

Arkansas Archeological Survey

Annual Report for 2020–2021



A Division of the University of Arkansas System

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Annual Report for fiscal year 2020–2021



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University of Arkansas System

Arkansas Archeological Survey

Introduction

The Arkansas Archeological Survey (ARAS) is a unit of the University of Arkansas System. Our mission is to study archaeological sites in Arkansas, to preserve and manage archaeological information and collections, 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 statewide archaeological programs in the United States and around the world.

Our coordinating office (CO) is located in Fayetteville. The Director, the State Archaeologist, the ARAS registrar, the fiscal office, publications staff, and outreach programs operate from the CO. Through our websites and publication series we seek to keep educators, colleagues, and the public informed of new findings. Our registrar maintains a central archive of all archaeological site records in the state. The coordinating office building also contains the University of Arkansas Museum Collections Facility. The Survey acts as a repository for archaeological collections originating from state and federally funded projects in Arkansas, our own research, private consulting firms, and donations. Also at the CO our sponsored research program (SRP) and computer services program (CSP) support themselves in part through grants, contracts, and cost-share agreements with local, state, and federal agencies. The CSP offers an archaeogeophysical program with the latest technologies for nondestructive detection of subsurface features at archaeological sites.

Professional archaeologists 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 archaeologists 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 archaeologists, and all Arkansas residents interested in archaeology, prehistory, and the early history of the state.

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

George Sabo III, PhD
Director

Highlights for the Year



Scientific Achievements & Archaeological Mission 2020–2021

- Survey staff authored or coauthored **37 print or digital publications and reports**, and presented **30 papers or posters at meetings and conferences** in 2020–2021.
- The Survey's **AMASDA database (Automated Management of Archaeological 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. The system is now available online (password protected) for qualified researchers. Contractors may subscribe per project or for an annual fee.
 - **281 new archaeological sites** were recorded, bringing the total number of sites in Arkansas site files to **50,443**.
 - **263 new archaeological projects** were entered into the database, bringing the projects total to **7,803**.

Among the new archaeological sites recorded this fiscal year: the Old 67 Rest Area, recorded as archaeological site 3CL934 by Tommie Cotton (ARAS-HSU) in November 2020.

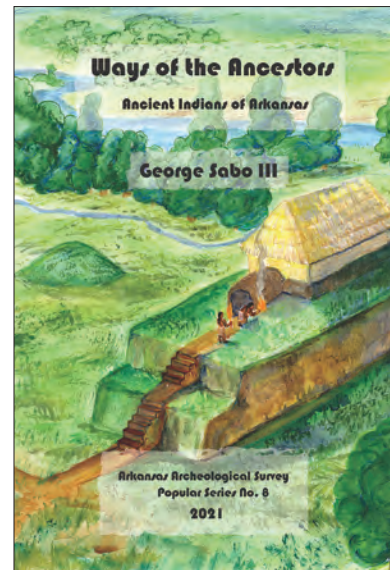
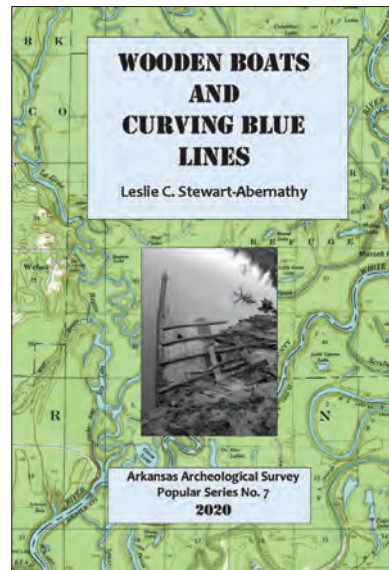


- The Survey registrar facilitated requests for information from the Arkansas site files by students, researchers, and project managers. This included **12 graduate student and academic research projects**. We assisted **local, state, and federal entities**, five **American Indian Tribes**, and **45 private firms** conducting projects in Arkansas.
- We conducted projects supported with **new funds generated by grants and cost-share agreements totaling \$75,116.80**.

- Despite curtailment of in-person opportunities and the annual June Training Program due to Covid-19, **volunteer participation** in our projects totaled **697.5 hours**, showing a high level of interest in archaeology.
- Our **publications program** continues to develop with two new Popular Series volumes (No. 7 and No. 8) and one new Research Series volume (No. 70) published in 2020–2021. We have additional submissions to Research Series and Popular Series under review.
 - Thanks to cooperative effort with the University of Arkansas's CashNet team, our program now has an online eCommerce storefront, linked from our main website, where individual customers can order books. Online sales were shut down for several months during the pandemic.

Wooden Boats and Curving Blue Lines is a brief survey of water transportation in Arkansas with examples of various boatwreck sites and archaeologically studied boat remains.

Ways of the Ancestors re-constructs what life was like for the ancestors of modern American Indians, from the earliest migrations around the end of the Ice Age up to the first encounters with European explorers several millennia later.



- In conjunction with our 50th year in 2017, we embarked on a **major initiative to create a systematic archive of all our accumulated project documentation, including digitization of paper records for long-term preservation**. We also started to inventory and organize our collections at the coordinating office and all ten research stations to ensure that records are complete and storage is according to modern curatorial standards. Kathleen Cande has organized this effort, and the ARAS registrar's office helps with digitization.
 - In 2020–2021, photographic slides from ARAS-HSU were completed, ARAS-UAFS scanned historic aerial photos for 21 counties, and the coordinating office began scanning maps of the Arkansas Post National Memorial property.
- See the Research Station and Coordinating Office sections of this report for information on the **many ongoing archaeological projects** carried out around Arkansas during 2020–2021.
- Emily Beahm (ARAS-WRI) and Carl Drexler (ARAS-SAU) were coauthors of the paper, "Improving Equity, Access, and Professionalism at Archaeological Field Schools Through the Prevention and Reduction of Sexual Harassment and Assault," presented at the 86th Annual Meeting of the Society for American Archaeology Presidential Session on April 15, 2021. The two are co-principal investigators on a **\$300,000 grant from the National Science Foundation** led by Carol Colaninno-Meeks (Southern Illinois University Edwardsville STEM Center) and Shawn Lambert (Mississippi State University). This multiyear research project is aimed at **making archaeological field schools safer and more inclusive for all students**. It will ultimately benefit not only field schools but all archaeological fieldwork contexts, as well as other field-based disciplines, and will improve the overall quality of archaeological research for the future.

Christine Bostian (HSU Museum Studies intern) used text, photographs, and audio/video to describe this engraved bowl with “rattle” handles for the Hodges Collection website.



- **Interpreting the Hodges Collection** was supported by funding from several sources and completed in fall 2020. Mary Beth Trubitt and Tommie Cotton (ARAS-HSU) collaborated with ARAS-CO staff members Tekla McGlothlin and Sarah Shepard, and HSU students and staff, to create an extensive open storage exhibit for many of the 38,000 ceramic vessels and stone tools comprising the Joint Educational Consortium's Hodges Collection. These materials, from Clark and Hot Spring counties, reflect the long developmental history of the Caddo Indians. The display, which includes an interactive website and 3D models of dozens of artifacts, is open for viewing at the Caddo Center on the HSU campus. The project website, developed with Deborah Weddle (ARAS-CSP) and humanities scholars Judith Stewart-Abernathy and Tamara Francis, launched in December.
- **Preserving and Presenting Arkansas History through Artifacts—Historic Old Washington Site Collection, Historic Washington State Park** is a project funded by a grant from the Arkansas Natural and Cultural Resources Council. With the help of UAF students, ARAS-CO staff member Madelyn Rose is compiling a digital inventory of artifacts excavated from Historic Washington State Park in order to reconcile multiple excavations performed between 1981 and 2012. The project includes application of the Survey's new Digital Imaging Lab resources to create 3D models of several diagnostic artifacts, along with development of educational outreach materials for Historic Washington State Park, located near Hope in Hempstead County.

