of undergraduate students from the University of Central Arkansas also joined us for a day. This was, for some, their first archeological dig of any kind. The project is still in the analysis phase at present.

Cemetery Research

We continue to work with several cemeteries around southwest Arkansas to aid with preservation and recordation activities. In the fall, we started a mapping project at the St. Paul Cemetery in Calhoun County. A similar effort took place at the Davidson Cemetery in southern Nevada County.

In May, we attended the Preserving African-American Cemeteries conference in El Dorado, and met many representa-

tives from cemetery boards throughout the area. We are glad to remain active in this area, and have assisted with various cemetery-related projects, ranging from helping locate unmarked graves to advising on the placement of fences.

Unexploded Ordnance Identification and Safety in Archeology

Working on battlefields carries an inherent risk of encountering unexploded ordnance (UXO). Plus, this territory was once host to the Southwest Proving Grounds, a major testing facility for World War II-era munitions located at the Hope Airport. The Proving Grounds once had the greatest density of unexploded ordnance of any former defense site in the United States, and despite several rounds of clean-up work, errant shells are still encountered in the area surrounding the former facility. The 1981 Arkansas Archeological Society Training Program at Washington Mounds located several in the site's footprint.

In the interest of safety for ARAS personnel and volunteers, Carl Drexler attended a workshop on munitions identification and safety at Oklahoma State University's School of Forensic Science in Tulsa, Oklahoma, during October 2015. This was both a chance to learn about the kinds of munitions present on WWII-era and other sites, and to build connections with bomb disposal technicians in the area who might have questions about historic ordnance (pre-World War I). Discussions during this workshop developed into a collaborative effort with Oklahoma State University to clarify the legal authority of state agencies, including the Arkansas Archeological Survey, to maintain unexploded ordnance (artifacts) prior to inerting. At the time of writing, this process is under review by the Office of the General Council of the Bureau of Alcohol, Tobacco, Firearms, and Explosives.

Somewhat related to this, in the spring, news broke of the discovery of a possible Civil War landmine near Danville, the handling of which involved the evacuation of numerous homes and destruction of the item in the Garland County Landfill, near Hot Springs. To ascertain the true nature of the find, Drexler and Elizabeth Horton (ARAS-TMRS) reexcavated the blast hole and recovered approximately 75% of the object, finding it to be a solid iron ball, broken into pieces, not a landmine. This work was valuable to the local police departments and bomb squads, who were concerned about there being more dangerous items in the Danville area. Our work helped allay those fears.

Collections and Records Management

Carol Colaninno worked with SAU student Ernest Turner to start re-boxing and organizing the Holman Springs collection from the 1985 and 1986 Arkansas Archeological Society Training Programs. This is one of the largest collections in our facility, and has yet to be substantively analyzed. The re-boxing and organization will aid in moving that research forward in the coming years.

Late in the fiscal year, we started the process of scanning and building digital databases of the station's records, which date back to its founding in 1968. This will cover everything from accession logs to photographic records and project excavation records. It is a large effort that will, ultimately, aid in preserving the scientific legacy of Frank Schambach, Jamie Brandon, and Carol Colaninno (the station's three previous research archeologists) as well as their many dedicated station assistants and volunteers. It will also facilitate the development of student and other research projects based on our collections for many decades to come.

Assisting Other Stations and Agencies

Station personnel assisted the University of Arkansas-Fayetteville and the ARAS Computer Services Program with the Pea Ridge National Military Park gradiometer survey in December. Additionally, we assisted the ARAS-UAPB station with fieldwork on the Tillar Archeological Project. Outside of the Survey, staff assisted the National Park Service Midwest Archeological Center with a metal detector survey of a Civil War battlefield at Arkansas Post National Memorial.

Student Projects

In December, Katherine Newman, a graduate student from Texas State University, returned material to us from the Washington Mounds (3HE35), which were excavated during a Society Training Program back in 1981. She continues to make progress towards a thesis defense of her work. John Samuelsen, a Ph.D. student at University of Arkansas-Fayetteville and staff member of ARAS-CSP, continued progress with research on the Crenshaw site (3MI6). David Markus's work involving the excavated material from the Block-Catts House (3HE236-19) at Historic Washington continues to advance, and his dissertation project at the University of Florida nears completion. Kelsey Taormina completed her thesis on architecture at the Ferguson site (3HE63), in Hempstead County, in July.

SAU Research Station — Academic & Service Activities

Grants, Honors & Awards

- \$3789 Major Grant to Carl Drexler from the Arkansas Humanities Council for fieldwork at Wallace's Ferry.

Teaching & Higher Ed

- **School of Liberal and Performing Arts, SAU.** Drexler taught ANTH/SOC1003, General Anthropology (10 students) and ANTH/HIST3143, North American Indians (25 students).

Professional Service

- **Professional Organizations.** Drexler served as Continuing Education Coordinator and member of the Academic and Professional Training Committee of the Society for Historical Archaeology.
- **Peer Review.** Drexler reviewed work submitted to the journal *Historical Archaeology*.
- **Boards and Committees.** Drexler served on the Board of Trustees of the Arkansas Historical Association and the Friends of the Arkansas History Commission (now Friends of the Arkansas State Archives).

Public Service & Outreach

- Both Colaninno and Drexler fielded questions on Arkansas archeology for the general public, ranging from examining pottery in private collections to documenting sites and discussing cultural resources management.
- **Programs & Presentations.** Drexler gave presentations to the Toltec Mounds Lecture Series (audience 40) and the Southwest Arkansas Genealogical Society (audience 10).
- **Social Media.** Our social media reach was formidable this year, showing expansion in our following on various platforms. Our Facebook Page has 698 subscribers as of 6/30/2016, an increase of 37% over last year. Our followers come from the U.S. and nine foreign countries. Our total reach was 28,686, with total engagement of 2949. Our Twitter feed has 292 followers with a reach of 827 and engagement statistic of 1.
- **Science Blogging.** Drexler participated in the "Grand Challenges" blog carnival, detailing difficulties and hurdles faced by different areas within archeology.
- **Consultation and Advisement.** Drexler met with the Preserving African-American Cemeteries group of El Dorado to discuss preservation support, and worked with the Coushatta Tribe of Louisiana on records from the Great Bend Survey.

Service to the Arkansas Archeological Society

- **Annual Meeting.** Drexler helped review conference venues and tours for the 2016 Annual Meeting held in El Dorado, Arkansas.
- **Training & Certification Program.** Drexler helped supervise Area 1 during the 2016 Training Program excavations at the Richards Bridge site in northeastern Arkansas.
- **Field Notes.** Drexler contributed a book review of *When the Wolf Came* by Mary Jane Warde (University of Arkansas Press) to the Society newsletter.

Volunteer Hours

- Volunteers contributed 630 hours to station research projects in the field and laboratory during 2015–2016.



Arkansas State University Research Station, Jonesboro

Transfer of Collections from the Blytheville Station

Claudine Payne's untimely death in 2013 necessitated the transfer of collections, furniture, shelving, and equipment from Blytheville to Jonesboro. From July to September, ASU station archaeologist Julie Morrow and other ARAS staff from around the state moved the archives and artifact collections from the former Blytheville research station (now closed) to the Jonesboro station at Arkansas State University. From 2000 to 2013 the Blytheville station conducted a number of important research, education, and public service projects in Mississippi and Crittenden Counties. These two counties are host to many of the state's largest and most complex archaeological sites because of their location in one of the most resource-rich areas of

our nation. Excavations supervised by the late Claudine Payne and her assistant Michelle Rathgaber (now a graduate student at the University of Arkansas-Fayetteville) have resulted in large artifact samples for understanding Mississippian lifeways and earthquake chronology in the New Madrid Seismic Zone (NMSZ). In particular, work at the earthquake-impacted Eaker site and 3MS105 have resulted in the accumulation of collections that are vital for understanding human-environment interactions in the NMSZ. Ongoing efforts to preserve and protect archival and material culture collections from major excavation projects in these two counties include the completion of an inventory of the Blytheville station collections that were transferred to the Jonesboro research station.

The Jonesboro research station is located on the Arkansas State University campus, where the station archeologist teaches in the Department of Criminology, Sociology, Geology and Social Work. The ASU research station territory includes 15 counties of northeastern Arkansas. American Indian cultural development from 12,000 B.C. to historic times and early Euroamerican settlements are represented in the archeological record. Among the well-known sites are the Dalton period Sloan site—the oldest known cemetery in North America—and the King Mastodon, which was featured in *National Geographic* magazine. A large number of sites date from the scientifically critical transition that occurred about 10,000 years ago between the Ice Age (Pleistocene) and modern (Holocene) climatic regimes. Geographically, the ASU station incorporates the eastern border of the Ozark Plateau and the vast lowland areas of the Mississippi River basin and its tributaries. Station territory thus provides ideal natural laboratories for the study of diverse adaptations in Arkansas prehistory.

Juliet Morrow (Ph.D., Washington University in St. Louis, 1996) is the Survey's Research Station Archeologist for ASU/Jonesboro, and Research Professor of Anthropology, University of Arkansas – Fayetteville. Prior to joining the Survey in 1997, she had a position with the Office of the State Archeologist of Iowa's Highway Archeology Program, and worked for various private research firms and the U.S. Army Corps of Engineers. Morrow's background in earth sciences provides expertise in geoarcheology, geomorphology, and site formation processes. Much of her archeological research has focused on the Paleoindian period and multidisciplinary studies of hunter-gatherer lifeways, stone tool technology, and Pleistocene/Early Holocene ecology.

Sarah Stuckey (B.S. in Physics, Arkansas State University, 2013) was hired as station assistant beginning January 2014. She had worked as a volunteer at the ASU station for several years. Her Capstone project, under Morrow's direction, explored the use of FTIR (Fourier transform infrared spectroscopy) for sourcing Burlington chert, an important lithic raw material that was quarried from many locations.

Paleoindian Research and Publications

In April 2016, Julie Morrow co-organized and co-chaired a symposium on the peopling of the New World at the Annual Meeting of the Society for American Archaeology. She brought an international group of scholars together to present papers about the archeology of Ice Age foragers in light of recent genomic (or DNA) studies published in *Science* and *Nature*. The symposium was a springboard for journal publication of manuscripts. Morrow's contribution to the understanding of the peopling of the New World is a manuscript conceptualizing the origins of the Clovis techno-complex, which she plans to add as a chapter of a book she has been working on for several years. Clovis origins have been elusive because the evidence is sparse and the geographic expanse covered is extreme—from Alaska to the southern cone of South America. DNA and archeological evidence indicate that the Clovis techno-complex or culture postdates the earliest sites in Alaska (eastern Beringia), and the manuscript she is preparing is about Clovis people's adaptive strategy as a response to a shrinking resource base as they migrated across the New World.

Closer to home, at the request of the Natural Resources Conservation Service and Corps of Engineers, Morrow provided information regarding the potential of buried sites, including paleontological sites, in various areas of Arkansas. This could include sites relevant to the earliest period of human occupation in the state, so far as we know, the Clovis culture.

Webb Mounds (3CG29)

Julie Morrow works with preservation organizations, students, government agencies, and concerned citizens to protect and preserve sites in northeast Arkansas. As part of this service, she has monitored a number of significant sites for the past 19 years, including the Webb Mounds site. In January, she responded to a request to assist students and their social studies teacher from Nettleton High School in Jonesboro with the production of a video about The Webb Mounds site, one of northeast Arkansas's few Native American sites listed on the National Register of Historic Places. Located near Jonesboro, the exact size of this site is unknown, but the Native American village covers more than 10 acres of row crops. Portions of the site have been destroyed by past road construction and earthquakes. The site is typically planted in cotton. In the late nineteenth century, archeologists associated with the Smithsonian Institution recorded the presence of five mounds at the site. By 1964 there were only two mounds remaining and they were arranged on a north-south line. The north mound is still steep, square-based, and roughly 20 feet tall. The summit was not as large in area as the south mound and this is still the case. The south mound was described to be twice as big at the base compared to the north mound, with a larger flat summit. Over the years, the landowner and tenant farmer have graciously granted access to the Arkansas Archeological Survey so that Morrow could steward the site and learn.



A view of the Webb Mounds site (3CG29) looking southwest.

In addition to the mounds and village at the Webb Mounds site, there is also a sharecropper cemetery in the field at the base of one of the mounds. These mounds are not the only Native American mounds in Craighead County, but they are one of the more well-known mound sites because they are visible from Interstate Highway 555.

The people who built the mounds were members of a generalized culture and lifeway known as “Mississippian.” Depending on the time period and geographic region, Mississippian people lived in various sized sites ranging from an acre or two with several dwellings to well-planned villages that measure 80 acres or more. Large villages, like the Webb Mounds site, often contain the remains of dozens of wattle and daub houses beneath the farm fields. The Native Americans whom archeologists refer to as the Mississippians innovated ceramic technology by adding crushed shell to clay prior to firing it and used their ceramic containers and other media—shell, copper, wood—to render symbols that communicate their identity and world view. As did their predecessors in the Late Woodland period, they built monumental earthworks (like Webb Mounds), farmed, hunted, and held religious ceremonies. In addition to maize, they produced some indigenous crops that are no longer grown in the region today. Animal protein sources including deer, turkey, fish, and small mammals were key components of their diet.

Student Sophie Copelin from Nettleton High School asked Morrow in a videotaped interview about the site, “Why is it important that people be educated on the Mounds and other historical sites in our area?” She answered:

Because the mounds and many other kinds of archeological sites offer the opportunity to learn about the people who created them. American culture today is like a soup where the broth is fusion of cultures. Many medicines, words, and customs in modern American culture can be traced to indigenous societies and quite a number of Arkansans have Native American ancestors. By studying history through archeology, we have an opportunity to learn about the past. Learning about how Native Americans lived can help us solve some of the world’s most pressing problems including how to educate our youth, maintain health and wellness, make agriculture more sustainable, and improve our environment. Archeology offers clues to understand the present and move us toward a better future.

Morrow has requested a copy of the video from Nettleton High School so that it can be considered for posting on the Arkansas Archeological Survey’s website.

The Graddy site

In April, Julie Morrow received an email from a concerned citizen regarding exposure of archeological deposits at a previously recorded site in Clay County. The Graddy site (3CY258) was originally mapped as a very large site in a dune field of the Cache River bottoms. It probably consisted of a series of human habitations dating from at least as early as the Dalton period, ca. 12,400 years ago, up to the Middle Mississippi period. Former station archeologist Dan Morse salvaged selected artifacts from three pit features at the site in 1984. Volunteer Robert Taylor recorded ceramic attributes on the sherds from Morse’s salvage, which suggest periodic occupation of the site between AD 800 and 1300. In a collaborative effort with the landowner and farm

manager, personnel from the ARAS-ASU research station are working to excavate the remaining features in the last relatively intact area of this once very large site. Artifacts recovered to date indicate that in addition to the Mississippi period, people once occupied the site during the preceding Woodland period. The site is considered to be very important in understanding demographic shifts and the human response to environmental change ca. AD 1350. Morrow corresponded with the NAGPRA coordinator of the Quapaw Tribe regarding potential for human skeletal remains at the site based on oral history and ASU site file information.

Old Town Ridge (3CG41)

During the fall and summer, Morrow continued to monitor the earthquake-impacted Old Town Ridge site near Monette, Arkansas. In February, the importance of the site to the history of the region was conveyed at an on-site meeting with the farm management team from Monette. Correspondence among all interested groups, including the landowners, Native American tribes, as well as local site stewards regarding the status and condition of this site has proven effective in preserving this Middle Mississippi period occupation. Although there are earlier pre-Columbian occupations defined at the site, the 19-acre farming village ca. AD 1250 to 1400 was the subject of a remote sensing study between 2008 and 2010. Components of the Old Town Ridge project include the completion of remote sensing, which indicates the presence of anomalies that are consistent with Native American structures very similar to those excavated throughout the Central Mississippi Valley (CMV), in addition to a well-defined palisade wall.

The CMV encompasses portions of five states: northeast Arkansas, southeast Missouri, western Tennessee, western Kentucky, and northwest Mississippi. Collections research specific to the Old Town Ridge Project includes lithic raw material studies, ceramic studies, and assessment of research potential. The ceramic studies involve attribute observation and computer coding of Mississippi period ceramics in northeast Arkansas and southeast Missouri by volunteers since 2008. By documenting details such as the materials added to the clay prior to firing (temper), variations in decoration (i.e., lip notching or “nicking” primarily on shell-tempered ceramic vessel rim sherds), and determining the original vessel shape and size, site 3CG41 can be more accurately placed within the time-space grid for the northeast Arkansas region and the greater Mississippi Valley ecosystem.

Local residents have donated small collections of ceramic, stone, and bone artifacts that have shed light on patterns of trade and interaction in the CMV. The research on the Old

Town Ridge site, as well as the region, is of great interest to archeologists, paleoseismologists, and other scientists working in the central and southeastern United States, and Julie Morrow is currently assembling a team of researchers from several institutions to help investigate the site’s possible abandonment, at around AD 1400.

Richards Bridge (3CT11/22)

As part of the Arkansas Archeological Survey/Society’s annual Training Program, held in 2016 at the Richards Bridge site near Parkin, Julie Morrow conducted a study of a large oval feature in Area 6. The feature was first explored by trenching during the 2015 Training Program, when Morrow briefly profiled a section of the trench that was excavated to expose deposits. The large oval pit resembled a borrow pit, likely excavated for Woodland or Mississippi period mound construction. Between AD 1200 and 1400 a large number of mounds were built at medium and large-sized towns in the Mississippi Valley. Local residents report the past presence of a mound to the north of the village at the Richards Bridge site. Society Training Program director Jeff Mitchem (ARAS-Parkin) wanted to know the age of the pit, and, if it was indeed a Mississippi period borrow pit, then how long did it take to fill it back in?

In June 2016, Morrow directed and monitored selective trench excavations to determine the age and cultural affiliation of the borrow-like feature and study the formation processes of the large feature. She taught volunteers how to clean-scrape trench walls with hand tools in order to observe stratigraphy and horizonization. ARAS staff and Society members helped Morrow recover artifacts and sediment samples from the feature (“floating” within sediments) and document residues of human activity. Possible post molds and other cultural features were removed for processing, identification, and analysis. Features observed in the floor and walls of the trench indicate multiple fill episodes suggesting that the large pit probably started as a smaller pit and became successively larger over time. One artifact at the bottom of the large feature, a strap handle from a shell-tempered ceramic jar, suggests that people during the Mississippi period were disposing of a small amount of trash in it. Animal bone fragments, pottery sherds, and other datable artifacts were recovered for radiocarbon analysis to accurately assess the construction and human use of the feature. Several features were encountered during the profiling of trenches in Area 6, including a large portion of a poorly fired shell-tempered ceramic vessel at the bottom. Based on observations and data gathered so far the feature appears to have been re-used as an animal corral during the historic period.

Julie Morrow with backhoe operator at the 2016 Training Program, where she coordinated work on a large trench to investigate a possible borrow pit feature. This work illustrates the cooperative efforts of professional and volunteer archeologists with State Parks and landowners to learn about the age and function of what may be the largest single Mississippian feature ever examined in northeast Arkansas.



Julie Morrow helps visitors during an Archeology Month “Artifact ID Day” at Parkin Archeological State Park.

ASU Research Station — Academic & Service Activities

Teaching & Higher Ed

- **Teaching & Advising.** Morrow taught Introduction to Archeology (15 students) and Native American Cultures (3 students) during the 2015–2016 academic year in the Department of Criminology, Sociology, Geology and Social Work at ASU. She also provided various assistance to students at ASU, including letters of reference, assistance to a student in the Heritage Studies Ph.D. program, and help with independent study topics.
- **Other Campus Assistance.** Morrow gave a tour and talk about northeast Arkansas archeology to a prospective ASU faculty member, and gave instruction on how to construct an archeological lesson plan to an education department student.
- **ASU Museum.** Morrow planned the Archeology Day event with ASU Museum staff that is held during March for Archeology Month.

Professional Service

- **Peer Review.** Morrow reviewed works submitted to the journal *Geoarcheology*.
- **Boards & Committees.** Morrow served as a member of the Survey's Publications Committee.
- **Organizations.** Morrow organized and co-chaired a symposium called "After Anzick" at the 2016 annual meeting of the Society for American Archaeology in Orlando, Florida.

Public Service & Outreach

- **Programs & Presentations.** Morrow gave public talks at an Earth Sciences Department Colloquium at the University of Missouri (audience 30) and at the Cleburne County Historical Society in Heber Springs (audience 50)
- **Public Schools.** Morrow assisted three students and a teacher from Nettleton High School who made a video about the Webb Mounds site (3CG29); she visited the site with them and provided an interview for the video. Morrow served as judge for junior and senior high school students' geology and atmospheric sciences posters in the Northeast Arkansas Regional Science Fair.
- **Historic Cemeteries Initiative.** Morrow continued to provide assistance to local groups working on preservation of historic cemeteries in northeast Arkansas.
- **Other Public Outreach.** Morrow participated in an Artifact ID Day at Parkin Archeological State Park. Morrow provided consultation about exhibits to Cleburne County Historical Society and the ASU Museum. Station staff responded to approximately 54 citizen contacts, identifying artifacts, visiting sites at landowner request, and discussing or providing information about archeology.

Service to the Arkansas Archeological Society

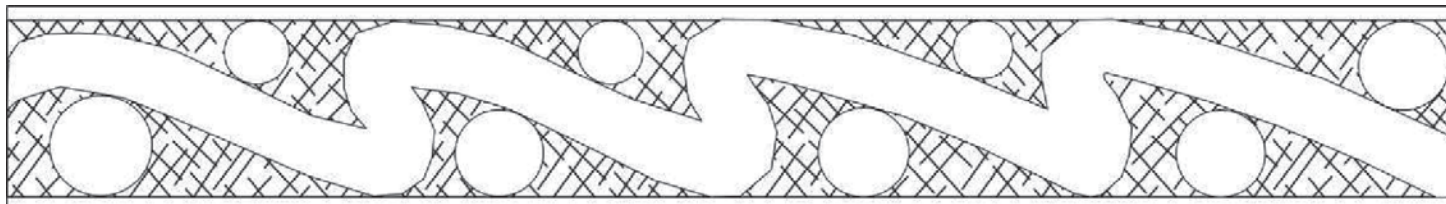
- **Programs & Presentations.** Morrow gave two public talks to the Central Mississippi Valley Chapter in Jonesboro (combined audiences about 50).
- **Training & Certification Program.** Morrow and Stuckey both attended the 2016 Training Program at the Richards Bridge site in northeastern Arkansas. Morrow directed excavation and study of a geostratigraphy trench in a large feature that was probably a borrow pit in Area 6, and Stuckey assisted with supervision of one of the excavation areas.
- **Central Mississippi Valley Archeological Society.** Morrow arranged guest speakers for the monthly meetings and publicized the meetings. Volunteer opportunities are provided in the station lab and field projects. In March, Julie Morrow called on volunteers to formalize the CMV, founded in 1998, as a Chapter of AAS. Three people stepped up to serve as president. Morrow held a meeting with ARAS staff and two of these volunteers and worked on bylaws, using the Arkansas Archeological Society Bylaws as a model.

Volunteer Hours

- Volunteers contributed 925 hours to station research projects in the field and laboratory during 2015–2016.



Coordinating Office Reports





The State Archeologist, Ann M. Early, Ph.D.

Ann Early (left) talks with volunteers and visitors at an annual meeting of the Arkansas Archeological Society.

The duties of the State Archeologist involve all aspects of public archeology, from site reporting to liaison with the public agencies to public education and outreach programs. These activities include preservation planning, review of nominations of archeological properties to the National Register of Historic Places, and establishing guidelines for archeological research in the state. Information on state laws pertaining to archeological sites in Arkansas is available from this office. The State Archeologist also oversees the Survey's Education Program, which produces a variety of materials such as books, exhibits, and informational flyers for teachers, students, and the general public, and works closely with the Arkansas Archeological Society, an active organization of amateur archeologists, on such projects as the annual Training Program and Archeology Month.

Ann M. Early (Ph.D., University of Massachusetts – Amherst, 1973) is a Research Professor of Anthropology at the University of Arkansas – Fayetteville, and is the second person to serve as State Archeologist for Arkansas. She was hired to the position in 1999 after 27 years as Survey research station archeologist at Henderson State University. Early is the author of numerous books and articles on Arkansas archeology. Her research has focused on human ecology in the uplands of the Trans-Mississippi South, Caddo Indian cultural traditions and relationships, Caddo pottery design and typology, and the effects of Euroamerican cultural perceptions on popular images of the past. As State Archeologist, she has been active in historic cemetery preservation initiatives, among many other projects.



Ann Early supervising students as they process a donated collection in the Survey lab

Contacts

- Ann Early responded to 412 requests for advice, assistance, or information from professional archeologists, land managers, CRM firms, and others.
- 69 research related contacts with professional colleagues
- 199 consultation and advisement contacts on preservation related activities
- 122 contacts with members of the general public
- 22 contacts with individuals in the Higher Education community

Teaching & Higher Ed

- Ann Early served on several UAF anthropology graduate student committees, and advised and assisted with student research.
- Early supervised about 25 students working in the ARAS laboratory on collections management as volunteers and on various class projects; student volunteers contributed about 500 hours to processing 50,000 items in the Sargent Collection, most of which will be curated at the ARAS-HSU and -WRI research stations.
- Early advised students on protocols for access to Survey records and collections for research projects.

Public Archeology

- **Public Outreach.** Early responded to requests for information and/or assistance from the public (individuals or organizations) concerning archeology.
- **Arkansas Archeological Society.** Early taught the Site Stewards workshop and Beginner's Orientation at the Training Program, and gave a talk to the Ouachita Chapter in Hot Springs (audience 30).
- **Programs, Presentations & Exhibits.** Early gave a talk to the South Arkansas Historic Preservation Society (audience 25).

Records & Collections Management

- **Sargent Collection.** Ann Early supervised the accession and cataloging of this large donated artifact collection, with the work performed almost entirely by student volunteers who contributed about 500 hours over the course of eight months to a year. Fifty thousand items, including 120 whole ceramic pots, and lithic artifacts (except for about 700 “net sinkers”) have now been processed. The material will be curated in the ARAS-HSU and ARAS-WRI stations, for research, exhibits, and teaching. The “net sinkers” will be separately analyzed and have the potential to contribute to

an “unsolved mystery” of prehistoric material culture, i.e., what was the actual function of this artifact class? If indeed they were part of an ancient fishing technology, the information will contribute to ARAS-HSU station archeologist Mary Beth Trubitt’s ongoing research into the Middle Archaic foodways and economy of the Ouachita River valley environs.

- **Other Collections.** Early supervised documentation of the Belle Meade collection from University of Memphis, under the NAGPRA grant, and documented and distributed the East site pottery donation. She also advised the ongoing ARAS project to systematize and digitize 50 years worth of records and collections documentation across the organization.
- **NAGPRA Inventories.** Early supervised activities under a NAGPRA Documentation Grant (\$63,000) she received from the National Park Service; she organized and chaired a NAGPRA consultation meeting as part of this.
- **Permission Requests.** Early responded to 27 requests to re-use or re-publish Survey text or graphic products.
- **Loans.** Early monitored loans of artifacts and supervised loan requests and returns, or collections accessions, with the following institutions: Texas Tech, UCA, Minden LA Museum, UA Department of Anthropology, ARAS-SAU, Hampson Museum State Park, Arkansas State Parks, University of Memphis.

Cultural Resource Management

- **Project & Permit Reviews.** Early reviewed all Federal grant applications, Corps of Engineer Permit Requests, Arkansas Historic Preservation Program Section 106 letters, Arkansas Grant Proposal Clearinghouse lists, and contract reports for work done in Arkansas. She provided input and advice to AHPP staff members as requested.

Professional Service

- **Organizations.** Southeastern Archaeological Conference, Past President and C. B. Moore Award Committee Chair.
- **Boards & Commissions.** National Association of State Archeologists (Vice-President); State Review Board for Historic Preservation (Member and Secretary); Arkansas Genealogical Society (Board member); Arkansas Women’s History Institute (Board member).
- **Peer Review.** Early reviewed an article submitted to a peer-reviewed journal; proofed issues of the Arkansas Genealogical Society’s journal; and reviewed two article drafts for the *Encyclopedia of Arkansas History & Culture*.
- **Committees.** ARAS Web Steering Committee.

Research Projects

- Ceramic analysis for ARAS-SRP report on Wild Violet site (3LO226) excavations
- chapter on Arkansas Indians for *Arkansas Made*, vol. 3, issued from the Historic Arkansas Museum and the Arkansas Times
- wrote memorial resolutions for Charles R. McGimsey and Hester A. Davis for the Southeastern Archaeological Conference
- contributed text and illustrations for the Survey’s re-designed website
- presented papers at the 58th Caddo Conference and the Arkansas Historical Association 75th Annual Conference

Volunteer Hours

- 518 hours donated to work on the Sargent Collection under Early’s supervision
- 80 hours donated to work on the Belle Meade Collection (University of Memphis) under Early’s supervision



The Survey Registrar

Managing the State's Archeological Site Files

The registrar's office spends most of its time reviewing and encoding site forms, reports, and images for the various electronic databases, reviewing accession paperwork, evaluating and curating new archeological collections, and reviewing and encoding the paperwork associated with collections.

The **AMASDA** (Automated Management of Archeological Site Data in Arkansas) database is a potent research tool that can be linked to various GIS programs. Entering data daily keeps this resource current. This year **513** new sites were recorded, bringing the total for the state of Arkansas to **48,284**. New information for **396** previously recorded sites (revisited by various persons during the year) was also added. New archeological projects numbered **224** this year, bringing the total projects listed in AMASDA to **6946**. Finally, **22** archeological collections were accepted for curation.

Arkansas Archeological Survey Site File Activity, 2015–2016

New Sites Recorded	513	Total no. of sites in Arkansas site files: 48,284
New Data for Known Sites	396	
Access to Site Records	210	52 paid subscribers; 11 students & researchers; 112 State & Federal; 35 on site
Collections Accessioned	22	
New Projects Entered in AMASDA	224	Total no. of projects in AMASDA: 6946

The Survey Registrar is responsible for reviewing, processing, and curating all archeological site data in Arkansas. The registrar manages and maintains all paper, photographic, microfilm, and electronic records of archeological sites, projects, and collections; oversees encoding of all new and updated site information in the various digital databases; and assists and regulates access to records and collections by government agencies, private firms, professional colleagues, and students engaged in archeological research in Arkansas. The office also maintains a research library and a map library, and participates in the Survey/UA Department of Anthropology student internship program.

Lela Donat (M.A., University of Arkansas, 1992) became Survey Registrar in 1994, after three years as assistant registrar and a previous 17-year career in nursing. Her degree specialization was bioanthropology. Donat is proficient in the use of database applications and has archeological and bioanthropological field and laboratory experience in Arkansas and Chile.

Teka McGlothlin (M.A., University of Arkansas, 2014) was hired as Assistant Registrar in July 2014. She has worked in the office since 2008, first as a part-time work-study student, and later under various grant-funded projects while completing her Master's degree. Teka's studies have focused on antebellum historical archeology, cultural interaction and settlement, and the use of ArcGIS as a way to represent patterns in archeology.

Jessica Howe Cogburn (M.A., Southern Illinois University at Carbondale, 2011) is a native of Little Rock, Arkansas and became a member of the Arkansas Archeological Society in 2005. She joined the Survey in August 2008 as the station assistant for the ARAS research station at the UA Monticello campus. Since August 2014 she has been a graduate student at the University of Arkansas. As the Survey's graduate assistant in Fayetteville, she has been working on a database for the State Historic Preservation Office regarding archeological site eligibility for the National Register of Historic Places. Her dissertation research focus is on late prehistoric and protohistoric sites in the Central Arkansas River Valley. She will be analyzing collections from a number of sites in this region, primarily focusing on the Isgrig site (3PU15), which is located south of Little Rock.

Sarah Hunt Shepard (M.A., University of Arkansas, 2016) recently completed her Master's degree in anthropology at the University of Arkansas. She has been a member of the Arkansas Archeological Society since 2010, and has worked for the Survey for several years. Sarah continues to work on updating and maintaining the Survey's NAGPRA compliance and is helping to update the AMASDA database as well as site files. She is also contributing to the project begun recently to digitize station records.

Katherine Sargent is an undergraduate student at the University of Arkansas, currently pursuing a B.A. with a major in anthropology. She has been a member of the Arkansas Archeological Society since 2013. Her project in the Registrar's office involved updating and streamlining the inventory of artifacts curated by the Survey. She also assisted with digitizing large maps and drawings for AMASDA using the large-format scanner.

Assistance to Researchers & Agencies

Another major function of the office is assisting private archeological contractors, state and federal agencies, University of Arkansas faculty, staff, and students, the 10 Survey research stations, and others performing legitimate research in the state.

The office fielded approximately **192** requests for site information during FY 2015–2016 via in-house visit, telephone, email, or fax. These contacts are primarily from the Arkansas Highway and Transportation Department, the State Historic Preservation Office, the U.S. Army Corps of Engineers (Memphis, Vicksburg, and Little Rock Districts), the Natural Resources Conservation Service, and the Ozark-St. Francis and Ouachita National Forests. Responses were by email, fax, telephone, or post, in addition to helping visitors in person. In the course of the year, the registrar's office also assisted about **59** private firms doing research in Arkansas. A list is provided on page 82.

Contractors now have access to AMASDA Online (as of July 5, 2015). The current fee schedule is \$50 per project or \$1200 per year. An "Access to Records" must be submitted for each project. The fees will help pay for updates to servers and equipment for the AMASDA database to keep it functional and continue its serviceability to our various users. For the 2015–2016 fiscal year, we had **48 per-project and four annual subscribers**. Thirty-five contractors visited the office.

Teaching Service

The registrar's office conducts tours of its facilities for students enrolled in "Approaches to Archeology" classes at UAF during the academic year. Office staff also assisted students (undergraduates, master's students, and Ph.D. candidates) with their respective projects for class work or thesis research. This year student researchers included Renee Erickson (University



Lela Donat, Survey Registrar.

of Oklahoma, Master's thesis); Cynthia Collins (Missouri State University, a project on intrasite variability along War Eagle Creek); Mariah McElroy and Leah Morse (undergraduates at University of Arkansas (a project using Montgomery County artifacts from the Sargent Collection); Shelley Hobbs (University of Memphis, spatial analysis of site distribution along the Mississippi River from AD 900–1500 using GIS); Nicole Kusniez (University of Oklahoma, Master's thesis); Ryan Reynolds (University of Arkansas at Monticello, a project studying novaculite in southeast Arkansas); Paula Long (University of Central Arkansas, the Bowman site); Katherine Sargent (undergraduate at University of Arkansas, site distribution in the Ouachita Valley); and Stephanie Sullivan (doctoral candidate at University of Arkansas, a geospatial survey of the Collins Mounds site). The number of students using Survey records has steadily increased.

The Survey employed two UA anthropology graduate students in the registrar's office, Sarah Hunt Shepard and Jessica Howe Cogburn, and one hourly undergraduate student, Katherine Sargent.

NAGPRA Functions

Sarah Hunt Shepard worked with State Archeologist Dr. Ann Early to prepare *Notices of Inventory Completion* for the Arkansas Archeological Survey, and scanned burial inventories. This project was completed.

Eligibility of Sites

Jessica Howe Cogburn continued to add information to our AMASDA database regarding the eligibility of sites for the National Register of Historic Places, as determined by the

State Historic Preservation Office. Fields include: Site National Register Eligibility, AHPP Tracking Number, and Date of Determination.

Inventory Management of Curated Artifacts

A new project is creation of an inventory control database to provide the location of artifacts in the curation room. This database will be classified by row, bay, and shelf or container. *Inventory* can be searched or sorted by location, accession number, project name, and/or site name.

Funded Research

The Registrar's Office pursues outside funding to support several projects for upgrading and improving database delivery and collections management.

ANCRC 15-02. A \$34,356 grant from the Arkansas Natural and Cultural Resources Council in 2014 allowed the registrar's office to start digitizing archeological reports in its library. As of March 2016, all the archeological reports had been scanned—a grand total of 9489 documents.

ANCRC 16-02. An award of \$20,396 from the Arkansas Natural and Cultural Resources Council allowed the office to continue scanning old catalog cards dating from the late 1960s and early 1970s. In addition, several project records from the ARAS-WRI and ARAS-UAM research stations that needed to be duplicated for backup are also being scanned.

Collection Rehabilitation. The Survey houses several Corps of Engineers and Forest Service collections that need to be brought up to current curation standards. A grant of \$2700 was received from the Little Rock district of the Corps for some of their collections, and this project was completed.