Meeting the Challenges of 2020–2021

- **Workday Transition:** In July 2020, following a two-year period of development, the cloud-based Workday system of integrated human resource and financial management software applications “went live” for the first cohort of University of Arkansas System institutions. Workday is used to manage all business processes for UA System employees.
- **Covid-19:** As one of numerous institutions of higher education in Arkansas, the ARAS administration continued to work closely with the UA System Office, the Arkansas Division of Higher Education, the Arkansas Department of Health, and the University of Arkansas for Medical Sciences to monitor Covid-19 cases within and across the institutions; provide support for affected faculty, staff, and students; assist in contact tracing programs; and support vaccine initiatives. At our coordinating office and research stations, staff adopted work protocols and schedules to ensure maximum protection against the risk of infection.
- **Virtual Public Archaeology and Teaching:** As part of our adoption of safe and physically distanced work practices this year, ARAS staff devoted considerable time to the creation of innovative and successful virtual presentations for a wide range of audiences including the avocational archaeology community, members of the general public interested in all aspects of Arkansas history, and the public education community who frequently turn to us for resources that can be adapted to classroom settings. Our PhD staff who hold teaching positions at campuses across the state adapted their coursework for implementation on the variety of platforms adopted at their host institutions.

Staff News

- Dr. George Sabo III, Director of the Arkansas Archeological Survey since 2013, and Archaeologist at the ARAS-UAF

research station from 1979-2013, retired at the end of June 2021.

- Deborah Sabo (ARAS-CO) retired from her position as Publications Editor at the end of June 2021 after 22 years at the Survey.
- Taylor Greene (ARAS-SAU) was hired at the end of the fiscal year 2020–2021 as the new Research Assistant at ARAS-SAU research station. He took up his post on July 1, 2021.
- Matthew Rooney (ARAS-UAM) was hired at the end of the fiscal year and started as the new Station Archaeologist for the ARAS-UAM research station on July 1, 2021.
- John Samuelson (ARAS-CSP) was promoted to Science and Technology Administrator (Assistant Archaeologist).
- Paige Ford (ARAS-Toltec) was hired at the end of the fiscal year as the new Station Archaeologist for the Toltec Mounds research station. She succeeds Dr. Elizabeth Horton.
- Carl Drexler (ARAS-SAU) was promoted to Research Associate Professor.
- Mel Zabecki (ARAS-CO) was hired as State Archaeologist, replacing Dr. Ann Early, who retired in FY2020. Zabecki had been the Survey's Educational Outreach Coordinator since 2018.
- Michelle Rathgaber (ARAS-CO) started as the Educational Outreach Coordinator in April 2021. Rathgaber was previously the Archaeological Assistant at Parkin Research Station.
- Madelyn Rose (ARAS-CO) was promoted to Collections Technician in May 2021.
- Jodi Barnes (ARAS-UAM) left the Survey to pursue new endeavors in South Carolina. Barnes joined the Survey in 2013 as Station Archaeologist at ARAS-Monticello and contributed research and public archaeology work on African diaspora, Japanese internment camps, and gender and health in historic Arkansas.
- Sarah Shepard (ARAS-CO) was promoted to ARAS NAGPRA Coordinator.

Contributions to Higher Education in Arkansas 2020–2021

- **George Sabo III**, Survey Director since 2013 and **Professor of Anthropology**, served as **Co-Director of the Environmental Dynamics Interdisciplinary PhD Program**, which is part of The Graduate School and International Education at the University of Arkansas.
- Survey archaeologists held **research faculty titles in the Department of Anthropology** at the University of Arkansas in 2020–2021: Jodi Barnes, Emily Beahm, Andrew Beaupré, Carl Drexler, Jessica Kowalski, Jami Lockhart, Jeffrey Mitchem, Juliet Morrow, and Mary Beth Trubitt.
- Survey archaeologists **taught 17 courses for 373 students enrolled at university campuses** in Arkansas: UAF, UAFS, UALR, UAM, UAPB, ASU, HSU, and SAU. This included **four online courses** for University of Arkansas and Arkansas State University – Midsouth, and four students in Independent Studies classes or Internships at UAF, UALR, ASU, and HSU.



In a short Facebook Live video, Mary Beth Trubitt (ARAS-HSU) gave a tour of the Joint Educational Consortium's Hodges Collection at Henderson State University Caddo Center for Arkansas Archaeology Month 2021.

- Courses taught by Survey archeologists fulfill **basic education requirements** and contribute to **several undergraduate majors and graduate degree programs** at Arkansas universities, including Anthropology, History, Geosciences, and Environmental Dynamics at UAF; Heritage Studies at ASU; the Historic Interpretation Program at UAFS; and African Studies at UAPB.
- Survey archaeologists contributed numerous **guest lectures, demonstrations of geophysical technologies, field and lab instruction including mapping, ethnobotanical, and other specialized processing, and tours of facilities** for college and university students in Arkansas.
- Survey archaeologists **supervised five student interns**: Andrew Beaupré and Robert Scott (ARAS-UAPB) worked with UALR student Kevin Latting on an independent reading course centered on Arkansas archaeology; Emily Beahm (ARAS-WRI) supervised Owen Knox, an undergraduate intern from UAF; Juliet Morrow and Sarh Stuckey (ARAS-ASU) supervised ASU student interns Bobby Perry and Dalton Holder; Mary Beth Trubitt and Tommie Cotton (ARAS-HSU) supervised Christine Bostian, a Museum Studies intern at HSU.
- Survey archaeologists filled **5 master's or doctoral degree committee positions (as member or chair) for graduate students** in Anthropology (UAF, UALR) and Environmental Dynamics (UAF), and **1 master's committee for a University of Oklahoma student**.
- Survey archaeologists at all research stations and the coordinating office provided opportunities for **hands-on research experience** in archaeological fieldwork and laboratory analysis for undergraduate and graduate students at host campuses.
- The Survey provides **employment to students, when possible, at several campuses** through grant funding, assistantships, and direct employment.
- **Additional service to Arkansas college and university campuses** included:
 - participation in course and program development for host departments,
 - membership on campus and departmental committees, curatorial functions and exhibit development for campus museums and libraries, and
 - assistance with historic properties and artifact collections owned or managed by the universities: the Joint Educational Consortium's Hodges Collection (HSU); Lakeport Plantation (ASU); Drennen-Scott Historic Site (UAFS); Willhaf House (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); the Gregoire and other collections at Arkansas Tech Museum (ATU).



UAFS Introduction to Archaeology student using an atlatl to propel a spear.

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 Archaeology 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.

- **Noelle King** is a graduate student in archaeology in the Anthropology Department at the University of Arkansas Fayetteville. Her advisor is Dr. Jessica Kowalski (ARAS-UAF and UAF Department of Anthropology). After completing her undergraduate degree in Jonesboro, King has spent the past two years working for the Arkansas Historic Preservation Program at the Jacob Wolf House Historic Site as a cultural and historic interpreter. With her background in regional history, Noelle plans to focus her research on historic Ozark archeology, including vernacular log structures and implementation of GIS techniques.
- **Gillian Steno** is a current Master's student in Anthropology who has lived all over the Midwest but currently calls Detroit, Michigan home. She graduated from the University of Mississippi-Ole Miss with Honors in May 2021 with a Bachelor's Degree in Anthropology and Psychology. Her undergraduate thesis research focused on lithic analysis and domestic versus public space at a Late Mississippian/Early Contact site near Starkville, Mississippi. Her current research interests are in Contact and Historic Period Archaeology in the Southeast, but she doesn't have a specific focus just yet.