The Registrar's Office provided assistance to the following firms, groups & agencies during 2015–2016

Federal

Buffalo National River, Harrison, Arkansas
Bureau of Land Management, Jackson, Mississippi
Corps of Engineers – Memphis, Little Rock, Vicksburg, and St. Louis Districts
National Park Service / Midwest Archeological Center
National Center for Cultural Resource Stewardship & Partnerships / National NAGPRA Program
Natural Resources Conservation Service, Little Rock
U.S. Fish & Wildlife Service
U.S. Forest Service

- Ouachita National Forest
- Ozark-St. Francis National Forests

State

Arkansas Highway & Transportation Department
Arkansas History Commission
Arkansas Historic Preservation Program
Arkansas Department of Parks & Tourism – State Parks
Arkansas Army National Guard
University of Arkansas

Out of State Museums and Universities

University of Memphis
Missouri State University

American Indian Tribes

The Quapaw Tribe of Oklahoma
The Caddo Nation – Binger, Oklahoma
The Osage Nation – Pawhuska, Oklahoma
The Choctaw Nation of Oklahoma
The Cherokee Tribe

Private Firms

- 10,000 Lakes Archaeology
- AArcher, Inc.
- AMA Terra Environmental
- AMTEC (Knoxville, TN)
- AK Environmental
- Algonquin Consultants, Inc.
- American Resources Group
- Arcadis
- AR Consultants
- Archaeological Research Center of St. Louis, Inc.
- Archeological Assessments, Inc. (AR)

- Archeological Environmental Consultants, LLC (TX)
- Archeology Mississippi, Inc.
- Atkins
- Blanton and Associates
- Burns & McDonnell, Kansas City
- CDM Smith
- C-Dimensions, TX
- CenterPoint Energy
- Center for Archaeological Research
- Centus Environmental Solutions, LLC
- CH2M Hill
- Coastal Environments Inc., Baton Rouge
- Cox/McLean Environmental Consulting, Inc.
- Cultural Resource Analysts, Inc.
- Deep East Texas Archeological Consultants
- Earth Search of New Orleans
- EBI
- EMR
- Environmental Research Center of Missouri
- Environmental Corporation of America
- Environmental Resource Management
- Enercon Services
- Flat Earth Archeology (AR)
- Garver
- Goodwin and Associates
- Historic Preservation Associates (AR)
- MACTEC (TN)
- Natural Resource Group
- Open Range Archaeology
- Panamerican Consultants of Memphis
- Peregrine Environmental (TX)
- Quality Services
- R. Christopher Goodwin and Associates
- Red River Archeology
- Seas Dimensions, Inc.
- Search, Inc.
- Sphere 3 (TX)
- Stone Point Services
- SWCA
- TerraXplorations
- Terracon
- Tierras Antiquas Archaeology
- TRC Environmental Corp.
- TRC Solutions, Atlanta, GA
- William Self Associates
- URS

Sponsored Research Program



Personnel Changes

ARAS-SAU research station archeologist Carol Colaninno transferred to Fayetteville in October 2015 to become the Survey's Sponsored Research Program Administrator. With a strong background in development of educational outreach materials incorporating archeological information and case studies, Carol initiated a collaborative effort involving several other staff members, including Jodi Barnes (ARAS-UAM), Elizabeth Horton (ARAS-TMRS), and Emily Beahm (ARAS-WRI), to develop a series of 5th grade social studies lesson plans organized around the evolution of Native American and Early American foodways. To support development of this STEM-based "Gathering, Gardening, and Agriculture" curriculum, Carol spearheaded the submission of grant applications to the Arkansas Humanities Council, the Southeastern Archaeological Conference's Public Archaeology program, and the Arkansas Archeological Society's Bill Jordan Educational Fund, securing a total of \$10,290 in funding. Considerable progress was under way when Carol was recruited by the Southern Illinois

University at Edwardsville's STEM Center, where she accepted an offer to serve as their Outreach Coordinator and Assistant Research Professor as of February 26, 2016. We wish Carol the best of luck in her new position.

ANCRC Projects

The Arkansas Natural and Cultural Resources Council provided generous funding in support of several ARAS projects contributing to the preservation and enhancement of state cultural and historic resources. More details about some of these projects are provided in other sections of this Annual Report.

Looney Tavern and Rice House (08-002)

By prior agreement, after excavations in 2008 and 2009 at the Rice House (3RA466) and the Looney Tavern (3RA468), all artifacts found by ARAS staff were to be turned over to Black River Technical College for exhibits and teaching. Kathleen Cande worked to complete the processing and analysis of artifacts from excavations beneath both the Rice House and

The Sponsored Research Program (SRP) conducts externally funded research based on grants, contracts, and cost-share agreements. Projects range in scope from field documentation of cultural resources in Arkansas, to information and collections management activities, to assisting with the study and interpretation of sites on state and federal lands in Arkansas. With their wide-ranging skill sets, including archival research, all phases of archeological fieldwork, flotation and soil sample processing, survey and precision mapping, geophysical imaging, production of CAD and other computer graphics, historic and prehistoric artifact analysis, data interpretation, and report writing, SRP staff members are invaluable contributors to station research projects, emergency salvage operations, grant-funded research, specialized laboratory and computer tasks, cost-share projects, consulting, and public outreach. To date, SRP has completed more than 1000 projects. SRP service to the university community includes teaching, membership on graduate student committees, and providing employment opportunities for qualified students as field and laboratory technicians.

Carol Colaninno (Ph.D., University of Georgia, 2010) was hired as the Research Station Archeologist at SAU in Magnolia in December 2014, and transferred to the coordinating office in Fayetteville as administrator of SRP in October 2015. She is a specialist in zooarcheology and was the Director of Education at the Center for American Archeology from 2013–2014 where she oversaw various educational, STEM-based archeological programming. Carol left the Survey for another position in February 2016.

Kathleen H. Cande (M.A., University of Arkansas, 1984) works as a Survey Project Archeologist. She joined the Survey in 1987. Her specializations include historical archeology, material culture, archival research, the colonial Southeast, collections management and curation, and prehistoric lithic analysis. Cande also manages the Survey's historic cemetery research and preservation program, acting as primary point-of-contact for inquiries about cemetery-related projects.

Michael Evans (Research Assistant) has been with the Survey since 1991. His specialized skills include digital Total Station and theodolite mapping, AutoCAD and Surfer map production, data editing and management, geophysical fieldwork and data interpretation, archeological fieldwork planning and supervisions, project background research and report production. Evans is interested in flintknapping, traditional methods of construction and architecture, blacksmithing, and primitive technology and replication.

Jared Pebworth (Research Assistant) has been with the Survey since 1991. His specialized skills include Total Station and theodolite mapping, geophysical fieldwork, data interpretation, archeological fieldwork planning and supervision, site mapping, project background research and report writing, lithic analysis, historic ceramics and material culture, and metal conservation and analysis. Pebworth is interested in historic archeology, traditional Ozark architecture, lithic raw material studies, and primitive technology and replication.

Looney Tavern. These structures are believed to be the oldest standing wooden structures in Arkansas, dating to 1828 and 1833, respectively. They were donated to Black River Technical College by landowners who are descendants of the original Rice and Looney families. Once renovated, these buildings will be used by BRTC as an educational center for primary, secondary, and college students from the region.

In advance of renovation, the Arkansas Archeological Survey conducted archeological excavations to determine how the foundations of each house were built and how much of them remain. The base of a stone chimney at Rice was also excavated for the same reason. Additional work was done to find evidence of porches on the north and south sides of the buildings.

Parts of leather shoes found beneath the dogtrot at Looney Tavern.



The excavations were successful. Two features beneath the Rice House are the first of their kind excavated in Arkansas. They are a firepit and a postmold. We believe the firepit was created while the log building was being constructed. Perhaps after one or more of the sides of the building were raised, the construction crew stayed inside at night for shelter. The postmold was found on the east side of the house, close to the foundation. This may have been created by scaffolding bracing logs as they were added. The postmold might also have been part of a crude temporary shelter, something like a small lean-to that the builders used during construction.

The soils below the floors at both houses have been churned up for nearly 200 years by rodents and other burrowing animals. This has destroyed the context of artifacts that we collected. This disturbance was ongoing during our excavations at the Looney Tavern; for example, we witnessed a day's worth of excavated dirt moved back into our excavation unit overnight by a busy groundhog.

Knowledge about the buildings as well as thousands of artifacts were collected during this project. These were sorted, numbered, and analyzed by Cande from January through the end of May 2016. While a number of artifacts dating to the early nineteenth century were found, most of the items recovered date from about the 1880s to 1920s. The collections include typical household artifacts, but also agricultural implements, tools, and building materials. These collections were boxed up and delivered to the Black River Technical College in August 2016. Our report on archeological excavations at the Rice House was submitted in November 2015.

Preserving the Prehistoric Heritage of South Arkansas (15-005, 16-002)

This is a collaborative project between the Arkansas Archeological Survey and the UA Museum Collections, supervised by Marie Imus under the general direction of George Sabo III (ARAS Director). Project goals are to inventory and evaluate the condition of archeological collections from southern Arkansas in the UA Museum Collections facility, and upgrade inventory information into a modern database as well as re-box all materials in containers that meet modern conservation standards. Two student assistants, Madelyn Rose and Jordan Warner, were supported by a portion of the grant funds.

During FY 2015–2016, Imus and team inventoried and reorganized 34 major collections comprising 9230 objects. Some of these collections had been donated, but others, including materials from the Adair and Strickland Island sites, are excavated collections with substantial research potential. A total of 4285 new catalog records were generated as a result. The project team discovered that some collections had been left in “study sort” order by individuals previously working with the materials, necessitating much additional effort to reorganize them into proper inventory order. As a result of these efforts, along with similar efforts completed during earlier phases of this project, a major portion of the UA Museum Collections is

now in excellent order and properly re-boxed to serve ongoing curation, research, display, and teaching needs.

Preserving and Interpreting Arkansas Bluff Shelters (16-004)

Jamie Brandon (ARAS-UAF research station archeologist) and Lydia Rees (ARAS research assistant) pursued three goals in this project. The first involved digitization of records and correspondence from UA Museum excavations at northwest Arkansas bluff shelter sites conducted in the 1930s by Museum Director Samuel C. Dellinger. With expert assistance from Elizabeth T. Horton (ARAS-TMRS archeologist and ethnobotany specialist), the team also conducted an evaluation of perishable artifacts (e.g., basketry, cordage, woven fabrics, and tools and implements fashioned from wood, bone, and other materials) preserved in the bluff shelter collections for identification of additional conservation measures to enhance the preservation of these rare items as well as to identify priorities for future research. Lastly, the team created a public website to provide educational information on these unique and extraordinarily important materials. These efforts were greatly assisted by SRP staff archeologist Jared Pebworth. The new *Bluff Shelters of the Arkansas Ozarks* website is linked to the ARAS main website and can be viewed at <http://archeology.uark.edu/ozarkbluff-shelters/>.

Enhancement of AMASDA (15-006, 16-003)

AMASDA (Automated Management of Archeological Site Data in Arkansas) is one of the country's most comprehensive and sophisticated computer database systems for archeology. This project, under the direction of ARAS Registrar's Office staff Lela Donat and Teka McGlothlin, also has several goals, including scanning research station artifact catalog cards, scanning technical archeological project reports, and digitizing primary field documents. The artifact catalog cards are from earlier efforts, undertaken during the 1960s and 1970s, to create a comprehensive inventory of artifact collections curated at the Survey's statewide research stations. Though this earlier project was terminated when new, computer-based technologies began to offer enhanced options, the existing cards provide information (including drawings supplemented by associated descriptive information) that remain useful to ongoing research projects. The card catalog is extensive, but a significant portion has now been scanned and completion of this project element is anticipated during the next fiscal year.

Even more extensive is the collection of unpublished archeological project reports, of which well over 9000 have been submitted to the Registrar's Office. Staff of that office are very happy to report that the entire backlog of reports has now been scanned, and most newly incoming reports are submitted in a digital format that can be directed uploaded to the AMASDA database.

Digitization of the Survey's own primary field records represents another extensive task involving documents gener-

ated by well over a thousand in-house projects. Consequently, this element of the project is being conducted on a station-by-station basis; during FY 2015–2016, records from the Toltec research station were scanned. These activities contribute to AMASDA's status as one of the country's most advanced state database systems for archeological information.

National Park Service Projects

Two major projects, both begun during FY 2014–2015, received continuing support from the National Park Service through the federal Cooperative Ecosystem Studies Units (CESU) program, administered for the University of Arkansas System by the UA Division of Agriculture. Both are multiyear efforts that will continue.

Comprehensive Archeological Investigations in the Osotouy Unit, Arkansas Post National Park Service

During this fiscal year Jami Lockhart (ARAS-CSP) and John House (ARAS-UAPB) commenced work on the second phase of a projected four-phase, four-year collaborative effort with the Midwest Archeological Center of the NPS. The overarching goal of the project is to conduct archeological investigations designed to integrate all previous studies conducted (beginning in the 19th century) at several prehistoric, protohistoric, and contact/historic era sites reflecting the Quapaw presence in the area currently recognized as the Arkansas Post National Memorial. These sites represent the first encounters between Native American communities and seventeenth through eighteenth century French and Spanish colonists in what later became the State of Arkansas. The overall effort includes mapping, geophysical prospection, archeological testing, and data integration using the latest digital technologies. Expanding upon last year's efforts, the current effort included additional geophysical surveying, an expanded program of test excavation, and collection of samples for chronometric analysis, all designed to address questions about the condition of buried cultural features and their functions to enhance future preservation and heritage tourism development. Efforts were also undertaken to assess the impacts of feral hogs and other sources of damage to the extant archeological record preserved at those sites.

Comprehensive Archeological Inventory of Ruddick's Field, Pea Ridge National Military Park

This is another projected multiyear effort also undertaken in collaboration with the NPS Midwest Archeological Center. The current effort involves, first, the assimilation of spatial data employing GPS and Total Station instrument survey data, LiDAR, aerial photography, and other sources of information to produce



a comprehensive geospatial framework to encompass two areas of the park important for investigating its Civil War history: Leetown and Ruddick's Field. Geophysical survey supported by metal detector survey and limited test excavations were conducted across Ruddick's field this year, with additional work planned for Leetown in the coming months. These efforts are producing greatly expanded information compared to earlier archeological investigations at Pea Ridge, which employed a more limited range of technologies. Future large-scale excavations are planned, based on the results of the ongoing survey and testing efforts. The findings of these investigations will enable the National Park Service to expand heritage tourism activities, programs, and displays at Pea Ridge National Military Park.

Other Projects

Gathering, Gardening, and Agriculture Lessons

Research station archeologists Jodi Barnes, Elizabeth Horton, and Emily Beahm received support from three sources this year to develop a 5th grade Social Studies curriculum. Supported by the Bill Jordan Public Education Fund of the Arkansas Archeological Society, the Public Outreach program of the



Dr. David Stahle, UA Professor of Geosciences, in the ARAS SRP lab, examining a charred cypress post removed from the top of the mound at Parkin Archeological State Park, possibly representing the remains of a cross erected there by Hernando de Soto in 1541.

Southeastern Archaeological Conference, and the Arkansas Humanities Council, the project created STEM-based lesson plans exploring the history of plant foods used by Native Americans and early European and African populations in Arkansas. The lesson plans will be made available at no cost to Arkansas teachers and their students. We anticipate that the curriculum will be widely adopted and provide a nationally recognized example of using archeological case studies to develop high quality, STEM-based classroom instruction.

Search for De Soto's Cross at Parkin Archeological State Park

In May 1539, Hernando de Soto landed in Florida with a large force of soldiers, support workers, and potential colonists, and set off on an exploration of the interior Southeast that two years later brought the *entrada* across the Mississippi River and into what is now Arkansas. Arriving at the principal town of the province of Casqui (now preserved as Parkin Archeological State Park) in June 1541, the Spaniards were welcomed by the Indians and a series of gift exchanges and ceremonies followed. During one noteworthy event, recorded by the handful of expedition writers chronicling the proceedings, the Spaniards

erected a large wooden cross on the surface of a platform mound that also supported the chief's house. Dominican priests conducted a ceremony of veneration, participated in by Spaniards as well as Indians. As such, this was the first documented Catholic ceremony performed within the boundaries of the present United States that included the participation of an indigenous community.

With funds provided by the Elfrieda Frank Foundation, a search for archeological evidence of the cross was undertaken by Parkin research station archeologist Jeffrey Mitchem, assisted by ARAS-SRP staff Michael Evans and Jared Pebworth and with geophysical survey support from Jami Lockhart of ARAS-CSP and Tim Mulvihill (ARAS-UAFS research station archeologist). Excavations centered on the area where former Survey Director Charles R. McGimsey III discovered a large burned wooden post feature in 1966. Samples of the wood collected by McGimsey later produced a mid sixteenth century radiocarbon date, raising the possibility that the feature might, indeed, represent a preserved portion of the Spanish cross.

Mitchem's team succeeded in relocating the feature, and the remaining portion of the badly deteriorated wooden post was removed in its entirety. The excavations produced much better

contextual information for the feature, which was found to have intruded into an earlier post feature, probably erected on the mound surface by the Casqui Indians. Analysis of the presumed Spanish cross feature by internationally recognized tree-ring expert Dr. David Stahle (UAF Department of Geosciences), determined that it contained too few well-preserved tree rings to yield a cutting date, but the specimen did exhibit cut marks attributable to metal tools. Carbonized wood samples from both the presumed Spanish cross and the earlier Indian post were collected and submitted for radiocarbon dating.

Willhaf House

The Willhaf House is an early nineteenth-century National Register residential structure located in Van Buren, Arkansas that was acquired by the University of Arkansas - Fort Smith. It is adjacent to the Drennan-Scott House, at which the UAFS Historic Interpretation Program is centered. Using funding provided by ANCRRC, UAFS is currently restoring the Willhaf structure to develop it as a historic preservation interpretive center. Tim Mulvihill, our research station archeologist at UAFS, with assistance from SRP staff archeologists Mike Evans and Jared Pebworth, and ARAS-CSP director Jami Lockhart, have been conducting investigations of associated archeological features preserved on the Willhaf House grounds. Geophysical prospecting revealed several archeological features associated with the nineteenth century structure. Test excavations produced artifacts that can be used for exhibit in the reconstructed house, and information about buried historic resources that can be avoided during ongoing restoration activities and preserved for display as part of interpretive center programs.

Taylor House

The Taylor House was the primary residential facility at the nineteenth century Hollywood Plantation, founded by Dr. John Taylor and his wife, Mary, who constructed a large, two-story dogtrot log structure on Desha County land inherited by Mary and developed as a center for the production of cotton, rice, corn, and other crops. The property was acquired by the University of Arkansas at Monticello for development as a historic preservation training facility. Jodi Barnes (ARAS-UAM), assisted by ARAS staff from across the state, has been directing ANCRRC-funded investigations designed to gather information on plantation- and house-associated features preserved on the UAM property. As with the Willhaf House investigations,



Katie Leslie (ARAS-HSU) helps with mapping at the Taylor House.

the multistage approach involves geophysical prospecting to identify buried features, followed by excavation to examine the integrity and function of preserved features and to produce artifact collections and other information to guide restoration activities and contribute to interpretive programming.

Wallace's Ferry

Wallace's Ferry in Phillips County, Arkansas, was the site of a Civil War conflict significant in Arkansas history for valorous heroism displayed by African American soldiers. This was the only Civil War battle in Arkansas in which the full complement of participating U.S. forces was comprised of African American soldiers. In February 2016, an ARAS team led by Carl Drexler (ARAS-SAU research station archeologist) conducted a systematic metal detector survey across 17.25 acres of the site, leading to the identification and retrieval of a large sample of battle-related artifacts. As detailed in Drexler's research station

summary in this Annual Report, the investigation produced important information about the spatial distribution of battle-field activities and about the accouterments and personal items associated with participating soldiers.

Elkins' Ferry

Elkins' Ferry is the site of a Civil War battle that took place on April 4, 1864, representing one of the last major campaigns in Arkansas. With support from the Arkansas Historic Preservation Program, Carl Drexler (ARAS-SAU research station archeologist), and ARAS staff members from several other research stations, along with volunteers, conducted a systematic metal detector survey of a large tract of the site, retrieving a large sample of battle-related artifacts on lands recently purchased to preserve and commemorate the battle and to develop as a heritage tourism resource.

Bend Performance and Workshop

With grant support from both the Arkansas Humanities Council and the Arkansas Arts Council, Jodi Barnes (ARAS-UAM research station archeologist) organized a public performance and workshop celebrating the legacies of Japanese Americans interned during World War II at the Rohwer and Jerome relocation camps in southeastern Arkansas. In August 2015 Kimi Maeda, a performance artist and descendant of a camp internee, presented her *Bend* performance, that tells the true story of the experiences suffered by two male internees, at the Ron Robinson Theater in Little Rock and at McGehee High School. Maeda also conducted a day-long workshop for 40 high-school students, introducing them not only to this episode of Arkansas history but to Japanese culture, cuisine, and language. The students also participated in a craft project, producing their own artistic representations of the *Bend* story in the form of traditional Japanese sand drawing.

Davidsonville Historic State Park Kiosk (with CAST)

Kathleen Cande, along with Angie Payne and Vance Green of CAST (Center for Advanced Spatial Technologies) began work on content to be placed on a kiosk in the new Visitor Center at Davidsonville Historic State Park. The project is funded by a grant from the Arkansas Natural and Cultural Resources Council.

A kiosk is an interactive computer terminal for use by the public visiting the park. The kiosk will feature a three-dimensional map of Davidsonville based on results of archeological excavations and archival research. The 3D map was created several years ago, and now will be greatly enhanced with the addition of six new buildings. The interiors of these structures will include historically accurate furnishings and artifacts found during the Survey's archeological excavations. Animation software allows the user to travel through the town, stopping and entering any of the buildings. The visitor will also be able to take a guided tour via the kiosk. It will also contain paintings, drawings, images, and historic documents that help tell the town's history. Since Davidsonville is now an archeological site, with no above-ground remains, the 3D reconstructions will greatly enhance the visitors' experience.

Cemetery Research Activities

Kathleen Cande acts as the coordinator of all ARAS activities in the Historic Cemetery Preservation initiative. During 2015–2016 she processed 51 requests for information and assistance from ARAS station archeologists, AHPP staff, and the general public about cemeteries in 29 Arkansas counties, and one in Oregon County, Missouri. Requests also came from the Logoly State Park superintendent, an NCRS staffer, a history professor from UCA, and the Arkansas National Guard Command Historian.

Cande updated project data with contact information and assembled information to be posted on the ARAS website, including Arkansas cemeteries listed on the National Register of Historic Places, and the Arkansas Register of Historic Places.

Grants, Contracts & Cost-Share Agreements in FY 2015–2016

SRP Project No. & Name	Firm or Agency	Budget
Extensions (no new funding)		
15-01 Preserving the Prehistoric Heritage of South Arkansas	ANCRC 15-005	\$42,333
15-02 Enhancement of AMASDA	ANCRC 15-006	\$34,356
New		
16-01 Preserving the Prehistoric Heritage of South Arkansas	ANCRC 16-002	\$44,133
16-02 Enhancement of AMASDA	ANCRC 16-003	\$20,396
16-03 Preserving and Interpreting Arkansas Bluff Shelters	ANCRC 16-004	\$35,471
16-04 Bend Performance & Workshop	Arkansas Arts Council	\$3033
16-05 " " "	Arkansas Humanities Council	\$1500
16-06 Ruddick's Field, Pea Ridge National Military Park	National Park Service	\$31,449
16-07 Osotouy Unit, Arkansas Post National Memorial	National Park Service	\$18,814
16-08 Search for De Soto's Cross at Parkin	Elfrieda Frank Foundation	\$19,468.81
16-10 Elkins' Ferry	AHPP	\$11,807
16-11 Taylor House	ANCRC (through UAM)	\$17,037
16-13 Willhaf House	ANCRC (through UAFS)	\$6746
16-12 Gathering, Gardening & Agriculture Lesson	Public Outreach Program, SEAC	\$1990
16-14 " " " "	Bill Jordan Fund, AAS	\$3290
16-15 " " " "	Arkansas Humanities Council	\$4999
Total (new funds)		\$220,124.81

AHPP = Arkansas Historic Preservation Program

ANCRC = Arkansas Natural and Cultural Resources Council

AAS = Arkansas Archeological Society

SEAC = Southeastern Archaeological Conference

SRP — Academic & Service Activities

Professional Service

- **Peer Review.** Cande is current research editor for the Gulf States region for the *Society for Historical Archaeology Newsletter*.
- **Consultations.** Staff served as consultants to various state and federal agencies, land managers, and research entities, especially the University of Arkansas Museum Collections, Arkansas Department of Parks and Tourism, Davidsonville Historic State Park, Washington Historic State Park, Petit Jean State Park, the National Park Service, Arkansas Post National Memorial, Pea Ridge National Military Park & Battlefield, the Buffalo National River, the U.S. Forest Service, the U.S. Army Corps of Engineers, the U.S. Army National Guard, several Arkansas municipalities, and CRM and engineering firms.
- **Organizations.** Cande participated in an online seminar "Archaeological Curation for the 21st Century" offered by the Society for American Archaeology (for the Register of Professional Archaeologists Continuing Professional Education).
- **Committees.** Cande is a member of the ARAS Web Steering Committee.

Public Service & Outreach

- **Programs & Presentations.** Jared Pebworth and Michael Evans gave demonstrations on ancient hunting technology during the ARAS "Celebrate Archeology Day" in Fayetteville (attendance over 100).
- **Other Outreach.** Cande serves as coordinator of the Survey's historic cemetery research and outreach to individuals and local organizations involved with cemetery preservation.

Computer Services Program



Dr. Jami Lockhart

Jami Lockhart coordinates and directs all of the Survey's GIS and archeogeophysical research around the state, both ARAS projects originating at the various research stations and projects funded by grants or cost-share agreements with other agencies. In this capacity, he collaborates with colleagues on research design and contributes to project reports. He also works with students at the University of Arkansas and, along with other ARAS personnel, takes part in cooperative ongoing research at the Spiro site with colleagues in Oklahoma (see pp. 95–99 for project summaries).

Deborah Weddle

Deborah's time is split between Information Technology support and web design. She oversees IT life cycle management for the statewide organization, and is responsible for the maintenance of day-to-day computer operations. This encompasses computer systems procurement, inventory, and administration; computer repairs and upgrades; site license administration and deployment; and end user support for all staff (hardware and software). Deborah also runs the CSP Computer Lab, which houses a high-end GIS Workstation, PC and iMac general

computing workstations, two flatbed scanners, a high-capacity automated slide scanner, networked color laser printer, and microfilm scanner. The rest of her time is spent on the design and maintenance of the Survey's main website. She also administers the Survey's Twitter presence and is the initial point-of-contact for public inquiries through the website.

John Samuelson

John continued to maintain the Survey's servers, databases, backup system, and other digital resources. This includes maintaining the [arkarcheology](#) server, the [arasabackup](#) server, the [arasremote](#) server, the backup system, the AMASDA database, some other smaller databases, the AMASDA Online website, the *Indians of Arkansas* website, the *Arkansas Novaculite* website, the *Rock Art in Arkansas* website, and the large format printer and scanner. John also worked with Deborah Weddle in launching the Arkansas Archeological Survey's new organization-wide website. He implemented the new [archeology.uark.edu](#) server and moved the Survey's websites, except for AMASDA Online, to the new server, which has dramatically increased access speeds (on the order of 10x faster).

The Survey's Computer Services Program (CSP) is responsible for all aspects of electronic information management, including systems administration, computer operations, equipment purchasing, research, instruction, and user support, throughout the organization. Our pioneering computer database for archeological site information (AMASDA) is one of the most comprehensive such applications in the country. The Survey has worked toward an approach that integrates the different data structures and digital tools being used in archeological research and cultural resource management today. Key components of this integrated approach include geographic information systems (GIS), relational database management systems, and exploratory data analysis. CSP provides online access to AMASDA for qualified subscribers and is working to provide web-enabled database access (with some information categories password-protected) for agencies and firms involved with cultural resource management in Arkansas. Our educational websites are maintained in response to public interest as well as agency and research needs. The newest component of the Survey's computer applications program is a full complement of remote sensing technologies for near-surface geophysical prospection on prehistoric and historic archeological sites.

Jami J. Lockhart (Ph.D., Environmental Dynamics, University of Arkansas, 2007) joined the Survey in 1988. His research specializations include integrated data management, GIS, archeogeophysics, and human-environmental relationships through time. He is CSP Coordinator and Director of Archeogeophysical and GIS Applications, and Research Professor in the Department of Anthropology at the University of Arkansas – Fayetteville.

Deborah Weddle (B.A., Anthropology, University of Arkansas, 1993) began working for the Survey as a student archeological laboratory and field technician before moving permanently to the CSP. Her specializations include web application development, Information Technologies, and the use of multimedia technologies for education. She is the Survey's Information technology support and Internet applications specialist.

John Samuelson (M.A., University of Arkansas, 2009) is currently a Ph.D. candidate in Anthropology at UAF and a research assistant at the Survey. His specializations include Caddo archeology, stable isotope analysis, geophysics, databases, GIS, digital storage, web application development, and computer applications in archeology. He is the Survey's server administrator, administers Survey databases, and assists with web application development.

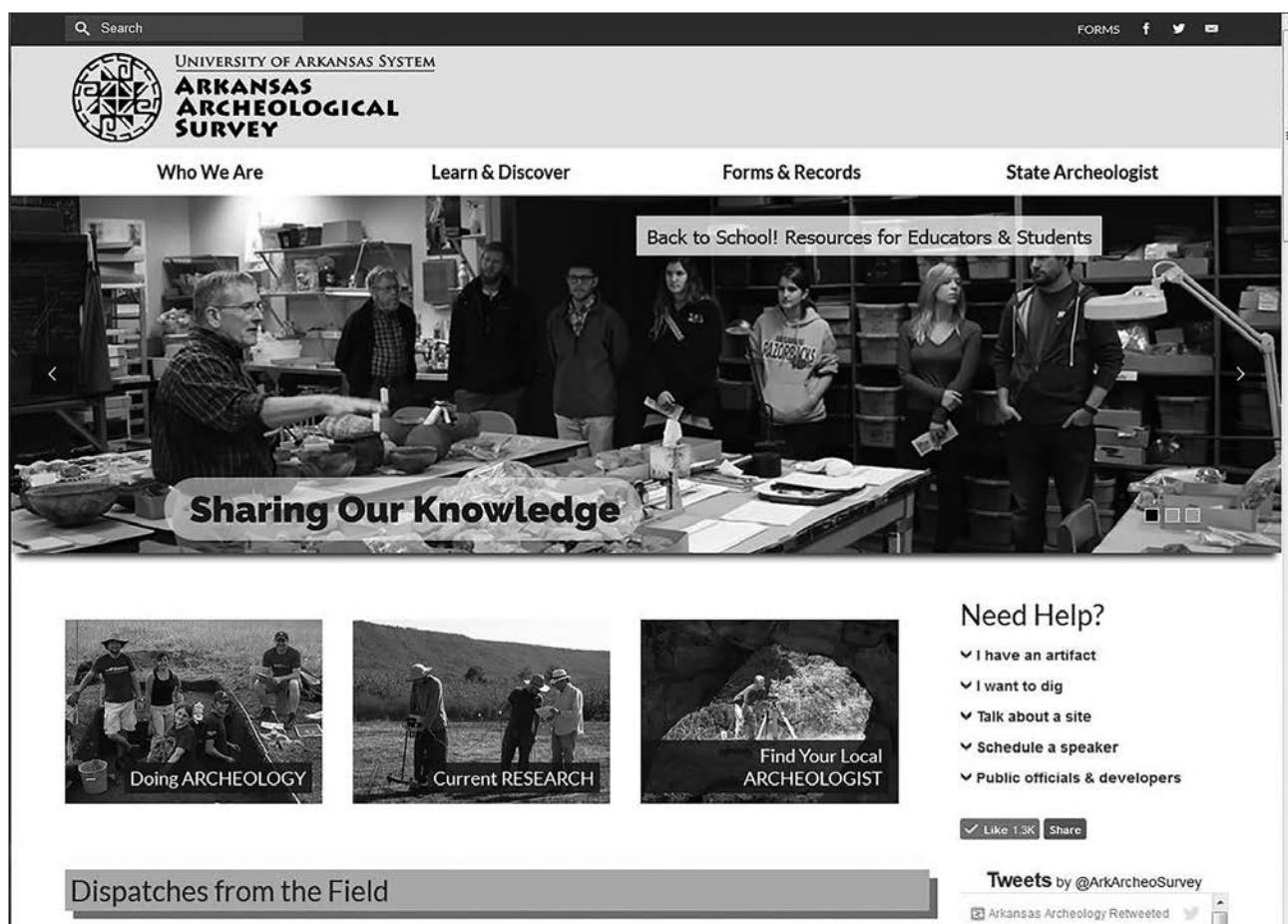
AMASDA Database & Backup Systems

AMASDA and the [arkarcheology](http://arkarcheology.uark.edu) server are backed up nightly. The arasbackup server continues to be backed up twice daily. The use of the backup system by ARAS personnel increased in 2015–16. This system is a centralized and redundant backup system for the digital information created by the organization. The File Share folder, backed up bi-nightly, now has 7.79 TB (3.13 TB size on disk due to compression) of data, 1,582,641 files, and 84,580 folders currently backed up. In addition, 3.5 TB of data are currently in use for system backups. This is a 32% increase in the size of the file sharing portion of the data over the previous year. The arasremote server is housed at the University data center, which allows for a total system backup in a remote location. This protects our data in a worst case scenario. Maintenance and upgrades included fixing failed hard drives and changing the backup software used to archive server data. Changing the backup software, combined with hardware and network optimizations, increased the backup speeds, reducing the time required for a full backup to be executed by 66% (from 3 days to 1 day). It is critical to continue to keep backup executions to a reasonable time frame as the data storage requirements continue to grow.

This year the Survey purchased a new server, given the domain name archeology.uark.edu, to host our websites, including AMASDA Online. Arkarcheology.uark.edu is now nearly 10 years old and this server will be its replacement. John Samuelson moved all ARAS websites to the new server. All websites are now live and under the archeology.uark.edu domain, except for AMASDA Online which was being improved on the new server before being launched. The new server, combined with programming fixes and upgrades, has allowed for page load speeds that are on the order of 10 times faster than the old server produced. The upgraded version of AMASDA Online was expected to be launched by the end of 2016. Along with the new server, a new large battery backup system was purchased to provide robust protection for the servers. This required the installation of an outlet capable of providing the necessary power.

AMASDA Online

John Samuelson continued to provide support for the ARAS registrar's office and anyone else needing help with the AMASDA Online website and AMASDA database. Individuals logged in over 5900 times this year (25% increase over last year) to retrieve 403,310 records related to archeological



Screen grab of the new Survey website's landing page.

sites and projects in Arkansas. The AMASDA Online website was updated to address a few issues. John created a manual for the new version of the Geographic Interface (2.0) to help familiarize users with the newly available tools. He helped the registrar's office in their continued effort to digitize projects by providing GIS and database support.

AMASDA Online was officially launched for use by for-profit users in early July of 2015. The launch has been a success and has paid for a significant portion of the cost of the archeology.uark.edu server as well as the battery backup. It is anticipated that the funds produced will be sufficient to cover all maintenance costs in the next few years. The web traffic on AMASDA Online increased 37% this year to 68,800 pageviews, most likely due to this launch. John also fixed various issues with AMASDA as they occurred and began to develop the ability for online registration through a digital signature plugin for WordPress. Occasionally, he performed custom queries of the database upon request, and also performed GIS analysis of archaeological site data for contractors. These activities brought in additional funds to the Survey.

Equipment & Technical Support

Deborah Weddle is responsible for oversight and maintenance of all day-to-day computer operations for the statewide organization. Most of her time is devoted to computer systems procurement, inventory, and administration; computer maintenance, repairs, and upgrades; software site license administration and deployment; end user support for all staff (both hardware and software); general website design and maintenance; and as initial point-of-contact for public website inquiries.

Due to our in-house technology support and upgrades, the Survey is able to sustain a useful product life of 6–7 years per desktop computer, and an average of 4 years per notebook computer. This is more than double the useful life cycle in most corporate environments.

Facilities at the coordinating office in Fayetteville include a computer lab for staff and student use, and a large format printer/scanner for documents such as conference presentation posters and excavation records such as maps, site plans, and rock art tracings. Only trained CSP staff may operate this equipment. John Samuelsen currently maintains the large format printer/scanner. He trained and helped some students to use

the scanner this year for digitization projects in the registrar's office, and aided professional staff by formatting and printing large posters for conferences.