Contributions to Public Schools and K-12 Education 2020–2021

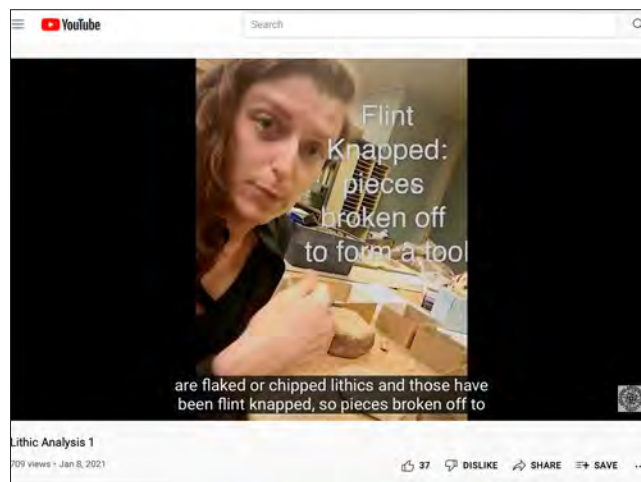
- **Gathering, Gardening & Agriculture – 5th Grade Social Sciences Curriculum.** With funding from the Southeastern Archaeological Conference, the Arkansas Archeological Society, the Arkansas Humanities Council, and the National Endowment for the Humanities, **Jodi Barnes (ARAS-UAM), Emily Beahm (ARAS-WRI), and Elizabeth Horton (ARAS research affiliate)** developed a 5th grade social sciences curriculum that is now **available as free downloads on the ARAS website** at <https://archeology.uark.edu/gga/>. The lesson and instruction package is aligned with the 5th grade Arkansas Department of Education (ADE) Social Studies Curriculum Framework. It presents the history of early Arkansas by comparing foodways of Native Americans, European settlers, and African Americans. Archaeological evidence from Arkansas is used to illustrate and to show how science can explore these topics. Complete lesson plans, exercises, and PowerPoints are on the website, along with background information for teachers. The Survey also offers teacher workshops to help educators implement the curriculum. A hardcopy workbook is available to Arkansas educators on request.
- **Teacher Workshops.** ARAS Educational Outreach Coordinator Mel Zabecki offered teacher workshops at Educational Cooperatives in Beebe, Monticello, and Plumerville with **33 teachers earning professional development credits**. Local station archaeologists were invited via Zoom to talk to teachers about the archaeology of their respective areas and how and where teachers and students can visit archaeological parks and museums.
- **Classroom Materials.** We offer a series of **educational fliers** on many topics available as downloadable PDFs that can be used for teacher preparation or as classroom handouts.
- **School Visits, Programs & Tours.** Survey archaeologists typically give talks and demonstrations on archaeology, American Indians, and early Arkansas history throughout the year. During 2020–2021, ARAS staff adapted to Covid-19 restrictions by shifting to virtual classroom visits, demonstrations, and tours. Mel Zabecki (ARAS-CO) participated in **8 virtual classroom visits, reaching 83 students**, and held **2 Skype-A-Scientist sessions, reaching 32 students**. Tim Mulvihill (ARAS-UAFS) gave two online presentations on Ozark prehistory to Ozark High School US History classes (**39 students**), Michelle Rathgaber (ARAS-CO) gave a talk on “Native American Dwellings” to gifted and talented students at Farmington Elementary School (**16 students**), and Tommie Cotton (ARAS-HSU) exchanged letters with a student in the “**Letters to a Pre-Scientist**” program. When in-person events resumed, Rathgaber (ARAS-CO) hosted an informational booth at Greenland Middle School's Career Day, reaching approximately **150 middle school students and their teachers** and Emily Beahm (ARAS-WRI) gave a presentation to **25 children and their parents** for the Camp Trinity Home School Series- Archaeology Day.
- **Native American Days 2020.** Mel Zabecki (ARAS-CO) worked with the Shiloh Museum of Ozark History to organize the event for fifth-graders and anyone else interested in Native American history. Over **2,110 students and their teachers** from across the state and as far as West Virginia participated. Survey archaeologists, as well as Tribal representatives, State Parks Interpreters, and living historians gave presentations about archaeology and Native American life.
- **Engineering & Archaeology Day Camp.** Zabecki worked with Amy Warren (UA Engineering Department to

develop a pilot 5-day camp in Fayetteville for 7th and 8th grade girls, with hands-on learning that combines archaeology and engineering.

- **Youth Organizations.** Zabecki (ARAS-CO) hosted a local **Girl Scouts** troop (**8 students**) for a day. Andrew Beaupré (ARAS-UAPB) served as the archaeologist of record for a **4-H Project Archaeology** event in Perry County (**15 students**). In June, Beaupré (ARAS-UAPB) taught the **Boy Scouts Archaeology Merit Badge** to **38 students** at the Gus Blass Scout Reservation in Damascus, Arkansas; he continued to administer the badge online through YouTube videos and email with additional scouts in multiple states.

Public Service and Outreach 2020–2021

- **Zooming Forward: Public Education in the Time of Covid.** ARAS did not abandon its public education efforts in the face of Covid. Our staff continued to adopt strategies for virtual presentations and events in 2020–2021. For example, a series of short educational videos presented via Facebook and collected as a playlist called Lab Work on the Survey's YouTube channel was developed by Michelle Rathgaber (ARAS-Parkin). Mel Zabecki (ARAS-CO) participated in the Archaeological Institute of America's Tweet-a-thon for International Archaeology Day by posting about various archaeological topics and sharing photos of artifacts and tools on Twitter. Mary Beth Trubitt (ARAS-HSU) gave a tour of the Caddo Center and the JEC Hodges Collection for Arkansas Archaeology Month via Facebook Live.



- **Survey Staff in the News.** Several Survey archaeologists were featured in local news and media this year. Andrew Beaupré (ARAS-UAPB) was interviewed by Channel 11 about archaeology in the backyards of Little Rock (<https://www.thv11.com/article/news/history/quapaw-quarter-historical-artifacts-on-their-property/91-b93d64ac-23bc-4866-a4a6-cfb2386ebbf>). ARAS-UAF's Jessica Kowalski and Michael Evans, and Mel Zabecki (ARAS-CO) were interviewed on the Arkansas Post Podcast for a piece called "Archaeology in Arkansas." Michael Evans (ARAS-UAF) was also interviewed by Phil Gast for a 2021 update for the "Civil War Picket," a historical blog. Marilyn Knapp and Mel Zabecki (ARAS-CO) were interviewed about Archaeology Month by GoodDayNWA. Knapp was also interviewed by local NPR station, KUAF, about the Arkansas Archeological Society.

Arkansas homeowners find historical artifacts in front yard



- **NAGPRA Documentation.** We continued our **NAGPRA compliance program** in cooperation with several American Indian Tribes. Under the federal Native American Graves Protection and Repatriation Act (NAGPRA), many institutions and agencies are obligated to provide an inventory of all items in their collections that are subject to repatriation. Such items are human remains, funerary objects, sacred artifacts, and items of cultural patrimony. This is

done by researching and providing a summary of all existing records for each artifact collection in order to establish the geographical origin, cultural affiliation, and other basic information about how the items were acquired and accessioned. The remains and objects may then 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.