Redesigned Website Launched

With the assistance of WordPress administrator John Samuelsen, Deborah Weddle designed a completely new flagship website for the Survey. This website (<http://archeology.uark.edu>) went live in early July 2015 and presents more than 70 pages of content. The site's design allows us to showcase the wide array of work we do in support of our core missions of education, research, and preservation. Content is kept fresh via regular posts highlighting research and new discoveries, educational outreach activities, publications and resources for teachers, and real-time social media feeds. Information vital to public officials, developers, and professional archeologists working in our state is now easily accessible through quick links on the home page. Response to the new website has been very positive and has led to a significant increase in viewer traffic (71,000 pageviews and 23,000 sessions, a greater than 700% increase in pageviews over the last few years), materials downloads, and requests for talks by Survey archeologists.

A Web Steering Committee of ARAS staff members assisted the development team as they worked on the new website's organization and menus, and continue to advise about ongoing improvements, additional features, and new content. Members of the committee are Deborah Weddle, John Samuelsen, George Sabo, Deborah Sabo, Jamie Brandon, Kathleen Cande, Jami Lockhart, and Ann Early.

NAGPRA Website Initial Development

A NAGPRA (Native American Graves Protection and Repatriation Act) grant was awarded to the Survey in 2014 to complete an organization-wide inventory of culturally affiliated and culturally unidentified Native American human remains and associated artifacts. As a component of this grant, a new website was to be developed with the purpose of providing authorized tribal representatives secure access to the Survey's working inventory of human remains and grave goods. John Samuelsen and Deborah Weddle created the preliminary website in early 2016, and the site was presented to tribal representatives for review that spring. Further development on the website is currently pending input from the relevant tribes.

Interactive Educational Websites

John Samuelsen maintains the Survey's two interactive educational websites. These sites continued their popularity over the last year. *Indians of Arkansas* <<http://arkarcheology.uark.edu/indiansofarkansas/index.html>> is designed for the public and for students and educators, and contains both academic and indigenous perspectives on American Indian history. It received 90,000 pageviews and 38,000 sessions.

Rock Art in Arkansas <<http://arkarcheology.uark.edu/rockart/index.html>> is designed for public education on the prehistoric rock art of Arkansas with articles, picture gallery, classroom ideas, and a searchable database of images and information. The site had 21,500 pageviews and 7400 sessions.

These sites have their greatest popularity during the school year, indicating a high use by students and teachers for learning and classroom preparation about Arkansas history and Arkansas Indians. The content of the websites is a group effort, but is mostly created and updated by George Sabo (Director of the Survey). These websites have garnered more than one million hits since their creation.

The full version of *Arkansas Novaculite: A Virtual Comparative Collection* <<http://arkarcheology.uark.edu/novaculite/index.html>> by Dr. Mary Beth Trubitt (ARAS-HSU) was launched in May 2014. It had 11,500 pageviews and 5680 sessions this year. The project to develop this resource was funded by a grant from the Arkansas Humanities Council. Trubitt continuously updates this site, which presents resources for researchers and students interested in Ouachita Novaculite, a stone that was used for millennia for toolmaking and trade, and related quarry and workshop sites.

Retired: Archeological Parks in the U.S. Website

This website was created by Deborah Weddle in 1998 at the behest of a former staff member. The decision to retire it was made in May 2016, based on both low site traffic and the current availability of websites by national and state park agencies providing similar content. The website was formerly located at www.uark.edu/misc/aras. Its content is now archived offline.

Archeogeophysical & GIS Research Projects

The Survey's comprehensive program of archeogeophysical remote sensing applications is directed by **Dr. Jami Lockhart**. As a nondestructive reconnaissance technique that can save time and expense by focusing excavation efforts for the most beneficial result, archeogeophysical remote sensing has revolutionized archeological methodology and has become an integral part of cultural resource management. The Survey endeavors to remain at the forefront of this development.

New Project Development

Lockhart (with Jamie Brandon and Carol Colaninno) submitted a grant proposal for an innovative project, which will rely on LiDAR, high resolution orthophotography, GIS edge-detection, and multivariate predictive modeling to identify bluff shelters. High-confidence targets will then be located through GPS navigation. Three-dimensional scanning/imaging will be used to recover high-resolution metrics integrated with digital photography to visualize/archive endangered archeological features. Ultraviolet/infrared/thermal photography will be used to enhance directly observable rock art, as well as elements outside the spectral range of unaided detection. Post-processing will include a range of image-enhancement techniques.

Pea Ridge National Military Park

Lockhart pursued a four-year project to conduct an archeological inventory within Pea Ridge National Military Park. The areas to be studied are associated with the March 1862 Civil War battle at Pea Ridge, Arkansas, which was one of the most significant actions of the war in this region. The project is a collaboration between the Arkansas Archeological Survey and the Midwest Archeological Center of the National Park Service, organized under the federal Cooperative Ecosystem Studies Units (CESU) program.

Ruddick's Field

- Lockhart (with co-PIs Jamie Brandon and George Sabo) developed a research design that partitioned areas of Ruddick's Field at Pea Ridge for high-resolution gradiometry that has discovered concentrations of metal and other features associated with Union and Confederate troop movements and fighting in 1862. The gradiometry and associated GIS data development are 95 percent complete, and excavation took place in early 2016. Newly acquired, high-accuracy, real-time GPS operated by Mike Evans plays an important role in the methodology. Other survey personnel involved include Carol Colaninno, Carl Drexler, John Samuelsen, Jared Pebworth, Lydia Rees, and NPS archeologist Adam Weiwei. The project has received some positive media coverage. The NPS grant to ARAS for this phase of the project was \$32,000. In 2016, Lockhart directed the completion of the geophysical remote sensing at Ruddick's Field, and provided spatially accurate GIS data layers locating Civil War artifacts. He then participated in the metal-detection and artifact collection phase of the NPS Ruddick's Field project. More than 600 artifacts were collected. Lockhart contributed substantively to the Quarterly Report on this work sent to the National Park Service in January 2016, and is now developing a contractual progress report for the work completed at Pea Ridge Ruddick's Field so far.

Leetown

- Year two (2016–17) of the four-year Pea Ridge project has been funded and will involve geophysical, GIS, and excavation associated with the Leetown hamlet that figured prominently in the 1862 battle. The NPS grant to ARAS is \$47,000. Lockhart (with co-PIs Jamie Brandon and George Sabo) developed a research design and scope-of-work for fieldwork. Subsequent analyses will increase our understanding of the site history and events that occurred in historic Leetown, providing the National Park Service with more accurate and comprehensive interpretation of historic events both for content presented on-site and at the Visitor Center. Lockhart's specific responsibilities include:
 - Archival and background research for the history of Leetown and intervening efforts to locate and confirm specific archeological features associated with the hamlet.
 - Compile, georeference, and overlay multiple information formats such as archival sources, historic maps, historic and modern aerial photographs, conventional photographs, and LiDAR.
 - Integrate and interpret all background information for informed planning, implementation, and enhanced interpretation associated with geophysical remote sensing and recommendation of excavation locations.
 - Mapping and georeferencing using GPS and Total Station technology to construct a precise on-site geospatial representation and grid.

Pea Ridge Civil War Battlefield, Ruddick's Field
25 acres of Gradiometer Data Shown over a 1940 Aerial Photo with Civil War Artifacts from Testing (shown as small squares).

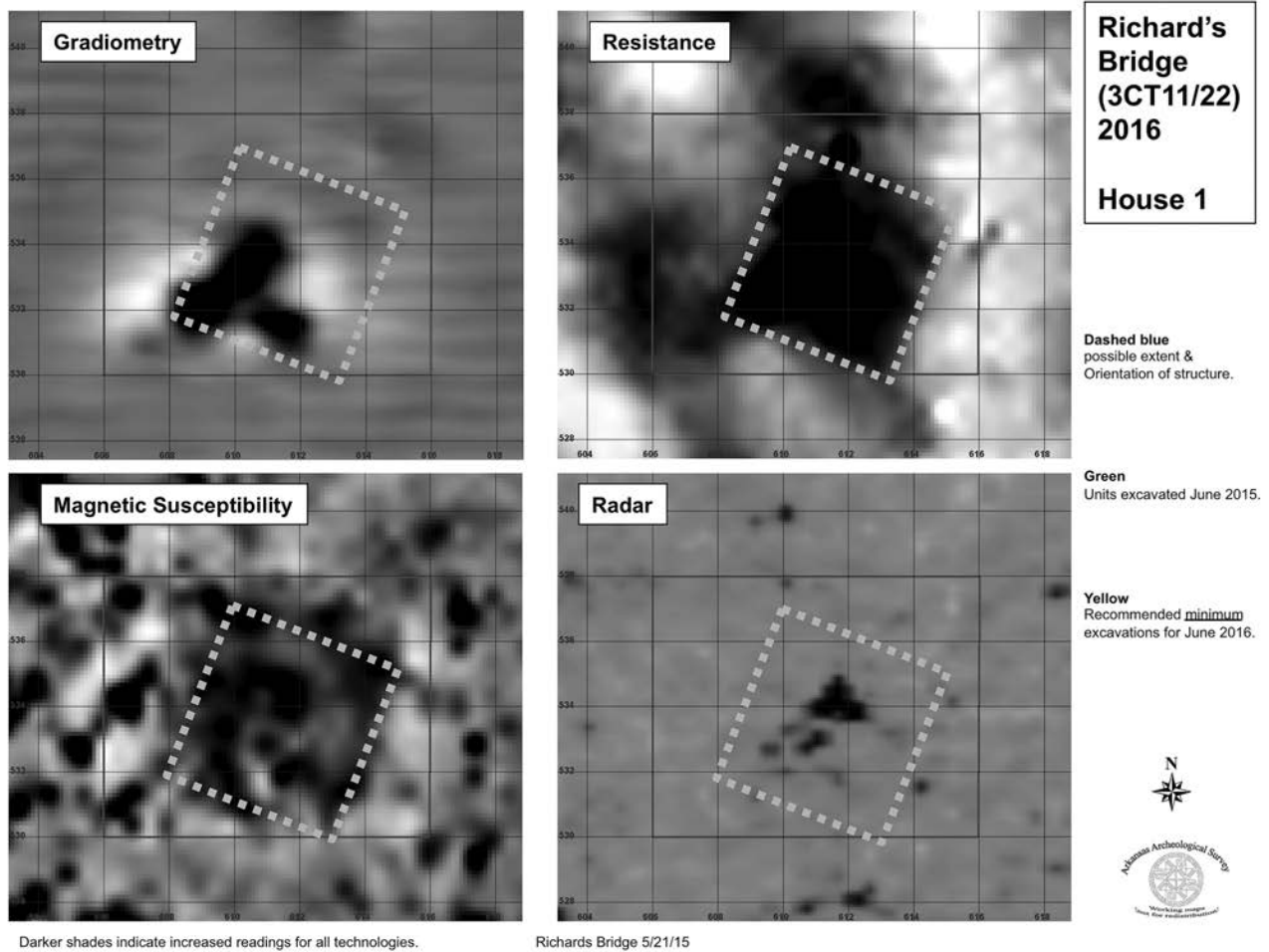


- Comprehensive, high-resolution gradiometry survey of 7-acre open area of the Leetown hamlet to locate battle-related features (including former structures, contemporaneous roads, and associated artifacts).
- Georeferenced mapping and interpretation of magnetometer data to provide precise locations for pinpointed multi-sensor remote sensing surveys.
- Multisensor geophysical remote sensing in addition to gradiometry includes electromagnetic conductivity, magnetic susceptibility, electrical resistance, and ground penetrating radar. This task incorporates all associated data processing, georeferencing, interpretation, reporting, and data delivery.
- Recommendations for specific locales to be excavated.

Richards Bridge 3CT11/22

Lockhart is conducting geophysical and GIS-enabled research associated with the Richards Bridge site and cultural landscape, which is composed of numerous prehistoric/protohistoric houses and other features. (with Tim Mulvihill and Jeffrey Mitchem)

- Prior to the June 2016 AAS&ARAS Training Program, Lockhart accurately interpreted remote sensing imagery to provide precise locations for excavations encompassing an entire prehistoric/protohistoric house footprint, including shape, size, orientation, and interior features.
- During the 2016 Training Program, Lockhart taught an archeogeophysical remote sensing class in which four more prehistoric/protohistoric houses were precisely located at the Richards Bridge site. Students learned about five remote sensing technologies and collected multiple data sets. Lockhart processed and georeferenced the multisensor data for the class, as well as for use in specifying future excavations.



Osotouy Unit, Arkansas Post

In September 2015, Lockhart directed additional multisensor geophysical and GIS analysis for the prehistoric/protohistoric/historic Osotouy site. Lockhart has developed an ultra high-resolution digital elevation model from raw LiDAR data, which encompasses Osotouy, Lake Dumond, and Wallace Bottoms. The multiyear research is being conducted in cooperation with the National Park Service, and is providing precise locations for hundreds of archeological features. Excavations in September confirmed prehistoric cultural features for all of the geophysical anomalies tested. (with Tim Mulvihill and John House)

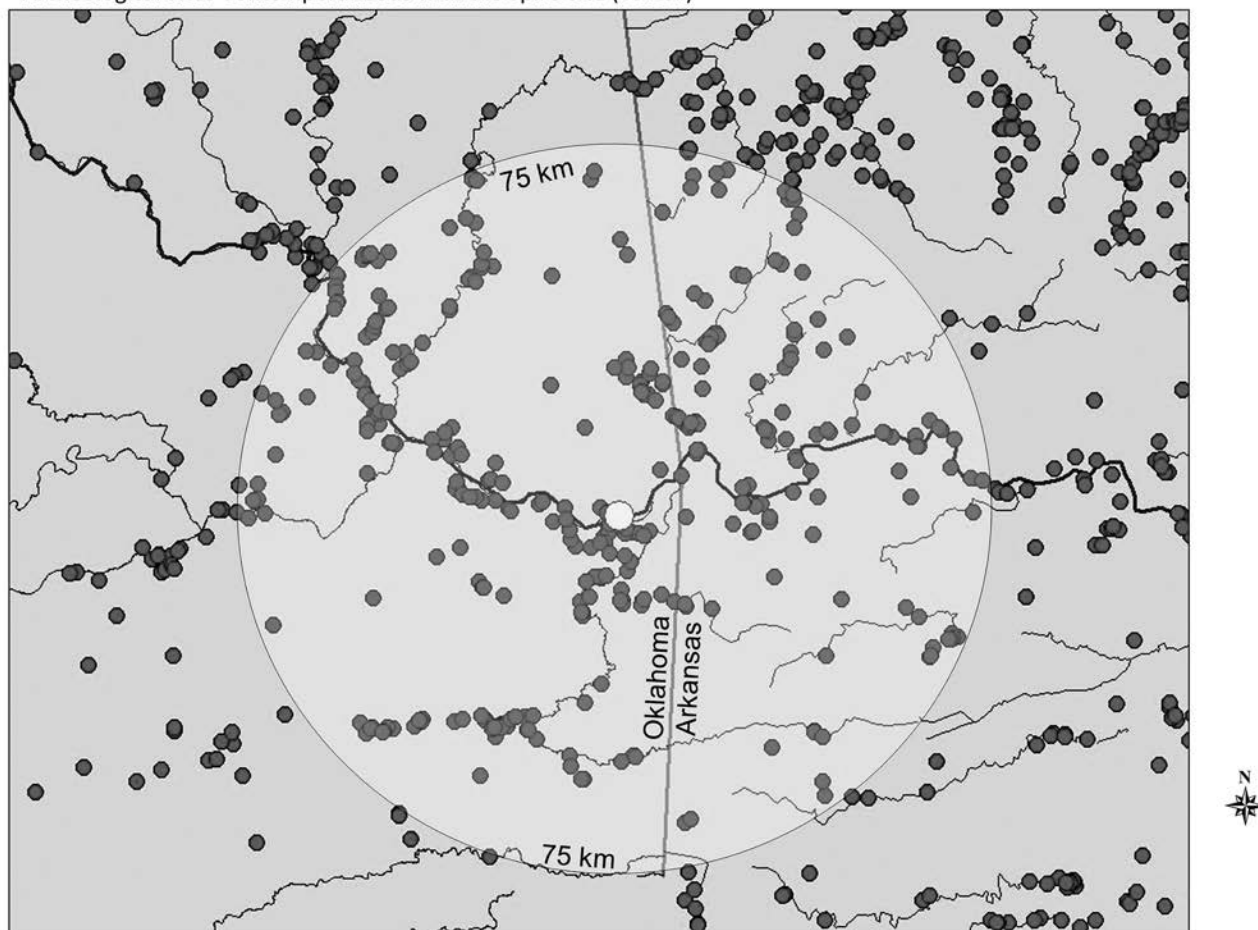
- In February of 2016, Lockhart provided a Quarterly Report to the National Park Service and John House (ARAS-UAPB research station) with descriptions and remote sensing graphics detailing Lockhart's recommendations for excavations at the prehistoric/protohistoric Osotouy. Thus far, those excavations have confirmed two probable houses, cultural deposits containing numerous artifacts, and rich features containing abundant broken pottery and animal bones, mostly deer, indicating possible feasting.

Spiro Landscape Archeology Project

Lockhart has developed a GIS data layer containing a hierarchy of Mississippi period sites throughout the southeastern and midwestern U.S. The data are being used in cultural landscape analyses for Spiro research, as well as Lockhart's research pertaining to the archeology of the Middle/Lower Mississippi River Valley and Southeastern Ceremonial Complex.

- Lockhart developed a GIS data layer for Mississippi period sites in the eastern half of Oklahoma based on data acquired from colleagues at the Oklahoma Archeological Survey (Scott Hammerstedt and Amanda Regnier). The data layer is being used in research associated with modeling aspects of the broader Spiro culture landscape.
- In March and July of 2016, Lockhart helped direct ground penetrating radar surveys at Brown Mound at Spiro. The work is expected to provide detail relating to the original mound extents, interpreted ramps, and mound-building stages.

Archeological Sites Contemporaneous with the Spiro Site (center)



Projects at State-Owned Historic Properties

- In January of 2016, based on the field and data development work he led in 2012, Lockhart provided targeted excavation locations to Jodi Barnes (ARAS-UAM) for her recent excavation of the long-removed smokehouse at the Historic Taylor Plantation in Drew County.
- Lockhart provided GIS georeferencing of Sanborn maps and other planning services associated with proposed remote sensing and test excavation around the 19th century Arkansas State Prison formerly located on the Arkansas State Capital grounds. (with Carl Drexler and Tim Mulvihill)
- Lockhart worked with Tim Mulvihill, Mike Evans, and Jared Pebworth to conduct a remote sensing survey and report for the historic Willhaf property in Van Buren. The work located a probable 19th century cistern and other features for subsurface testing in advance of the structure being used as the ARAS-UAFS research station.

Earthquake Archeology

- Lockhart directed a geophysical survey at the Manley-Usrey site (3MS106) for the purpose of locating prehistoric archaeological features associated with earthquake liquefaction features. Recent excavations directed by Michelle Rathgaber and Marion Haynes have confirmed a prehistoric structure partially divided by an earthquake sandblow as indicated in the remote sensing imagery and interpretations. Additional excavations of the structure were directed by Michelle Rathgaber in March 2016 (also with Tim Mulvihill and Marion Haynes).
- Lockhart is working with Michelle Rathgaber to develop LiDAR topography for intersite and intrasite GIS analyses at Manley-Usrey, Eaker, and related sites.
- With Michelle Rathgaber, Marion Haynes, Tim Mulvihill, and Mike Evans, Lockhart is working to reestablish the grid at the Eaker site where there are numerous unexcavated prehistoric houses and earthquake liquefaction features accurately detailed by geophysical work that was directed by Lockhart more than 10 years ago.

Eaker and Manley-Usrey Area -- High Resolution Digital Elevation Model from LIDAR



Research Station Projects

- Lockhart provided information to locate past, ungeoreferenced excavations at Carden Bottoms east of the farm road. (with Jerry Hilliard, ARAS-UAF)
- Lockhart conferred with Emily Beahm (ARAS-WRI) on plans for geophysical survey at the prehistoric site 3PP1349.
- Lockhart conferred with Mary Beth Trubitt and Katie Leslie (ARAS-HSU) on plans for geophysics and excavation recommendations for 3HS151, and provided a gradiometer survey of the site.
- Working with George Sabo (ARAS Director) and with assistance from John Samuels, Lockhart is analyzing data associated with Arkansas rock art sites—specifically within the categories: petroglyphs, pictographs, anthropomorphs, zoomorphs, geometrics, and others (abstract, indeterminate, etc.).
- At the request of the ARAS-ASU station, Lockhart is developing a methodology for reestablishing the site grid for the Old Town Ridge site. He previously provided gradiometry and published data for the entire fortified Middle Mississippian village that shows the location of a surrounding fortification ditch, palisade, possible entrances, numerous houses, mound extents, plaza, and hundreds of other features.
- Lockhart (with George Sabo and John House) is developing plans to direct archeogeophysical surveys at the important protohistoric Thibault site near Little Rock. The work is being funded by the Quapaw Tribe of Oklahoma.
- Lockhart participated as a co-principal investigator in the 2016 excavations seeking to locate De Soto's cross at Parkin State Park (with Jeffrey Mitchem and Tim Mulvihill). The remains of a large cypress post were excavated and removed intact, and examined by Dr. David Stahle of the University of Arkansas Tree Ring Laboratory. Although preservation was not sufficient for dendrochronological dating, recently processed radiometric date ranges indicate a possible date of AD 1541.

Technological Innovations

- Lockhart is currently acquiring and testing components for a cart-mounted method for collecting large-area gradiometry.
- With ARAS funding, Lockhart researched, specified, and procured a Bartington non-magnetic gradiometer cart and gradiometer upgrades that will enhance speed and coverage for remote sensing data collection on open sites.
- Lockhart is developing a data-processing methodology for visualizing high-resolution magnetic susceptibility data (with Scott Hammerstedt).

Computer Services Program – Academic & Service Activities

Grants, Honors & Awards

- \$32,000 from National Park Service for archeological inventory at Pea Ridge National Military Park; geophysical survey, GIS, and artifact collection at Ruddick's Field
- \$47,000 from National Park Service for archeological inventory at Pea Ridge National Military Park; geophysical survey, GIS, and excavation at Leetown hamlet
- \$600 from Arkansas Archeological Society's Archeological Research Fund to John Samuelsen for lead isotope analysis on human bone from the Crenshaw site, 3MI6

Teaching & Higher Ed

- **UAF Department of Anthropology.** The CSP staff and program engage on a regular basis with undergraduate and graduate students at UAF and other campuses, giving demonstrations and tours of equipment and facilities, assisting with research projects, and providing training.
- Lockhart served on graduate committees at UAF for John Samuelsen (Ph.D., Anthropology), Michelle Rathgaber (Ph.D., Environmental Dynamics), and Amber Nelson Mitchum (M.A., Anthropology).
- Lockhart performed various services and consultation for UA anthropology graduate students Sarah Hunt Shepard and Jessica Howe Cogburn.
- Samuelsen assisted students using the mass spectrometer in the UA Stable Isotope Laboratory.

Professional Service

- Lockhart acted as consultant to National Park Service (Arkansas Post National Memorial, Pea Ridge National Military Park, Midwest Archeological Center), U.S. Forest Service (Ozark National Forest), Arkansas State Parks (Historic Washington, Toltec Mounds State Park, Parkin Archeological State Park), UA Center for Advanced Spatial Technologies (CAST), RBI Consulting, New South Associates, the U.S. Department of Transportation, and the Caddo Nation.
- Lockhart is President-elect of the Caddo Conference Organization and presided over the 2016 conference in Nacogdoches, Texas in the absence of current president Scott Hammerstedt.
- Samuelsen chaired a session at the 2015 Southeastern Archaeological Conference.
- Lockhart chairs the Survey's Personnel Committee, which this year deliberated on the hiring of several research station assistants. He was reelected to another term on the committee.
- Weddle, Lockhart, and Samuelsen are members of the Survey's Web Steering Committee.

Public Service & Outreach

- **Arkansas Archeological Society.** Lockhart provided remote sensing, GIS, interpretation, planning, and precise excavation recommendations for the 2016 Training Program at the Richards Bridge site in northeast Arkansas. He also taught a class on the use of archeogeophysics and near-surface prospecting for Training Program participants.
- **NWA Open Space Plan.** By invitation, Lockhart serves on the Northwest Arkansas Open Space Plan Steering Committee, and as GIS and archeological consultant to assist in land-planning activities associated with preserving and conserving cultural and natural resources in the fastest growing area of the state. Funded by the Walton Family Foundation, the resulting planning document has been widely disseminated. Lockhart is also an active member of the subcommittee on priority property selection.

- **Geophysical Support Activities & Outreach.** Lockhart and Samuelsen conducted geophysical surveys or provided related assistance to various research projects:
 - Lockhart conducted planning and remote sensing for research associated with a prehistoric site endangered by the changing course of the Mulberry River near Oark, AR. The work is funded by the Ozark National Forest.
 - Lockhart provided a report on the Edge Family Cemetery (Caddo Nation) to Dr. Zac Selden at Stephen F. Austin University.
 - Lockhart is providing archeogeophysical instruction, data collection, and interpretation for the historic Hood Cemetery and mound site located in Crittenden County. In May 2016, Lockhart provided a full written report to the Hood family detailing the work and interpretations associated with this project. Results indicated the location of Hood family graves, as well as new information on the original size and development of the two Woodland period mounds on the site.
 - With Tim Mulvihill, Lockhart processed remote sensing data and images for the discovery of unmarked graves at Norwood Cemetery in Sebastian County.
 - Lockhart made an invited presentation to the Fayetteville Historic District Commission on the topic of research potential for the historic African American cemetery adjoining the National Cemetery grounds in Fayetteville. The project will eventually involve proof-of-concept testing of remote sensing, LiDAR, and aerial photography on-site.
 - In July 2016, Lockhart conducted a remote sensing proof-of-concept survey for the Oak Cemetery Association, Fayetteville Historic District Commission, and Fayetteville Planning Department. Lockhart's interpretations of electrical resistance and ground penetrating radar data indicate the presence of unmarked graves in Fayetteville's historic African American cemetery.
 - Lockhart met on-site with a representative regarding the use of remote sensing, LiDAR, and historical aerial photography associated with the historic King's Cemetery dating to the early nineteenth century settlement of the Middle Fork of the White River in Washington County.
 - With Tim Mulvihill, Lockhart provided processed geophysical imagery for research at Blaylock Cemetery in Van Buren.
 - At the request of Fayetteville citizens Tom and Tammy Smith, Lockhart researched an abandoned and unmarked antebellum cemetery near the downtown area. Lockhart determined that the small family cemetery contained mid nineteenth century graves of prominent founding Gregg and Van Hoose families.



Publications Program

Program Reorganization

The reorganized Publications Program is working well. As determined through discussions among all relevant staff, the program is now governed by the Publications Committee according to agreed procedures, with oversight by the Survey Director. Jamie Brandon (ARAS-UAF) as committee Chair manages the submission and review process. Deborah Sabo is Publications Editor. She works with authors to prepare accepted manuscripts for publication, doing all final editing, book design, layout, and file preparation for the printer. This year she also began the process of investigating new print shop options for our books. It was decided that the committee would not rotate membership and would retain its present chairman for the time being, while the program gets all procedures into place.

New Publications

Excavations at the Howe Pottery, A Late Nineteenth-Century Kiln in Benton, Arkansas, by C. Drew Buchner, was published in September 2015 as Research Series No. 66. This monograph presents the results of archeological excavations at the Howe Pottery site (3SA340) in Benton, Arkansas, during 2010, with summaries of previous investigations at that site and other known kiln sites in Arkansas. The Howe Pottery site is National Register of Historic Places eligible, and is significant for its unique state of preservation, coupled with the general lack of archeological data for the late nineteenth-century pottery industry, which was important in the Benton area. Archival records suggest the pottery was established before 1886 and operated until 1898–1899. The archeological investigations uncovered

Publication Sales and Distribution for 2015–2016

	Research Series	Research Reports	Popular Series	Technical Papers	Total
No. of Titles	66	32	5	11	113
Sold	595	4	126	74	799
Free	71	6	32	1	110
Total	666	10	158	75	909

The Survey's Publications Program consists of three series: the Research Series, Technical Papers, and Popular Series present the results of Survey research projects and submissions from other qualified authors to a wide range of audiences, from professional scholars and students to public school teachers, government officials, and the general public. A Publications Committee reviews submissions internally and mediates an external review process. Program staff all have additional responsibilities in other capacities at the Survey. The Publications Program generates its own revenue and is self-supporting.

Publications Committee for 2015–2016: Jamie Brandon (Chair), Jodi Barnes, Jerry Hilliard, Elizabeth Horton, Juliet Morrow, and Deborah Sabo (*ex officio*). The Committee reviews submissions and met this year to elect a chairperson and discuss operating procedures for the redeveloped Publications Program.

Deborah Sabo (Editor) compiled, edited, and designed the Annual Report of the Survey for FY 2015–2016. For the Research Series, she completed work on RS67 (published in July 2016) and began work on RS68 (to be published in 2017). She participated in several meetings this year for planning the Survey's new website, contributed content, and acted as copy editor for articles submitted to the website by other ARAS staff. Ms. Sabo oversees the archive of publication masters and responds to queries about out-of-print volumes. She is (*ex officio*) a permanent member of the Survey Publications Committee. She edits and updates the Survey's educational flyers, which are available on the website as downloadable PDFs, helps to create new flyers as needed, designs and produces the Program for the Arkansas Archeological Society's Annual Meeting, edits and produces reports for the SRP program, and contributes to other projects where editorial assistance is needed (including this year the final report on excavations at the Wild Violet site in Logan County, reports on Elkins Ferry and Wallace's Ferry for the ARAS-SAU station, several contributions to the ARAS website, and other products). As editor of the Popular Series, she continued consultation with the author of a planned replacement for the Survey's bestselling *Crossroads of the Past*, long out of print, and another planned Popular Series volume on Arkansas boat wreck sites. She is the editor of the Arkansas Archeological Society Newsletter, *Field Notes*, published six times per year, and serves on the Society's Executive Committee. She also serves on the ARAS Web Steering Committee.

Lisa Davison (Accountant) managed publication sales, distribution, inventory, and accounting. She prepares monthly sales and inventory reports, and works tirelessly to clear the books of outstanding invoices. Ms. Davison handles all communications with our college bookstore customers, the major market for our bestselling RS44.

a trove of new information, especially about kiln construction and changes in use of the pottery over time. Local and national trends in traditional stoneware pottery production are tracked via study of the Howe Pottery's archeological record.

During the year Deborah Sabo completed the editorial work, design and layout for *Research, Preservation, Communication: Honoring Thomas J. Green on His Retirement from the Arkansas Archeological Survey*, edited by Mary Beth Trubitt. This volume presents collected papers springing from a symposium organized by Mary Beth Trubitt at the 2014 annual meeting of the Society for American Archaeology to honor the career of Dr. Thomas J. Green, who served as ARAS Director for 21 years. The contents reflect the Arkansas Archeological Survey's tripartite mission of science, public archeology, and education. The book was ready for publication as Research Series No. 67 at the end of the fiscal year and appeared in July 2016.

Forthcoming Publications

A manuscript by Duncan McKinnon, of the University of Central Arkansas, is planned as Research Series No. 68 with

the working title *The Battle Mound Landscape*. It is scheduled to appear during 2017. Based upon his doctoral dissertation from University of Arkansas, the book explores the uses of the landscape at the Battle Mound site in southwestern Arkansas as revealed by records from past excavations and McKinnon's archeogeophysical research at the site. Editorial work and layout are already far along for this volume.

Popular Series Books

Deborah Sabo continued developmental work on two new volumes for the Survey's Popular Series, books designed for general audiences. One is conceived as a replacement for the out-of-print *Crossroads of the Past*, a summary of cultural development in Arkansas from about 13,000 years ago till the arrival of Europeans. Working title for this new volume, written by ARAS Director George Sabo III, is *Ways of Our Ancestors: Pre-historic Indians of Arkansas*. A revised text of the book has been completed, and work now needs to be done on illustrations.

The other is a brief discussion of riverine boat wreck sites in Arkansas, written by retired ARAS-WRI research station

archeologist Skip Stewart-Abernathy. It is based in part on popular public lectures delivered around the state by Stewart-Abernathy, who directed emergency salvage archeology at the West Memphis Boat Wrecks site in 1988. This year progress was made with identifying illustrations for the book and narrowing those for which permission needs to be obtained. Also in early development by Survey archeologists for the Popular Series are titles related to historical archeology in Arkansas and books about Parkin and Toltec State Parks.

Sales & Distribution

Publication sales and distribution numbered 909 volumes in all series, down slightly from last year. This includes 110 volumes given away as complimentary copies, including books distributed to colleagues, teachers, reviewers, libraries and archives, and students, and books contributed to the Student Paper Prize at the Southeastern Archaeological Conference. Our bestselling book continues to be RS44 (*Standards for Data Collection from Human Skeletal Remains*) with 454 units distributed this year (17 complimentary, 437 sold). Sales of our Popular Series books (*Paths of Our Children: Historic Indians of Arkansas* and *Rock Art in Arkansas*) are stable and we continued

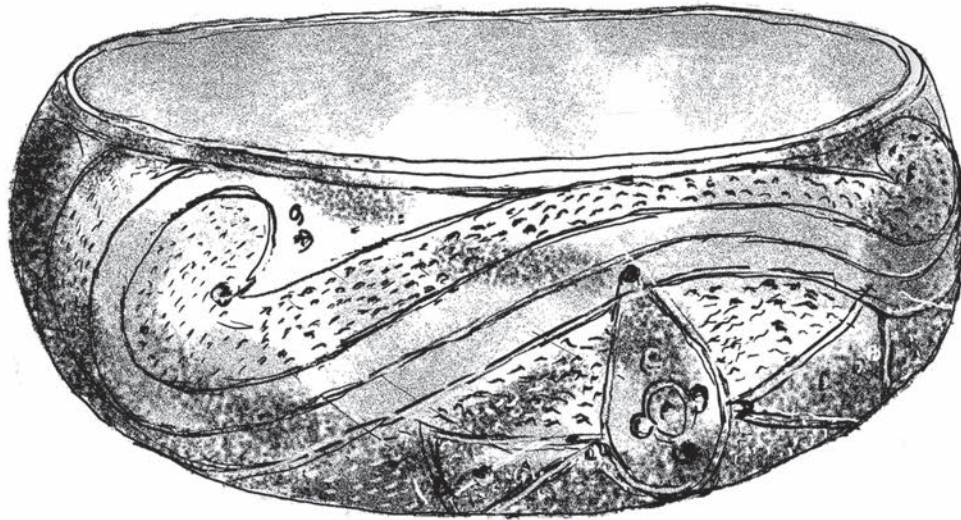
to distribute free copies, including 30 copies of PS05 *Rock Art in Arkansas* at a teacher's workshop. Sales of Technical Paper 11 (*Handbook of Soil Description*) more than doubled, and we are pleased with distribution numbers of our newest volume, RS66.

Staff members sold books this year at the Caddo Conference annual meeting in Nacogdoches, Texas (\$60 in sales), the annual meeting of the Arkansas Archeological Society in Hot Springs (\$26.22 in sales), and the Arkansas Archeological Society Training Program in Parkin, Arkansas (\$317 in sales). As usual, we distributed about 80 complimentary copies of our new publication (RS66) to various offices and libraries around the state.

Books On the Web

This year, with the launch of the new ARAS website, we were able to reevaluate the possibility of placing certain out-of-print Research Series volumes on our Publications web pages as free PDFs. The titles to be made available were under review during the year. Eventually, out-of-print volumes in the SWDO series (Southwest Division Overview volumes produced under contract for the U.S. Army Corps of Engineers in the 1980s and 1990s and still in demand by agency land managers and contractors and some students) were placed on the website.

Photographic and Graphic Arts Support



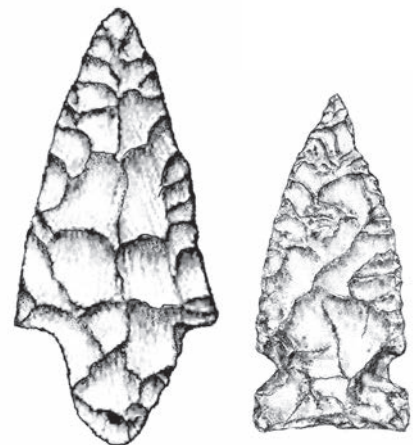
Photographic and graphic arts support at the Survey include a darkroom and desktop computer graphic arts facilities. Visual documentation is an essential part of archeology for research, publication, archives, and records management. The research stations, the registrar's office, SRP, the publications program, and the various outreach activities all benefit from the productions of this office.