- As of 2019 ARAS has completed the steps necessary to be substantially in compliance with our NAGPRA obligations for collections that we currently curate. This process took a number of years, and was overseen by the ARAS registrar's office, with Sarah Shepard in charge.
- This year the Summary for Unassociated Funerary Objects from Lake Dumond Site was submitted to the National Park Service NAGPRA Office and Quapaw Nation for repatriation, a collection was transferred back to the Arkansas State Medical Examiner, and the office worked with Mel Zabecki (ARAS State Archaeologist) to document remains and file all SOD paperwork relating to burials.
- Registrar staff also assisted several outside agencies with NAGPRA compliance and information: Arkansas Department of Transportation, Arkansas State Parks, University of Arkansas Department of Anthropology, US Army Corps of Engineers, University of Arkansas Museum, and the US Forest Service.
- **State and Federal Agencies.** The Survey works closely with **state and federal agencies** whose responsibilities under environmental and cultural preservation statutes include the management and protection of archaeological sites:
 - Department of Arkansas Heritage and the Arkansas Historic Preservation Program; Arkansas Department of Transportation; Arkansas Department of Parks and Tourism/Arkansas State Parks; Arkansas Game and Fish Commission; National Park Service; USDA Forest Service; US Natural Resources Conservation Service; US Army Corps of Engineers; and US Fish and Wildlife Service.
- **Training Program & Field School.** Sadly, the annual Training Program (see p. 116) was canceled this year due to the Covid-19 pandemic. If all goes well, the plans made for 2021 will be implemented instead in 2022.
- **Public Programs & Presentations.** Survey staff normally give dozens of public talks and set up information booths at community events that reach several thousand listeners and visitors each year. In 2020–2021, the Covid-19 pandemic threatened this outreach mission. Nevertheless, our staff gave at least **44 public lectures, workshops, tours, information booths, and other presentations** reaching audiences of over **2,812** Arkansans and people in neighboring states. An additional **10 public talks to chapters of the Arkansas Archeological Society** reached combined audiences of about **210**. Most of these were free virtual events via Zoom.
- **Historic Cemeteries.** Kathleen Cande (ARAS-CO) coordinates Survey research, assistance, and advice with groups and individuals working on projects to document and protect **historic cemeteries, especially African-American cemeteries**. ARAS staff assisted several volunteer groups with cleaning and documenting cemeteries, or helped investigate locations of unmarked but suspected gravesites, including at East Mountain Cemetery.

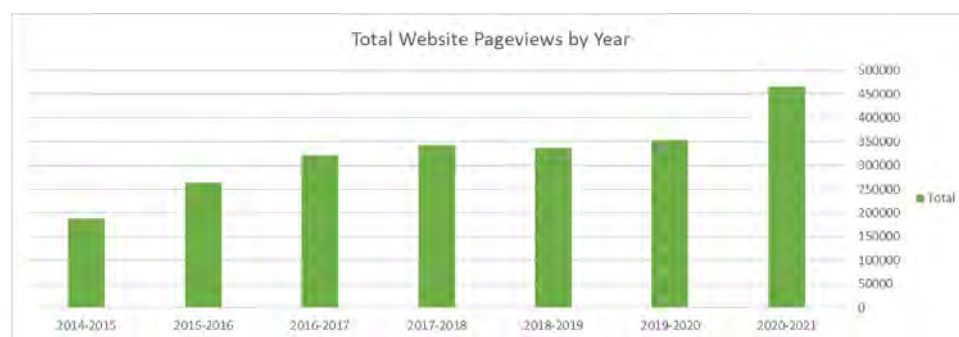


James Hopkins (Arkansas Archeological Society Central Mississippi Valley Chapter President) and his grandson, Miles, at Archaeology Day at the Independence Regional Museum, Batesville.

- **Encyclopedia of Arkansas.** Survey staff have so far contributed about **60 articles** and reviewed many others for

the CALS online *Encyclopedia of Arkansas*.

- **Public Contacts.** Survey staff members respond to thousands of **requests for information** from members of the public every year, by telephone, email, social media, and in person.
- **Exhibits & Museums.** Survey staff have created or assisted with a number of **exhibits** around the state:
 - Mary Beth Trubitt and Tommie Cotton (ARAS-HSU) curate the JEC's Hodges Collection of Native American Artifacts at the HSU Caddo Center. When the Caddo Center reopened to the public in October, ARAS-HSU staff and student intern Christine Bostian gave tours to a total of **140 visitors**. The new Hodges Collection website, designed with the help of Deborah Weddle (ARAS-CSP), launched in December and features short videos and 3D models developed by Trubitt and Bostian. Grants from Arkansas Archeological Society and the Arkansas Humanities Council helped fund the project.
 - ARAS-HSU station staff maintain displays using Hodges collection artifacts at the HSU Huie Library, the OBU Hickingbotham Library, and the Clark County Historical Association Museum in Arkadelphia.
 - George Sabo was curator for a permanent exhibit on "Arkansas Native Americans" installed at the Arkansas Union on the UAF campus.
 - Katy Gregory (ARAS-Toltec) worked with park interpreters at Toltec Mounds Archeological State Park to create a new temporary exhibit highlighting the steps of processing artifacts once they arrive in the lab. The exhibit encourages visitors to find examples of the different archaeological processes in the museum's permanent exhibit. Gregory and the park's interpreters also collaborated on a new display by the Plum Bayou Garden that emphasizes the importance of pollinators.
 - Michelle Rathgaber (ARAS-Parkin) and Rachel Lewis (Parkin Archeological State Park interpreter) organized a photographic exhibit about the Sawdust Hill Community for the Parkin Archeological State Park for Black History Month in February.
 - Other assistance for exhibit development, collections, or programs at museums was provided to Smithsonian Museum of Natural History; Parkin and Toltec Mounds State Parks Visitors Centers; Historic Cane Hill Museum, The Gilcrease Museum; Old Independence Regional Museum, Shiloh Museum of Ozark History; University of Arkansas Museum Collections; and National Cowboy and Western Heritage Museum in Oklahoma City.



- **Website and Social Media.** Our website, designed and maintained by our own Computer Services Program staff (Deborah Weddle and John Samuelson), offers a modern, graphic home page that is easy to navigate, with rotating content that emphasizes interesting information about archaeological research and discoveries in Arkansas, and educational materials for public and schoolroom use. We also maintain **topical websites for the general public and fellow scholars**.
 - Visitor traffic to the main ARAS website increased by about 65% in FY21, with **208,883 pageviews** by 30,071 users over 43,577 sessions. For all our websites combined, traffic reached **460,000 pageviews**.
 - The new website for the Joint Educational Consortium's Hodges Collection went live in December 2020. It was developed by Mary Beth Trubitt (ARAS-HSU) with technical assistance from Deborah Weddle (ARAS-CSP).

- Emily Beahm (ARAS-WRI) is working on an updated redesign of our Rock Art in Arkansas website, also with Weddle’s help. The new websites should be ready to launch next year.
- A popular continuing feature on the website is our **Artifact of the Month** series, now in its fourth year. These brief illustrated stories tell visitors about Arkansas’s prehistoric and historic heritage, and how we learn about the past, one artifact at a time. <https://archeology.uark.edu/artifacts/>
- **AMASDA Online** provides password-protected, web-based access to our archaeological site database for qualified researchers. Contractors pay a fee per project or by annual subscription. The new online eCommerce site enables a more streamlined process for contractors to access their accounts. More information is in this Annual Report in the registrar’s office section and the computer services section. AMASDA Online had **104,630 pageviews** in 2020–21. There were 91 paid-per-project and 8 annual subscriptions.
- The Survey continues to increase the use of **social media** to provide information about Arkansas archaeology, our projects and discoveries, and local volunteer opportunities. Our Educational Outreach Coordinator manages the social media administrative functions for the main accounts. Each research station also has its own Facebook page. This year, during Covid-19, we used social media to provide informative short videos as virtual “lab sessions” and talks.
- **Survey staff work with local landowners** who are concerned about site looting and trespassing on their property. We respond to requests from landowners to investigate and to recover information from sites that have been damaged by unauthorized digging.
- Survey staff served on a number of **Boards and Commissions** in Arkansas and beyond:
 - Emily Beahm (ARAS-WRI) and Andrew Beaupré (ARAS-UAPB): State Review Board for the **National Register of Historic Places**.
 - Kathleen Cande (ARAS-SRP): Board of Directors, Recording Secretary, **Washington County Historical Society**; Board of Trustees, **Arkansas Historical Association**.
 - Carl Drexler (ARAS-SAU): Board of Trustees, **Arkansas Historical Association**.
 - Jami Lockhart (ARAS-CSP): **Northwest Arkansas Open Space Plan Steering Committee**, planning committee for the **Fayetteville Riverine Commons at the Watershed Conservation Resource Center**.
 - Jeffrey Mitchem (ARAS-Parkin): Advisory Board, **Alliance for Weedon Island Archaeological Research and Education**, St. Petersburg, Florida; Director-at-Large, **Florida Public Archaeology Network**.
 - Michelle Rathgaber (ARAS-CO): Board member, **Cross County Historical Society**.
 - Deborah Sabo (Editor), Marilyn Knapp (ex officio), and Melissa Zabecki (ex officio) (ARAS-CO): Executive Board of the **Arkansas Archeological Society**.
 - Deborah Weddle (ARAS-CSP): Board of Directors, **Fan Association of North America**.
 - Melissa Zabecki (ARAS-CO): Board member, REACH committee, and Programs committee of the **Arkansas Humanities Council**; State Coordinator for Arkansas, Project Dig.