M. Jane Kellett joined the Survey in 1977 while still working on a graduate degree in Art at UAF. She began a full-time position in 1979, drafting maps and other graphics, and added photographic duties in 1982.

Jane Kellett develops and prints black and white film for all the stations and coordinating office staff, duplicates slides for outreach and professional meeting presentations, and maintains a digitized archive of 35 mm black and white negatives and digital camera images. She prepares maps, figures, illustrations, and photographic plates for Survey publications, museum collections, and staff publications in professional journals and books. She does layout and graphics for a variety of outreach materials produced by the Survey. Examples of Kellett's work illustrate this page: drawings of French Fork style pot and Gary and Scallorn projectile points made for the "Gathering, Gardening & Agriculture" 5th Grade Curriculum Project.

2015–2016 Activities

- 20 rolls of black and white film processed and catalogued.
- 420 images scanned from black and white negatives, color slides and film, digital images, and prints for research, teaching aids, reprints, journal and newsletter articles, poster/public presentations, station archives, and academic publications.
- 120 graphic and design works, maps, graphs, posters, and illustrations.
- 600 illustrations and plates consisting of approximately 800 artifacts photographed: prehistoric and historic pottery and artifacts for grants, publications, research, presentations, museum collections, and public and professional meetings.
- 150 graphic products for conferences, classes, volunteers, and lab work.



Partners in Preservation: Survey & Society



Survey Liaison to Arkansas Archeological Society

Marilyn Knapp became the Survey's research assistant in the role of liaison with the Arkansas Archeological Society beginning in July 2013. She has a B.A. degree in Anthropology from the University of Arkansas and previously worked in the office of the Vice Chancellor for Business Affairs on the UAF campus. She is a long time member and past president of the Arkansas Archeological Society. Located at the coordinating office in Fayetteville, Knapp is responsible for keeping the Society membership database up to date, assisting the Society's officers, working on logistical arrangements for the summer Training Program, and acting as Field Secretary. Knapp also assists with preparations and logistics for the Society's Annual Meeting and manages the Certification Program's database. She coordinates many other programs and activities jointly operated by the Survey and Society, such as Archeology Month and other outreach events. She also maintains and manages Society records and archives, coordinates communications among Board members and arranges meetings, helps with social media and other public education technology, attends public events, manages distribution of the Society's newsletter, coordinates communications about field and lab projects with volunteers, and many other activities.

Society Board of Advisors

A Board of Advisors consisting of three members for each Survey research station is elected by the Society membership at large. BOA members meet yearly with their respective station archeologists, discuss the functions and needs of the research stations, and help ensure that the cooperative relationship between Survey and Society moves forward productively.

AAS Chapters

The Arkansas Archeological Society's total membership now averages around 600. Seven active chapters across the state work closely with the Survey research archeologists in their areas. Chapters have monthly meetings with a guest speaker or other program that is open to the public. Survey archeologists are frequent presenters and often also serve as newsletter editors and

program organizers. Survey stations host volunteer work sessions in the laboratories, and Society members participate in Survey field and lab projects throughout the year. A struggling chapter in the Little Rock area disbanded a few years ago, but the Toltec Mounds station archeologist has continued outreach in central Arkansas with a Toltec Lecture Series in Little Rock and other volunteer activities at Toltec Mounds State Park.

Society Volunteers

Many Survey research projects in the field and laboratory depend on volunteers, mostly Society members. Altogether, volunteers contributed over **10,376 hours** to archeological projects across Arkansas in 2015–2016, including 4992 hours at the annual Training Program. This citizen participation demonstrates the level of interest and support for archeology.

Many of the Survey's activities are in cooperation with the Arkansas Archeological Society, a nonprofit educational organization for interested people of all ages and vocations. The Survey and the Society have a unique and productive relationship based upon common interests of professional and amateur archeologists to protect the archeological heritage of the state, to learn about Arkansas's past, and to present that knowledge to the public. The Society elects a Board of Advisors who conduct yearly reviews of the Survey's goals, accomplishments, and needs. Society members provide proactive support for the Survey's mission of education, research, and service, and constitute a pool of skilled volunteers without whose help this mission would be much less efficiently carried out. To make the most of this energetic volunteer support, the Survey and Society jointly manage a Training and Certification Program for amateur archeologists. It was the first such program in the country and has served as a model for archeological organizations in other states and around the world.

The Arkansas Archeological Society

Arkansas River Valley Chapter, Russellville
Ark-Homa Chapter, Fort Smith
Central Mississippi Valley Chapter, Jonesboro
Kadohadacho Chapter, Magnolia

Ouachita Chapter, Hot Springs
Tunican Chapter, Monticello
Ko-ko-çi Chapter, Fayetteville

The Site Stewards Program

Another role for Society volunteers is the Site Stewards Program, which enlists individuals to monitor the condition of important archeological sites. The Survey provides training and guidance for site stewards via a workshop (State Archeologist Ann Early taught two workshops this year) plus mentoring for individual stewards. Gary Knudsen was the chair of the Stewardship Committee during 2015–16; he has worked to reassess how prospective Stewards are evaluated and prepared to carry out their mission, and to grow the program. Several new site stewards were approved for the program this year. At the end of the fiscal year, Meeks Etchieson took over this committee and Knudsen was appointed chair of the Board of Advisors.

Archeological Research Fund

The Society began awarding grants from its Archeological Research Fund in 1989. The fund is composed of donations and money obtained in fund-raising raffles. Interest in the account is distributed as grants to projects in which Society members have participated.

Grant recipients announced at the 2015 annual meeting in Hot Springs were Jerry Hilliard (ARAS-UAF), \$1190 for two AMS dates for Breckenridge rock shelter, 3CR2; Mary Beth Trubitt (ARAS-HSU), \$710 for an AMS date for site 3MN298; John Samuelson (ARAS-CSP), \$600 for lead isotope analysis on human bone from the Crenshaw site, 3MI6; Robert Scott (ARAS-UAPB), \$595 for an AMS date on pottery from the Open Lake site; and Jeff Mitchem (ARAS-PAR) \$1170 for AMS dates for the Richards Bridge site, 3CT11/22.

Annual Meeting

The 2015 meeting was held September 25–27 in Hot Springs. There were 79 registrants. Marilyn Knapp (ARAS) (Society Past

President) was Program Chair and the Ouachita Chapter of the Society made local arrangements. Of the 14 scheduled papers, 9 were by Survey staff. The keynote speaker, John Kelly (Senior Lecturer in Archaeology, Department of Anthropology, Washington University in St. Louis), spoke on "Mapping Cahokia: America's First City." Deborah Sabo (ARAS) designed and managed printing of the meeting Program.

Society Publications

The Society has two publications, a bimonthly newsletter, *Field Notes*, and an annual Bulletin, *The Arkansas Archeologist*. Articles for the Bulletin are subject to external peer review. Deborah Sabo (research assistant for the Survey coordinating office and Publications Program) is Editor of *Field Notes*. The newsletter format emphasizes short substantive articles about archeological research in Arkansas, and also publishes relevant information about the Society's statewide activities and business matters, plus occasional book reviews and announcements.

Several Society Chapters distribute their own newsletters (primarily electronic) with regional news and announcements, plus there is a statewide email list to notify members when volunteers are needed for emergency projects.

Glen Akridge of Fayetteville is editor of *The Arkansas Archeologist*. Volume 54 was distributed to members during 2015. This issue contained two articles by Jerry Hilliard (ARAS-UAF) and one by Jack Ray of Missouri State University. *The Arkansas Archeologist* is abstracted and indexed by ANTHROPOLOGICAL LITERATURE and EBSCO PUBLISHING, INC. The Society receives a royalty from EBSCO which helps to pay for publication costs.

Archeology Month – March 2016

Archeology Month is a multifaceted public education concept to promote awareness and appreciation of Arkan-



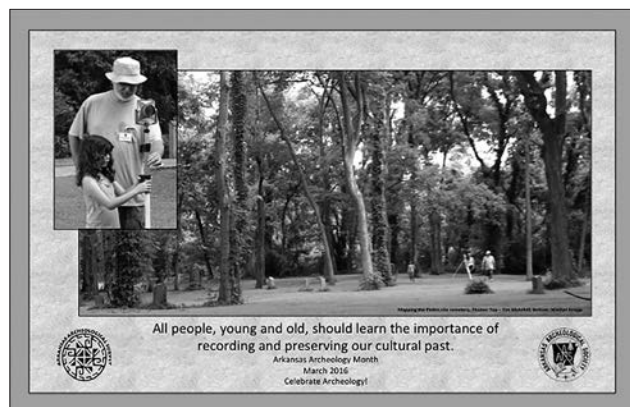
Students attend an Archeology Month “Archeology Day” event on campus organized by the Arkansas Tech Anthropology Club. At left is retired emeritus station archeologist Skip Stewart-Abernathy, who served as the ARAS research archeologist on the Russellville campus for many years before the station moved to WRI.

Arkansas archeology. The theme each year is *Celebrate Archeology!* which allows for flexibility in programming and a focus on research projects or other celebrations that are in progress. Marilyn Knapp managed the Survey contributions to Archeology Month by working with the Society’s Archeology Month Committee Chair, sending out notices to potential participants, collecting information on events and compiling them into a printed Events Brochure, distributing information and posters to a mailing list, and updating information for the Archeology Month web pages.

Some 1700 people attended the 47 scheduled programs at 35 venues across the state, including 7 museums, 7 state parks, 7 schools and colleges, and other locations such as libraries and

nature centers. Events included illustrated talks, exhibits, tours, artifact identification programs, and hands-on activities. Highlights included a continuation of last year’s successful “Archeology Minute” radio spots broadcast on KUAF and archived on their website, an “Archeology Day” in Fayetteville featuring flintknapping, basketry/weaving, spear throwing, and other tool demonstrations, and the second annual ArcheOlympics event at Toltec Mounds State Park with archeology-related games for teams to compete. Just a few examples of other activities led by ARAS staff included a spring break dig at the historic Taylor House coordinated with a youth archeology project involving Desha County 4H, a class at Osher Lifelong Learning Institute, an Open House at WRI, and a variety of talks and demonstrations.

Donations from Archeological & Environmental Consultants LLC in Austin, Texas, Parkin Archeological State Park, and the Bill Jordan Public Education Fund of the Arkansas Archeological Society helped support Archeology Month 2016. The poster (shown at left) was sponsored by the Arkansas Archeological Society and designed by Marilyn Knapp. It featured images from the 2015 Training Program and was included in the national display of Archeology Month posters at the 2016 Society for American Archaeology meeting in Orlando, Florida. The full color poster can be seen on the ARAS website at <http://archeology.uark.edu/learn-discover/archeology-month/archeology-month-2016/>



“Society Dig”: The Training & Certification Program

This program is co-managed with the Arkansas Archeological Survey. Every year in June a two-week field school for amateurs is conducted at an archeological site chosen according to criteria of ongoing research interests at the Survey stations, educational potential, and logistical needs. The program requires extensive preparation by Survey staff along with a committee of Society members beginning months in advance. Field and laboratory work are supervised by Survey staff, other professionals, and qualified Society members. Survey archeologists and other qualified individuals also teach a series of five-day seminars on various archeological topics during the Training Program. Those who complete the required number of hours in the field, lab, and classroom and demonstrate their abilities may earn optional Certificates in several categories. The Survey stations devote years to analyzing the material collected during the summer “Digs,” usually with help from Society volunteers. Training Program participants must be members of the Arkansas Archeological Society. Ages eight and up are welcome, but children under 18 must be accompanied by a registered adult participant. The Training Program is our most visible outreach activity and has been widely imitated throughout the United States.

The 2016 Training Program at a Crittenden County Site 3CT11/22

Fieldwork

The 2016 Training Program returned to 3CT11/22, a Native American village site near Parkin Archeological State Park. The project was a joint effort of the Arkansas Archeological Survey and the Arkansas Archeological Society, with the generous cooperation of Parkin Archeological State Park, the City of Parkin, and the site landowners. Station archeologists Jeffrey Mitchem (ARAS-Parkin) and Tim Mulvihill (ARAS-UAFS) co-directed the fieldwork. Jami Lockhart directed geophysical survey as part of the research design. The site, known as Richards Bridge, is a Mississippian (AD 1000–1650) village belonging to a culture known by archeologists as the Parkin phase. Its inhabitants would have been closely associated with the larger, more complex village site and ceremonial mound preserved at Parkin Archeological State Park.

There were 74 registered attendees at this year’s Training Program. ARAS staff who participated as field and lab supervisors, seminar instructors, or by providing other kinds of logistical and professional assistance included: Emily Beahm, Jamie Brandon, Jessica Cogburn, Brandy Dacus, Carl Drexler, Ann Early, Katy Gregory, Elizabeth Horton, John House, Marilyn Knapp,

Jami Lockhart, Jeff Mitchem, Julie Morrow, Tim Mulvihill, Michelle Rathgaber, Lydia Rees, George Sabo, Bob Scott, Sarah Stuckey, and Mary Beth Trubitt.

Geophysical surveys were first conducted across the site, which indicated numerous possible burned house floors. The 2015 excavations aimed to uncover four of these possible houses, to see if the houses were arranged in a pattern, and to obtain architectural information to compare with structures that have been excavated at the Parkin site. Research also included collecting soil samples for flotation from structure floors, pit features, and any other locations that promise to contain organic remains. The work in 2016 continued and extended these efforts, and revealed much needed additional informa-



Elizabeth Horton (ARAS archeologist at Toltec Mounds State Park) explains her work at the Richards Bridge site to visiting Desha County 4H youth during a tour of the Training Program excavations. Photo by George Sabo.

tion about the structures, including their size, as shown by the post mold dimensions and patterns, significant pit features, and hearths. Goals of the 2016 program were met. Society members contributed almost **4992 volunteer hours** to Arkansas archeology through their efforts at the Training Program.

Seminars & Certification Program

The Certification Program is an optional offering for Society members who wish to pursue classroom and practical training in more depth, for enrichment and to earn recognition at various levels. Participants work under supervision to gain additional experience by volunteering for lab and field projects and completing necessary seminars. They move along at their

own pace and according to individual interests.

Seminars taught at the Dig this year were Basic Excavation (two sessions, taught by Mary Beth Trubitt and John House), Basic Lab (taught by Michelle Rathgaber), Site Survey (taught by Jessica Cogburn), Ceramics (taught by Jamie Brandon), Archeogeophysics (taught by Jami Lockhart), Human Osteology (taught by Mel Harvey), and Photography (taught by George Sabo).

Certificates earned by members are presented each year at the Annual Meeting. During the 2015 meeting at Hot Springs, the following Certificates were presented: **Provisional Crew Member**—Jamaal Harvey, Connie Masters. **Provisional Lab Technician**—Russell Poole, Connie Masters.

Accounting & Administrative Staff

Assistant Director for Fiscal Affairs

Rachel Whitman

Rachel Whitman was hired as Assistant Director for Fiscal Affairs in November 2015. Whitman previously was Assistant Manager for Fiscal Affairs at Arkansas Tech University. She is responsible for all budgeting functions of the Survey and works closely with the Survey Director. This includes fiscal year budgets, quarterly budgets, and annual budgets. She balances our accounts monthly against the Departmental Budget Reports in order to stay within our allocated fiscal year budget. She also manages the finances for all grants and contracts the Survey is awarded. She is in charge of all building maintenance functions and has worked closely with the University's "Going Green" Team to implement changes to the Survey building.

Survey Research Assistant/Accountant/Publications Accountant

Lisa Davison

Lisa Davison is the Departmental Representative for Human Resources, Benefits, Payroll, Leave, Vehicle Fleet, Travel, Procurement, Property Accounting, and Financial and Business Affairs. As Accountant for Publications she is responsible for all accounting functions, book orders, shipping, receiving, reports, and billing issues. The University continues to implement changes that require training. Ms. Davison completes certification in each new program.

Administrative Assistant I

Nancy Smith

Nancy Smith was hired as Administrative Assistant in November, 2014. Besides general office management duties such as greeting visitors, answering the phone, distributing the mail, and keeping up with supplies, Nancy also helps the Registrar by scanning reports for AMASDA, scanning SHPO letters to station archeologists, and scanning and filing site reports. She helps all her coworkers with printing projects, scanning and filing, and also shipping letters and packages. She also performs specific duties for the Publications Program, including proofreading, and other functions as assigned by the Director.

How to Contact the Arkansas Archeological Survey



For the Director, State Archeologist, and all Coordinating Office units (Registrar, CSP, SRP, Publications):

Arkansas Archeological Survey (ARAS)
Coordinating Office
2475 N. Hatch Ave.
Fayetteville, AR 72704
479.575.3556

Research Stations:

Arkansas Archeological Survey (ARAS-PAR)
Parkin Archeological State Park
P.O. Box 241
Parkin, AR 72373-0241
870.755.2119

Arkansas Archeological Survey (ARAS-TMRS)
Toltec Mounds Research Station
490 Toltec Mounds Road
Scott, AR 72142-9212
501.961.2420

Arkansas Archeological Survey (ARAS-ASU)
ASU-Jonesboro
P.O. Box 820, ASU
State University, AR 72467
870.972.2071

Arkansas Archeological Survey (ARAS-UAPB)
Mail Slot 4814, UAPB
Pine Bluff, AR 71601
870.535.4509

Arkansas Archeological Survey (ARAS-UAM)
P.O. Box 3087, UAM
Monticello, AR 71656-3087
870.460.1090

Arkansas Archeological Survey (ARAS-SAU)
SAU Campus, MSC 9381
Magnolia, AR 71754-9381
870.235.4229

Arkansas Archeological Survey (ARAS-HSU)
P.O. Box H-7841, HSU
Arkadelphia, AR 71999-0001
870.230.5510

Arkansas Archeological Survey (ARAS-WRI)
Winthrop Rockefeller Institute
Petit Jean Mountain
1 Rockefeller Drive
Morrilton, AR 72110
501.727.6250

Arkansas Archeological Survey (ARAS-UAF)
UAF Research Station
2475 N. Hatch Ave.
Fayetteville, AR 72704
479.575.3556

Arkansas Archeological Survey (ARAS-UAFS)
P.O. Box 3649, UAFS
Fort Smith, AR 72913-3649
479.788.7812

<http://archeology.uark.edu>

Appendix 1. Reports & Publications by ARAS Staff during 2015–2016*

Barnes, Jodi

- 2015 The Archeology of Health and Healing at Hollywood Plantation. *Drew County Historical Journal* 30:18–27.
- 2015 *Monitoring Restoration of Rohwer Relocation Center Memorial Cemetery*. Report submitted to the University of Arkansas at Little Rock. Arkansas Archeological Survey, Fayetteville.
- 2015 *Behind the Scenes of Hollywood: Science and Problem Solving at Hollywood Plantation*. Co-authored with the Tunican Chapter of the Arkansas Archeological Society, Arkansas Archeological Survey, and University of Arkansas Division of Agriculture-4H. Tunican Chapter of the Arkansas Archeological Society, Monticello.
- 2016 From Caffè Latte to Catholic Mass: The Archeology of a World War II Italian Prisoner of War Camp. In *Research, Preservation, Communication: Honoring Thomas J. Green on His Retirement from the Arkansas Archeological Survey*, edited by Mary Beth Trubitt, pp. 245–268. Research Series No. 67. Arkansas Archeological Survey, Fayetteville.
- 2016 When the Dams Broke in South Carolina. *Field Notes, Newsletter of the Arkansas Archeological Society* 390 (May/June):3–5.
- 2016 Sharing Archeology with the Public at UAM. *Field Notes, Newsletter of the Arkansas Archeological Society* 388 (January/February):3–8.