Professional Service 2020–2021

- **Jeffrey Mitchem (ARAS-Parkin) sits on the Board of Directors of The Archaeological Conservancy.** Mitchem has served the organization for many years as a tour leader and lecturer, and (along with other ARAS archeologists) has partnered to assist the Conservancy’s mission of investigating sites that may be protected through acquisition, and helping to negotiate this process. The Parkin site, now preserved within Parkin Archeological State Park, was acquired by the Conservancy and donated to the State of Arkansas for this purpose. Over 500 important archeological sites have so far been saved by the Conservancy.
- Survey staff provided **expert advice or other assistance** to over **150** agencies, firms, museums, schools, parks, civic groups, and other bodies, in addition to service rendered to research station host institutions.

- Several Survey archaeologists serve as editors or members of editorial boards for professional organizations and journals.
 - Jodi Barnes serves as associate editor of the journal *Historical Archaeology*.
 - Emily Beahm serves as a member of the editorial board of the journal *Southeastern Archaeology* and as newsletter editor for the *Southeastern Archaeological Conference*.
 - Andrew Beaupré is Vermont news editor for the *Council of Northeast Historical Archaeology Newsletter*.
 - Kathleen Cande serves as Gulf States current research editor for the *Society for Historical Archaeology Newsletter*.
 - Jeffrey Mitchem is on the editorial board for the journal *The Florida Anthropologist*.
 - Deborah Sabo is the editor of *Field Notes*, the newsletter of the Arkansas Archeological Society.
 - George Sabo serves on the editorial board of the *Caddo Archeology Journal*.
 - Mary Beth Trubitt serves as editor of the journal *Southeastern Archaeology* and *Caddo Archeology Journal*.
- Multiple Survey staff members served as officers, members of various committees, or in other service capacities for these **professional organizations**. Details can be found throughout this Annual Report.
 - National Endowment for the Humanities
 - Society for American Archaeology
 - Society for Historical Archaeology
 - Caddo Conference Organization
 - Southeastern Archaeological Conference
 - Society for Black Archaeologists
 - The Archaeological Conservancy
 - Florida Anthropological Society
 - Arkansas Historical Association
 - Society of Bead Researchers
 - Florida Archaeological Council
 - Friends of the Arkansas State Archives
 - National Association of State Archaeologists
 - National Association for Interpretation
 - Washington County Historical Society
- 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 archaeologists.

Grants & Cost-Share Agreements 2020–2021

- Extensions of existing ARAS projects with outside funding agreements totaled \$179,707. These include support from Arkansas Humanities Council, Arkansas Natural and Cultural Resources Commission, Arkansas State Parks, National Science Foundation, the UA Anthropology Department, and US Forest Service.
- Funding for new ARAS Projects during FY2021 totaled \$75,117. These include support from Arkansas Natural and Cultural Resources Commission, National Endowment for the Arts, National Science Foundation, and the UA Teaching and Faculty Support Center.
- Jessica Kowalski (ARAS-UAF) received a \$2400 Teaching Improvement Grant from the University of Arkansas for the Archaeological Field Session.
- Tommie Cotton (ARAS-HSU) and Mary Beth Trubitt (ARAS-HSU) received a \$602 grant from the Arkansas Archeological Society’s Archeological Research Fund for “Dating Amos (3MN62), 1976 and 2020” to obtain an AMS date on a corn kernel from a hearth feature at the site.

- Mary Beth Trubitt (ARAS-HSU) was awarded a \$900 grant from the ARAS Hester A. Davis Fund for the “Hodges Collection Interpretation Internship” to continue work on the Hodges Collection interpretation at the HSU Caddo Center.
- Carl Drexler (ARAS-SAU) received a \$2750 grant from the Arkansas Archeological Society’s Archeological Research Fund for radiocarbon dates from the Holman Springs and Lockesburg Mound sites.
- Carl Drexler (ARAS-SAU), and Emily Beahm (ARAS-WRI) are co-Principal Investigators, with Carol Colaninno-Meeks (SIUE) and Shawn Lambert (Mississippi State), on a \$300,000 grant from the National Science Foundation for “Evidence-based Transformation of Undergraduate Field Schools to Promote Safety and Inclusivity among Southeastern Archaeology.”
- Andrew Beaupré (ARAS-UPB) received a \$1623 grant from the ARAS Hester A. Davis Fund for “Faunal Analysis of Feature 12 - Wallace Bottom Site 3AR179” to support his research project on foodways at the early Arkansas Post.
- Emily Beahm (ARAS-WRI) was awarded a \$1800 grant from the Arkansas Archeological Society’s Archeological Research Fund for “Heber Springs Mound (3CE68) Legacy Collection: Analysis of a Shell Midden Mound in Cleburne County” to support paleoethnobotanical analysis and 2 AMS dates.
- Michelle Rathgaber (ARAS-CO) received a \$1000 grant from the Arkansas Archeological Society’s Bill Jordan Public Education Fund for support honorariums for speakers in a series of talks by Tribal representatives planned for Native American Heritage Month in November.
- Mel Zabecki (ARAS-CO) was awarded a \$1780 grant from the ARAS Hester A. Davis Fund for faunal specimen preparation.
- Jami Lockhart (ARAS-CSP) was awarded \$1394 from Arkansas Department of Transportation to conduct geophysical survey of 3BE1080.
- John Samuelsen (ARAS-CSP) and Elizabeth Horton (ARAS research affiliate) received a \$2000 grant from the ARAS Hester A. Davis Fund to support “Advancing Geochemical Analysis of Ancient Plants and Teeth.”
- John Samuelsen (ARAS-CSP) was awarded a \$2000 Hester A. Davis grant for “Soil Contamination and Ancient Tooth Enamel at the Crenshaw Site.
- George Sabo III (ARAS Director) is a co-Principal Investigator (with Claire Terhune, Wenchao Zhou, Paul M. Gignac, and Haley D. O’Brien) on a \$687,161 multiyear grant from National Science Foundation, “MRI: Acquisition of micro-computed tomography system for advanced imaging and inter-disciplinary multi-user access for the University of Arkansas and the US Interior Highlands.
- George Sabo III (ARAS Director) is a co-Principal Investigator (with Kathryn Sloan, Michael Pierce, Kim Sexton, Robert Cochran, David Fredrick, Sean Teuton, Eric Funkhouser, and Joshua Youngblood) on an \$88,735 University of Arkansas Chancellor’s Discovery, Creativity, Innovation, and Collaboration Fund Grant for “Arkansas Stories of Place and Belonging.”
- ARAS-CSP was awarded \$31,452 from Arkansas State Parks for reconnaissance, recovery, and interpretation of Civil War artifacts from Praire Grove Battelfield State Park.
- ARAS-SRP received a \$57,664 grant from the Arkansas Natural and Cultural Resources Commission for “Preserving and Presenting Arkansas History through Artifacts: Historic Old Washington Site Colleciton, Historic Washington State Park.”