Brandon, Jamie C.

- 2015 Vernon R. Perry, 1933–2015. *Field Notes, Newsletter of the Arkansas Archeological Society* 386 (September/October):7–8.
- 2015 Death Notice: Hester A. Davis and Charles R. McGimsey. *The SHA Newsletter* 48(1):43.
- 2016 *Regnat Populus: The Intersection of Historical Archeology Research and Public Service in Arkansas*. In *Research, Preservation, Communication: Honoring Thomas J. Green on His Retirement from the Arkansas Archeological Survey*, edited by Mary Beth Trubitt, pp. 174–182. Research Series No. 67. Arkansas Archeological Survey, Fayetteville.

Brandon, Jamie C., and Jerry E. Hilliard

- 2016 Zachary Taylor and the Sisters of Mercy: An Archeology of Memory, Landscape, Gender, and Faith on Arkansas's Western Frontier. In *Historical Archeology of Arkansas: A Hidden Diversity*, edited by Carl G. Drexler, pp. 111–127. University of Tennessee Press, Knoxville.

Bumgardner, Mistic, Brenae Hall, Brandon McPherson, Madison Moncrief, Lyndie Mullins, Priya Rana, Kenny Bragg, Chase Owen, BreeAnn Lanthrip, **Jodi Barnes**, Don Bragg, **Katy Gregory**, and Hope Bragg

- 2015 Landscape Change at Hollywood Plantation: Archeology at the Taylor House (3DR26). *Field Notes, Newsletter of the Arkansas Archeological Society* 387 (November/December):3–9.

Cande, Kathleen H.

- 2015 *Archeological Excavations at the 1828 Rice-Upshaw House (3RA466), Randolph County, Arkansas*. Final Report, ARAS Project No. 08-02. Submitted to Black River Technical College, Pocahontas.

Drexler, Carl G. (editor)

- 2016 *Historical Archaeology of Arkansas: A Hidden Diversity*. University of Tennessee Press, Knoxville.

Drexler, Carl G.

- 2016 Arkansas Historical Archaeology through Time. In *Historical Archaeology of Arkansas: A Hidden Diversity*, edited by Carl G. Drexler, pp. ix–xlv. University of Tennessee Press, Knoxville.
- 2016 Thunder in the Hollow: The Archaeology of Missouri State Guard Artillery at the Battle of Pea Ridge. In *Historical Archaeology of Arkansas: A Hidden Diversity*, edited by Carl G. Drexler, pp. 163–190. University of Tennessee Press, Knoxville.

Hilliard, Jerry E.

- 2015 Charles and Katherine Figley's Legacy to Arkansas Archeology. *The Arkansas Archeologist* 54:1–16.
- 2015 The Charles Bartlett Donation from the Tom's Brook Shelter (3JO1). *The Arkansas Archeologist* 54:17–35.
- 2016 Breckenridge Shelter (3CR2) Radiocarbon Dates from an Early Hearth. *Field Notes, Newsletter of the Arkansas Archeological Society* 388 (January/February):12–13.

* ARAS authors are shown in boldface for works coauthored with non-ARAS colleagues

Lockhart, Jami J.

- 2016 More Than Just Remotely Interested: Dr. Tom Green and Arkansas Archeological Survey Geophysics. In *Research, Preservation, Communication: Honoring Thomas J. Green on His Retirement from the Arkansas Archeological Survey*, edited by Mary Beth Trubitt, pp. 103–114. Research Series No. 67. Arkansas Archeological Survey, Fayetteville.

McIntyre, Joshua, Emily Miller, Kenita Vanderslice, and **Mary Beth Trubitt**

- 2015 New Results on Three Projects from the Survey's HSU Research Station. *Field Notes, Newsletter of the Arkansas Archeological Society* 385(July/August):3–5.

Morrow, Juliet

- 2016 Evidence for Paleoindian Spirituality and Ritual Behavior: Large Thin Bifaces and Other Sacred Objects from Clovis and Other Late Pleistocene-Early Holocene Cultural Contexts. In *Research, Preservation, Communication: Honoring Thomas J. Green on His Retirement from the Arkansas Archeological Survey*, edited by Mary Beth Trubitt, pp. 18–65. Research Series No. 67. Arkansas Archeological Survey, Fayetteville.

Sabo, George III

- 2016 The Future of Arkansas Archeology. In *Research, Preservation, Communication: Honoring Thomas J. Green on His Retirement from the Arkansas Archeological Survey*, edited by Mary Beth Trubitt, pp. 208–222. Research Series No. 67. Arkansas Archeological Survey, Fayetteville.

Samuelsen, John R.

- 2016 A Reanalysis of Strontium Isotopes from a Skull and Mandible Cemetery at the Crenshaw Site: Implications for Caddo Interregional Warfare. *Journal of Archaeological Science: Reports* 5:119–134. <http://dx.doi.org/10.1016/j.jasrep.2015.11.012>

Trubitt, Mary Beth (editor)

- 2016 *Research, Preservation, Communication: Honoring Thomas J. Green on His Retirement from the Arkansas Archeological Survey*. Research Series No. 67. Arkansas Archeological Survey, Fayetteville.

Trubitt, Mary Beth

- 2016 Report on the 2015 Caddo Conference in Arkadelphia. *Caddo Archeology Journal* 26:80–86.
- 2016 Documenting Caddo Pottery: The JEC Hodges Collection. Electronic document, <http://archeology.uark.edu/learn-discover/current-research/hodges/>.
- 2016 New Novaculite Quarry Found in Ouachita National Forest. Electronic document, <http://archeology.uark.edu/learn-discover/current-research/quarry/>.
- 2016 *Arkansas Novaculite: A Virtual Comparative Collection*. Limited distribution report prepared by the Arkansas Archeological Survey, Henderson State University Research Station, Arkadelphia.
- 2016 Thomas J. Green's Approach to Archeology. In *Research, Preservation, Communication: Honoring Thomas J. Green on His Retirement from the Arkansas Archeological Survey*, edited by Mary Beth Trubitt, pp. 1–8. Research Series No. 67. Arkansas Archeological Survey, Fayetteville.

Trubitt, Mary Beth, Leslie L. Bush, Lucretia S. Kelly, and **Katie Leslie**

- 2016 Ouachita Mountains Foodways: Preliminary Results from 2013–2014 Excavations at 3MN298. *Caddo Archeology Journal* 26:50–79.

Trubitt, Mary Beth, and Katie Leslie

- 2015 Identity & Community in the Ouachita Mountains. Electronic document, <http://archeology.uark.edu/learn-discover/current-research/ouachita-mountains/>.
- 2016 2013–2014 Society Training Program Excavations: The Dates. *Field Notes, Newsletter of the Arkansas Archeological Society* 390 (May/June):6–14.

Trubitt, Mary Beth, Timothy K. Perttula, and Robert Z. Selden, Jr.

- 2016 Identifying Ceramic Exchange and Interaction between Cahokia and the Caddo Area. In *Research, Preservation, Communication: Honoring Thomas J. Green on His Retirement from the Arkansas Archeological Survey*, edited by Mary Beth Trubitt, pp. 87–102. Research Series No. 67. Arkansas Archeological Survey, Fayetteville.

Appendix 2. Papers, Symposia & Workshops by ARAS Staff during 2015–2016*

Barnes, Jodi

- 2015 Nails, Tacks, and Hinges: The Archeology of Construction of Camp Monticello, a World War II Prisoner of War Camp. Paper presented at the 72nd Annual Meeting of the Southeastern Archaeological Conference, Nashville, TN.
- 2015 Nails, Tacks, and Hinges: The Archeology of Construction of Camp Monticello, a World War II Prisoner of War Camp. Paper presented at the South Central Historical Archaeology Conference, Jackson, MS.
- 2016 Material Masculinities: Archeology of a World War II Italian Prisoner of War Camp. Paper presented at the Annual Meeting of the Society for American Archaeology, Washington, D.C.
- 2016 Nails, Tacks, and Hinges: The Construction of a World War II Prisoner of War Camp in Southeast Arkansas. Paper presented at the 75th Annual Meeting of the Arkansas Historical Association, Little Rock, AR.

Brandon, Jamie C.

- 2015 Mountain Modernity and Archeology in the Arkansas Ozarks: A Case Study from Van Winkle's Mill. Paper presented at the 9th Annual Ozarks Studies Symposium, West Plains, MO.
- 2016 Invited panelist on a panel about Native American Tourism in Arkansas. Presented at the Arkansas Governor's Conference on Tourism, Springdale, AR.

Brandon, Jamie C., Kimberly Pyszka, and Bobby Braly

- 2015 Preliminary Archeology at the Methodist Manse in Historic Cane Hill, Arkansas. Paper presented at the Annual Meeting of the Arkansas Archeological Society, Hot Springs, AR.

Brandon, Jamie C., and Lydia I. Rees

- 2016 Samuel Dellinger and the Archeology of Arkansas Ozark Bluff Shelters. Paper presented at the 75th Annual Meeting of the Arkansas Historical Association, Little Rock, AR.

Drexler, Carl G.

- 2015 Building the Prison Walls: Foundations for Archeological Research at Arkansas's First Penitentiary. Paper presented at the Annual Meeting of the Arkansas Archeological Society, Hot Springs, AR.

Early, Ann M.

- 2016 Woodland Period Ceramics as Seen from the Wild Violet Site: Is There Really a Distinctive Fourche Maline Material Signature? Paper presented at the 58th Annual Meeting of the Caddo Conference and 23rd Annual Meeting of the East Texas Archeological Conference, Nacogdoches, TX.
- 2016 The Sargent Collection: A Gift to Arkansas. Paper presented at the 58th Annual Meeting of the Caddo Conference and 23rd Annual Meeting of the East Texas Archeological Conference, Nacogdoches, TX.
- 2016 Rewriting Arkansas's Native History. Paper presented at the 75th Annual Meeting of the Arkansas Historical Association, Little Rock.

Gregory, Katy

- 2015 Engaging the Public through Archeology Lab Programs. Poster presented at the Annual Meeting of the Arkansas Archeological Society, Hot Springs, AR.

Leslie, Katie E.

- 2015 Update and New Results from the 2013–2014 Society Training Programs. Paper presented at the Annual Meeting of the Arkansas Archeological Society, Hot Springs, AR.

Leslie, Katie E., and Jami J. Lockhart

- 2016 Excavation, Geophysical Survey, and Interpretations of the Draper II Site (3HS151). Paper presented at the 58th Annual Meeting of the Caddo Conference and 23rd Annual Meeting of the East Texas Archeological Conference, Nacogdoches, TX.

Lockhart, Jami J., and Timothy S. Mulvihill

- 2015 The Expanding Momentum of Remote Sensing, Excavations, and Interpretations at Richards Bridge (3CT11/22). Paper presented at the Annual Meeting of the Arkansas Archeological Society, Hot Springs, AR.

* ARAS authors are shown in boldface for works coauthored with non-ARAS colleagues

Lockhart, Jami J., Jeffrey M. Mitchem, and Timothy S. Mulvihill

- 2015 Remote Sensing, Excavations, and Interpretations at the Prehistoric/Protohistoric Richards Bridge Site (3CT11/22) in Eastern Arkansas. Paper presented at the 72nd Annual Meeting of the Southeastern Archeological Conference, Nashville, TN.

Mitchem, Jeffrey M.

- 2015 2015 Excavations at the Richards Bridge Site: The AAS Annual Training Program. Paper presented at the Annual Meeting of the Arkansas Archeological Society, Hot Springs, AR.

Mitchem, Jeffrey, Jami J. Lockhart, and Timothy S. Mulvihill

- 2015 A Parkin Phase Village in Northeast Arkansas: The Richards Bridge Site. Paper presented at the 72nd Annual Meeting of the Southeastern Archeological Conference, Nashville, TN.
- 2016 Investigating Mississippian Site Layout and Architecture in Northeast Arkansas. Paper presented at the 81st Annual Meeting of the Society for American Archaeology, Orlando, FL.

Porter, Larry

- 2015 The Dr. Stephen H. Chism House: Restoration of an Antebellum Log House in Logan County, Arkansas. Paper presented at the Annual Meeting of the Arkansas Archeological Society, Hot Springs, AR.

Pyszka, Kimberly, **Jamie C. Brandon**, and Bobby Braly

- 2016 Early Methodism on the Frontier: The Archaeology and Architecture of the Methodist Manse, Cane Hill, Arkansas. Poster presented at the 81st Annual Meeting of the Society for American Archaeology, Orlando, FL.

Pyszka, Kimberly, **Jamie C. Brandon**, and Bobby Braly

- 2015 Preliminary Archeology at the Methodist Manse in Historic Cane Hill, Arkansas. Poster presented at the 72nd Annual Meeting of the Southeastern Archeological Conference, Nashville, TN.

Sabo, Deborah

- 2016 The Well and the Book: Flieger and Tolkien on "the Past in the Past." Paper presented at the 51st International Congress on Medieval Studies, Kalamazoo, MI.

Samuelsen, John R.

- 2016 Caddo Interregional Warfare or Local Burial Practice: Using Strontium Isotopes from Outlying Sites to Assess Origins and Settlement Patterns of a Skull and Mandible Cemetery at the Crenshaw Site. Paper presented at the 81st Annual Meeting of the Society for American Archaeology, Orlando, FL.

Samuelsen, John R., Heidi S. Davis, Ashley E. Shidner, Nicole E. Smith-Guzmán, and Teresa V. Wilson

- 2015 The Bioarchaeology of the Millwood Reservoir in Southwest Arkansas: Comparisons to the Skull and Mandible Cemetery at the Crenshaw Site. Paper presented at the 72nd Annual Meeting of the Southeastern Archeological Conference, Nashville, TN.
- 2016 Archaeological and Bioarchaeological Comparisons between the Millwood Reservoir and the Skull and Mandible Cemetery at the Crenshaw Site. Paper presented at the 58th Annual Meeting of the Caddo Conference and 23rd Annual Meeting of the East Texas Archeological Conference, Nacogdoches, TX.

Scott, Robert J.

- 2015 The Tillar Archeological Project: Results of the 2015 Field Season. Paper presented at the Annual Meeting of the Arkansas Archeological Society, Hot Springs, AR.

Trubitt, Mary Beth

- 2015 Caddo Vessel Documentation at the Survey's HSU Research Station. Paper presented at the Annual Meeting of the Arkansas Archeological Society, Hot Springs, AR.
- 2016 Caddo Indians in the Ouachita Mountains: Update on 3MN298 Ceramic Analyses. Paper presented at the 58th Annual Meeting of the Caddo Conference and 23rd Annual Meeting of the East Texas Archeological Conference, Nacogdoches, TX.

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- p. 2 Meticulous hand excavation to extract carbonized botanical remains from inside a ceramic vessel, 2016 Training Program. Photo by George Sabo.
- p. 20 Entrance to the Plum Bayou Garden at Toltec Mounds State Park. Photo by Elizabeth Horton.
- p. 28 View of the Parkin Mound, Parkin Archeological State Park. Photo by Chuck Haralson, Arkansas State Parks. Photo courtesy of Arkansas Department of State Parks & Tourism.
- p. 30 Jamie Brandon talks to guided tour participants at Indian Rock House, Buffalo National River. Photo by Lydia Rees.
- p. 36 Panorama of Cavanaugh Mound, Fort Smith, while taking a 3D scan of the mound’s east face. Photo by Tim Mulvihill.
- p. 40 Native American Garden at the ARAS-WRI station, prepared and ready to plant. Photo by Emily Beahm.
- p. 45 Reconstructed pottery vessels from the Isgrig site (3PU15) in the lab at the UAPB research station. Photo by Mary Farmer.
- p. 51 2016 spring break excavations at the Taylor House. Photo by Jodi Barnes.
- p. 58 Katie Leslie recording a site location using Trimble GPS unit. Photo by Mary Beth Trubitt.
- p. 64 ARAS staff and Arkansas Archeological Society volunteers at Elkins’ Ferry battlefield. Photo by Carl Drexler.
- p. 69 Julie Morrow holds a cast of a Dalton point from the Sloan site during a media interview. Photo by Sherry Pruitt, courtesy of the *Jonesboro Sun*.
- p. 79 Jessica Howe Cogburn and Sarah Hunt Shepard working in the Survey Registrar’s office. Photo by Jane Kellett.
- p. 83 Michael Evans and Jared Pebworth (ARAS-SRP) performing geophysical survey in the yard at the Willhaf House in Van Buren. Photo by Jamie Brandon.
- p. 91 Geophysical crew at Pea Ridge National Military Park, left to right: Dr. Jami Lockhart, UA doctoral candidate Adam Wiewel, and John Samuelsen. Photo by Carl Drexler.
- p. 102 Tools of the editor’s trade. Photo by Deborah Sabo.
- p. 105 Graphic illustrations prepared for the Gathering, Gardening, and Agriculture workbook. By Jane Kellett.
- p. 106 Participants in the 2016 Training Program at the Richards Bridge site in Crittenden County.