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 identify, assess, and rescue archaeological information without impeding normal land use.**
- We also work with government agencies, including the Arkansas Historic Preservation Program, advocacy groups such as Preserve Arkansas and the Northwest Arkansas Open Space Plan, and descendant communities to promote efforts to protect valuable natural and cultural properties.
- Rock shelters in the Ozarks are often exploited for illicit purposes, including methamphetamine production, and sites on private, state, and federal property across Arkansas are subject to persistent vandalism. **The Survey works with various law enforcement agencies and Tribal Historic Preservation Officers to assist investigations and prosecutions.**
- **The Archaeological Conservancy** purchased 8 archaeological 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. **Jeff Mitchem (ARAS-Parkin) is a member of the Conservancy's Board of Directors.**
- **Funding for Backlog of Reports.** For more than half a century we have responded to many emergency situations requiring the salvage of information from archaeological sites as they were being destroyed, transferring collections from other institutions that no longer wished to curate materials from Arkansas, and inventorying donations from private individuals. Funding to support such activities is seldom available, yet timely handling of these tasks is an important ethical responsibility. We earmark a portion of our annual budget in anticipation of these needs. Staff at our coordinating office and all ten research stations devote significant time each year to archival and collections maintenance tasks including digitizing paper records, producing comprehensive inventories of legacy collections, and undertaking research projects that bring new perspectives and emerging technologies to the study of materials that have long been in our possession. **For many years, significant support for these efforts has been provided by grants awarded to the Survey by the Arkansas Natural and Cultural Resources Council. During FY2018–2019, ANCRC funds supported a coordinating office lab project that served to implement a new tablet-based, digital collection inventory system that will greatly increase the efficiency of our collection management operations across the entire organization. Funding from other sources, including the Roy and Christine Sturgis Charitable and Educational Trust, helped underwrite the development of our Digital Imaging Lab to support our inventory efforts.**
- **Public Education and Heritage Tourism Opportunities.** Even after more than half a century of efforts by our staff, many Arkansans still do not know that Arkansas possesses archaeological sites recognized for their importance by scholars throughout the United States and around the world. **We continue to refine the stories we tell about the long history of our state and region through the “voice” of archaeology.**
 - During the past year our **Educational Outreach Coordinators** (see pp. 84–87) developed new public programming and reached out to hundreds of people in multiple settings to deliver our message about the educational uses of archaeology and the inherent importance of learning about and preserving information on Arkansas's past. Drs. Mel Zabecki and Michelle Rathgaber engaged **audiences numbering over 2,391** in public education settings.
 - Our **5th grade social sciences curriculum** “Gathering, Gardening, and Agriculture” is available for free to Arkansas educators (and to the public) on our website.
 - New **Popular Series** volumes for general readers on **Arkansas prehistory and historic boat wrecks are now available and more books in this series are in development.**
 - Our *Indians of Arkansas*, *Bluff Shelters of the Arkansas Ozarks*, *Arkansas Novaculite*, and *Rock Art in Arkansas* websites continue to serve the public education community as primary sources of information and materials for learning and teaching about archaeology and anthropology in Arkansas and the South. **We added new material to several of these sites, and continue to work on expanding their educational content.**
 - Arkansas has only a few archaeology-themed parks where the public can visit interpreted archeological sites. **We are working with State Parks, the US Forest Service, and the National Park Service to develop ar-**

cheological heritage tourism.

- Archaeologists from the Survey's coordinating office and UAF and SAU research stations completed a four-year program of **investigations at Pea Ridge National Military Park, organized in concert with the National Park Service** under the federal Cooperative Ecosystem Studies Units (CESU) program, designed to contribute extensive new information benefitting the park's many historical, educational, and visitor programs and amenities.
- The June 2021 **annual Training Program, sponsored jointly by the Survey and the Arkansas Archeological Society, was planned to return to** Lockesburg Mound site, again with **headquarters on the De Queen campus of the Cossatot Community College of the University of Arkansas**. The Training Program sadly was canceled this year due to Covid-19. Our presence in Arkansas communities each summer generates significant local interest and new opportunities for our educational outreach programs.
- We continue to provide archaeological support for ongoing development at several state parks including **Davidsonville, Devil's Den, Hampson, Historic Washington, Hobbs State Park and Conservation Area, Petit Jean, Poison Springs, and Prairie Grove Battlefield**. These are in addition to the regular programs of research at **Toltec Mounds and Parkin State Parks**.
- Our **educational/experimental gardens** exploring plant use in prehistoric and pioneer Arkansas (at Parkin and Toltec state parks and at the UA System's Winthrop Rockefeller Institute campus) continue to attract large numbers of visitors and also now are part of a network of such gardens supporting research by a national team of scholars investigating the genetics of early plant domestication across the eastern US.
- **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 harder to recruit new station archeologists and to keep good station assistants.

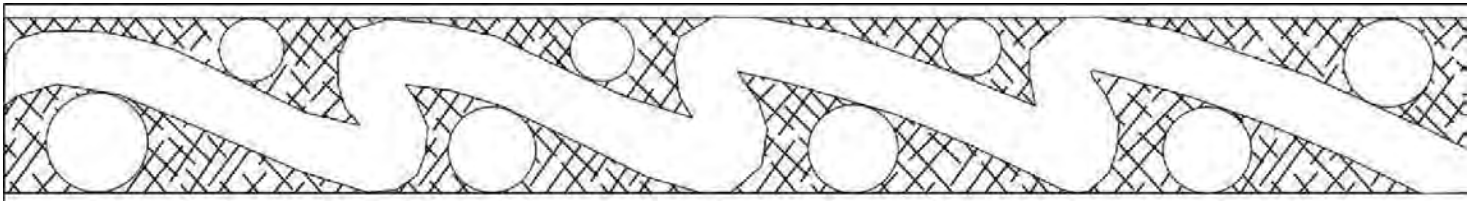
Covid-19 Pandemic Compliance

The Arkansas Archeological Survey has complied with all CDC recommendations and with the requirements of the State of Arkansas and the University of Arkansas System in order to protect our staff and the public from Covid-19. To illustrate: our building has been locked and closed to the public (some visitors such as research firms can make an appointment if our online services do not meet their needs); masks and social distancing are strictly enforced at our facilities; events have been cancelled or postponed; remote "work-from-home" procedures established, and all meetings conducted either remotely or following protocols to minimize risk of infection and transmission. It has been possible, with precautions, to carry out a few outdoor activities, including some fieldwork and site visits with small numbers of participants. Our archaeologists who teach university courses adopted hybrid learning strategies, teaching via in-person classes and digital platforms adopted at their host institutions. As the pandemic developed, we initiated a system to provide "virtual" public talks and educational videos on our website, social media accounts, and YouTube channel.

Throughout this report, we mention talks given by our staff and other events. Whenever these were conducted as in-person events, it was after local Covid-19 restrictions eased following increasing vaccination rates and declining Covid-19 transmission rates in the community.



Research Station Reports





The ARAS-UAF research station is located at the Survey coordinating office in Fayetteville, with additional office space in the Anthropology Department on the UAF campus. The station archaeologist 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. The archaeology 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 Collections Facility awaiting modern analysis. Station research in the last 40 years has broadened the archaeological understanding of the region 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.

Jessica Kowalski (PhD, University of Alabama, 2019) is the Survey's Station Archaeologist for the UAF research station and a Research Assistant Professor at the University of Arkansas-Fayetteville. Prior to joining the Survey, Kowalski directed archaeological projects in the Lower Mississippi Valley and along the Gulf Coast in both research and legal compliance settings. Her interests include the archaeology of the Mississippi period, ancient sociopolitical complexity, cultural landscapes, the production and use of Native American ceramics, and archaeological applications of Geographic Information Systems (GIS). Her dissertation research focused on Mississippi period political organization in the Yazoo Basin of the Lower Mississippi River floodplain.

Michael Evans (Research Associate) officially joined the UAF research station in January 2018. He has been with the Survey since 1991, working with the Sponsored Research Program on projects throughout Arkansas and in neighboring states. He has developed specialized skills including advanced mapping technologies, GIS, AutoCAD and Surfer map production, data editing and management, geophysical fieldwork and data interpretation, archaeological fieldwork planning and supervision, project background research, and report production. Evans is interested in flintknapping, traditional methods of construction and architecture, blacksmithing, and ancient technology and replication. He continues to lend his skills to other collaborative projects around Arkansas.

Jared Pebworth (Research Associate) joined the UAF research station in January 2018. He is a member of the Choctaw Nation of Oklahoma and has been with the Survey since 1991, working with the Sponsored Research Program on projects across Arkansas and in several neighboring states. Pebworth is well versed in field and laboratory logistics, geophysical fieldwork, site mapping, historic and prehistoric material culture, metal artifact conservation, and the reproduction of traditional technologies. Pebworth is interested in historic archaeology and traditional Ozark architecture as well as lithic raw material studies and replication. He is also an excellent artifact photographer. He continues to lend his skills to other collaborative projects around Arkansas.

ARAS-UAF Research Stations Activities

Summer 2021 University of Arkansas Field School at Watts Farm

Starting on June 28, 2021, staff of the ARAS-UAF research station directed a five-week archaeological field school at Watts Farm (3WA0006), a non-mound site located in the White River floodplain outside of Durham, Arkansas. A total of 13 students, including 12 undergraduates and 1 graduate student, participated in the field school. Jessica Kowalski prepared the research design and burial plan in consultation with the Osage Nation during the Spring of 2021. Kowalski served as the field director. Jared Pebworth and Michael Evans were field assistants. Jami Lockhart (ARAS-CSP) conducted the geophysical survey. The field work was supported by a Teaching Improvement Grant from the University of Arkansas.

First recorded in the 1930s by Samuel Dellinger, the site produced architectural remains, stone tools, and partially complete ceramic vessels that may be associated with the Woodland-to-Mississippi period transition in the Ozarks, a time period that is poorly understood in Northwest Arkansas. Located three miles south of the Collins Mounds (3WA0001), Watts Farm is an excellent candidate for a satellite community that may have supported mound construction activities at Collins. Specific research questions outlined for the Watts Farm field school include: (1) Is Watts Farm a residential site or a special-purpose extraction site, and what is the density of occupation? (2) What are the dates of occupation and is Watts Farm occupied at the same time as the nearby Collins Mound site? In other words, are Watts Farm and the Collins Mounds part of the same cultural landscape? (3) What is the style of architecture at Watts Farm and how does that style of architecture compare with architecture found at other Ozark mound centers, including Goforth-Saindon and Huntsville? How do the structures found at Watts Farm exemplify or deviate from broader styles of Woodland and Mississippi period architecture in Arkansas? (4) What are the range of activities associated with the Watts Farm site, and more specifically, is there evidence that residents of the site were engaged in intensive maize agriculture, horticulture, or engaged in nut and other wild food gathering? How do subsistence practices change during the Woodland-to-Mississippi period transition in the Ozarks?

A total of 49 shovel test pits were excavated to delineate boundaries of the site, two 20-x-20 m grids were surveyed using multi-sensor geophysical techniques, and approximately 28 square meters (m²) of horizontal excavation were used to explore the nature of anomalies found in the geophysical data. A burned rock midden, approximately 8-x-8 m in size, was exposed and associated with diagnostic lithic material in the central portion of the site. A rich, dark earthen midden deposit was also encountered on the southern end of the site that produced ceramics, lithics, burned bone, and nutshells. Diagnostic artifacts indicate these deposits are generally Woodland in association. Preliminary impressions of the deposits suggest that Watts



University of Arkansas students excavating at the summer field school at Watts Farm.

Farm may have served a specific function, such as the location for nut-processing, continuing a long tradition of seasonal mobility in the Ozarks, rather than representing a shift to settled Mississippian agrarian lifeways.

As part of this field school project, ARAS-UAF station staff utilized digital recording techniques designed by John Samuelson (ARAS-CSP) and Carl Drexler (ARAS-SAU). Three iPads were used in conjunction with Wi-Fi hotspots. ARAS-UAF staff were able to simultaneously upload field data in real-time to the Arkansas Archeological Survey server, streamlining the recording process. New Trimble R2 units, used in conjunction with the iPads and a high-quality Global Positioning System (GPS), allowed us to capture field data and correct points on the ground to within 2 cm accuracy.

Photo on facing page: University of Arkansas students and Arkansas Archeological Society volunteers excavating at the summer field school at Watts Farm.

Northwest Arkansas Mound Project

One of the long term research efforts of the UAF Research station is to build a geodatabase of sites that have Mississippian components along the Illinois and White rivers in Arkansas. This will help us document settlement patterns and understand how Mississippian occupation in the Ozarks may have changed through time. As part of this project and in keeping with the current ARAS mission of inventorying and publishing legacy collections, staff of the ARAS-UAF research station continued work on analyzing artifacts from the early 2000s excavations at site 3BE536.

Site 3BE536 is a small Mississippian farmstead located in the Illinois River floodplain near the Goforth-Saindon Mound center. With help from a student volunteer, Liley Bozard, and the 2021 field school students, the inventory of 102 boxes of 3BE536 is approximately 75% complete. Site 3BE536 is a non-mound site with a Mississippian component that produced evidence of a burned single-set post structure. Analysis of material from 3BE536 will be compared with the material from Watts Farm to gain a broader view of non-mound settlement and site function over time in Northwest Arkansas. Preliminary findings indicate that 3BE536 was a lithic extraction site, exemplifying all stages of stone tool manufacture, while Watts Farm might be the location of nut-processing activities.

Bluff Shelters in the Arkansas Ozarks

This year, the ARAS-UAF station staff continued our ongoing research into Ozark bluff shelters, collaborating with Matt Sanger, an archaeologist at the Smithsonian Institution, and Elizabeth Horton, a Survey research affiliate, to identify artifacts in the Smithsonian's collections from Mark R. Harrington's 1920s excavations in the Ozarks. The material is exemplary of bluff shelter artifacts, containing perishable material including basketry, clothing, arrow shafts, worked cane, shells, seeds, and seed bags, among other types of artifacts.



Jared Pebworth tracing rock art in a newly recorded bluff shelter in the Ozarks.

ARAS-UAF station staff recorded new rock art at the Gattis Shelter (3NW1492) in the Buffalo River Valley just south of the Steel Creek Landing. Debitage and a Jakie point were found on the surface near the opening of the shelter; the art consisted of a red-painted abstract image most similar to nested U's. The image is approximately 42 cm x 16 m in length and width.

Jared Pebworth, Jessica Kowalski, and Army Corps of Engineers archaeologist Matt Franklin visited the Breckenridge shelter (3CR0002) with Mark Howell, an ethnomusicologist. Dr. Howell recorded ambient sound in the bluff shelter while UAF staff assessed the site for new looting damage. Additionally, Michael Evans recorded bluff shelter and rock art in Low Gap, Newton County, Arkansas and Jared Pebworth recorded bluff shelter and rock art sites for Buffalo River and Horseshoe Canyon.

Leon Allen Collection

We continue to inventory the Leon Allen Collection. This collection was donated in 2020 by Leon Allen, an Arkansas Archeological Society member, and includes artifacts from promi-

nent bluff shelters on Beaver Lake. ARAS-UAF staff, with the help of ARAS administrative specialist, Laura Kowalski, are inventorying the collection which contains perishable materials unique to dry bluff shelters and diagnostic stone tools stretching back to the Early Archaic Dalton period.

Geophysical Survey at 3BE1080

In December of 2020, it came to the attention of the ARAS-UAF station that a newly recorded site, 3BE1080, produced a dense concentration of lithic material in relatively good context, including a Scallorn point that could indicate Mississippi period occupation. The site is in the Illinois River floodplain just west of the Goforth-Saindon mound center. There is a paucity of non-mound, Mississippi period sites recorded in the Illinois River Valley and in the Ozarks in

general, making this site potentially important for understanding Mississippian settlement patterns in the region. The site was initially recommended ineligible to the National Register of Historic Places (NRHP) by the Arkansas Department of Transportation (ArDOT) and would likely be destroyed by the realignment of State Highway 59. We consulted with the Arkansas Department of Transportation (ArDOT) and recommended additional fieldwork at the site. Working with Jami Lockhart (ARAS-CSP), we conducted a magnetometer survey of approximately 11,700 m² and produced a technical report of investigations for ArDOT. No clear anomalies relating to burned structures were apparent in the geophysical data, but we recommended further testing. The chronology of occupation, the ability to differentiate components at individual sites, understanding individual site use or function, and understanding how sites articulate in a larger cultural landscape are major research issues for this area of the Ozarks, and 3BE1080 could offer information that could help address these research questions.

Ancient Settlement Patterns in the Yazoo Basin

Jessica Kowalski is collaborating with Jill Marshall, a professor of anthropology at the University of South Alabama on a research project examining ancient settlement patterns in the Yazoo Basin of the Lower Mississippi Valley. This research is aimed at understanding variability in both Mississippianization and how Mississippian culture manifested differently across the southeastern United States.

ARAS-UAF Awards, Service & Outreach

Grants, Honors & Awards

- A \$2400 Teaching Improvement Grant from the University of Arkansas for the Archaeological Field Session, 2021-2022 funding period. PI Jessica Kowalski.
- 2021 Outstanding Mentor Award from the University of Arkansas to Jessica Kowalski.

Teaching & Higher Ed

- Kowalski taught ANTH 4443/5443, Cultural Resource Management (22 students) during Spring 2021.
- Kowalski taught ANTH 4256/5256 Archaeological Field Session (14 students) during Summer 2021.
- Kowalski supervised two Environmental Dynamics doctoral students on independent research projects: outgoing Hester A. Davis intern, Seth Price, and incoming Hester A. Davis intern, Samuel Martin.
- Kowalski served on the UAF Anthropology Department's Diversity & Inclusion Committee.
- Kowalski recruited two incoming master's students for the UAF Department of Anthropology.

Service to Host Institution

- Evans and Pebworth assisted with UAF Field School, June 28–July 30, 2021, 3WA0006 Watts Farm, Washington County, AR.
- Evans and Pebworth conducted flintknapping and other ancient technology demonstrations for the UAF Department of Anthropology and visitors to the ARAS coordinating office.
- Evans replicated stone drills for the UAM research station.
- Pebworth and Evans created a lithic teaching collection for the UAF Department of Anthropology.
- Pebworth has been working with the ARAS registrar's office, painting and adding finishes to 3D-printed replicas of artifacts for use in teaching and public outreach.
- Kowalski arranged a photogrammetry workshop on June 17, 2021 for ARAS staff on the use of new software, Agisoft. Seth Price, our 2020–2021 Hester Davis intern, led the workshop.

Records & Collections

- The ARAS-UAF station is currently inventorying and analyzing a legacy collection from excavations at 3BE536 (Acc #2000-334 and #2001-335), as part of the Northwest Arkansas Mound Project. This collection consists of 102 boxes. Approximately 75% of the collection has been inventoried.
- The ARAS-UAF station is continuing to inventory the Leon Allen collection (Acc# 2020-408). Laura Kowalski is helping UAF inventory this collection. Jared Pebworth is working on analyzing the collection.
- The ARAS-UAF station received a donation of Albertson Bluff Shelter (3BE174) material from Don Dickson (Acc# 2021-206).

- Mike Evans and Jared Pebworth worked on records from the Watts Farm, 3BE536, and Albertson Shelter projects.

Professional Service

- **Professional Organizations.** Kowalski serves as the Arkansas State Representative for the Society for American Archaeology's Government Affairs Network (GANSR). Kowalski is on the planning committee for the 2022 Southeastern Archeological Conference annual meeting to be hosted by ARAS in Little Rock.
- **ARAS Committees.** Kowalski and Evans serve on the Hester Davis Memorial Fund Committee. Kowalski serves on the Publications Committee.

Public Service & Outreach

- **Programs & Presentations.** Kowalski gave an online presentation, "The Archaeology of Northwest Arkansas and Artifact Identification" to the Mountain Chapter of Arkansas Master Naturalists on February 6, 2021 (audience 30). Kowalski gave an online presentation, "Trowel-Blazing the Archaeological Record in Arkansas," to Texas A & M Texarkana as part of Women's History Month (20).
- **Exhibits.** Pebworth consulted with the Shiloh Museum on artifact identifications and displays; conducted artifact identification for the Smithsonian Institution's bluff shelter collections from Arkansas; and provided assistance on artifact collections and repairs to the University of Arkansas Museum Collections.
- **K-12 Education.** Kowalski presented a talk entitled, "Ancient Settlement Patterns: Methods and Case Studies in Arkansas" to 5th graders, virtually, and nationally as part of Native American Day sponsored by the Shiloh Museum. Audience estimate from Shiloh Museum is 2,110 students from 3 states (Arkansas, Virginia, and Alaska). Evans gave an online flint knapping demonstration with Mel Zabecki (ARAS Educational Outreach Coordinator), watched by middle school students from several states.
- **Cemeteries.** Pebworth visited and recorded a possible cemetery site in Berryville. Evans made digital scans of Robbins Cemetery, Bentonville, Benton County, AR and Springtown Cemetery, Benton County, AR. Pebworth assisted Jami Lockhart (ARAS-CSP) with the geophysical grid layout and mapping of the East Mountain Cemetery and roadways, which contain unmarked graves of enslaved and emancipated African Americans of Fayetteville and the surrounding area. ARAS-UAF staff recorded the Simmons cemetery and associated homesite (3CR0379) in the spring of 2021. The site, located in Carroll County along Osage Creek, was brought to our attention by Eric Mills of the Arkansas Historic Preservation Program.
- **Consultations & Reports.** Kowalski consulted with the Osage Nation about the National Science Foundation early career grant, "Collaborative Research: Beyond Lithologic Control of Bedrock Valley Width: Investigating the Role of Persistent Valley Cover in Bedrock Valley Width Development, Buffalo River, AR," for which she is a faculty collaborator. Kowalski consulted with the Arkansas Department of Parks, Heritage, and Tourism and Black Hills Corporation for a metal-detecting project in advance of pipeline construction at Prairie Grove Battlefield (AMASDA Project #7589). Evans consulted with Wasson House and Reams Property, Springtown, Arkansas June—August 2020. Evans consulted with city officials in Siloam Springs concerning historical sites in their downtown district. ARAS-UAF and Jami Lockhart (ARAS-CSP) consulted multiple times with the Department of Parks, Heritage, and Tourism about changing the project footprint for Borden House Hillslope Project at Prairie Grove Battlefield Park. Kowalski consulted with Kari Krause, a contract archaeologist with Mergent, about a reported mound in Madison County, site 3MA38, and prepared a LiDAR map of the area. Kowalski consulted with Rebecca McLendenden, executive director of the Siloam Springs Heritage Foundation about creating a Cultural Landscape Report (CLR) for downtown Siloam Springs, Arkansas. Kowalski consulted with the Arkansas Department of Transportation, the owners of Gypsy Camp, and other ARAS archaeologists about the planned Highway 59 re-route project outside of Siloam Springs. Along with Dr. Jami Lockhart, ARAS-UAF staff completed a geophysical survey and report of a portion of newly recorded site, 3BE1080 Illinois River bridge replacement project for the Arkansas Department of Transportation in December 2020. The UAF station continues to consult with the City of Fayetteville on the development of the Woolsey Homestead property into a local museum. Pebworth conducted research and lithic analysis for Tim Mulvihill (ARAS-UAFS) on the Woolsey site and on metal conservation on artifacts from the Wilholf house. Pebworth assisted Andrew Beaupré (ARAS-UAPB) with lithic analysis.

- **Media Outreach.** Kowalski, Evans, and Mel Zabecki (ARAS Educational Outreach Coordinator) were interviewed on The Arkansas Post Podcast for a piece called “Archaeology in Arkansas,” published July 8, 2020. Evans provided project information to Phil Gast for a 2021 update for the “Civil War Picket,” an in-depth historical blog.

Service to the AAS

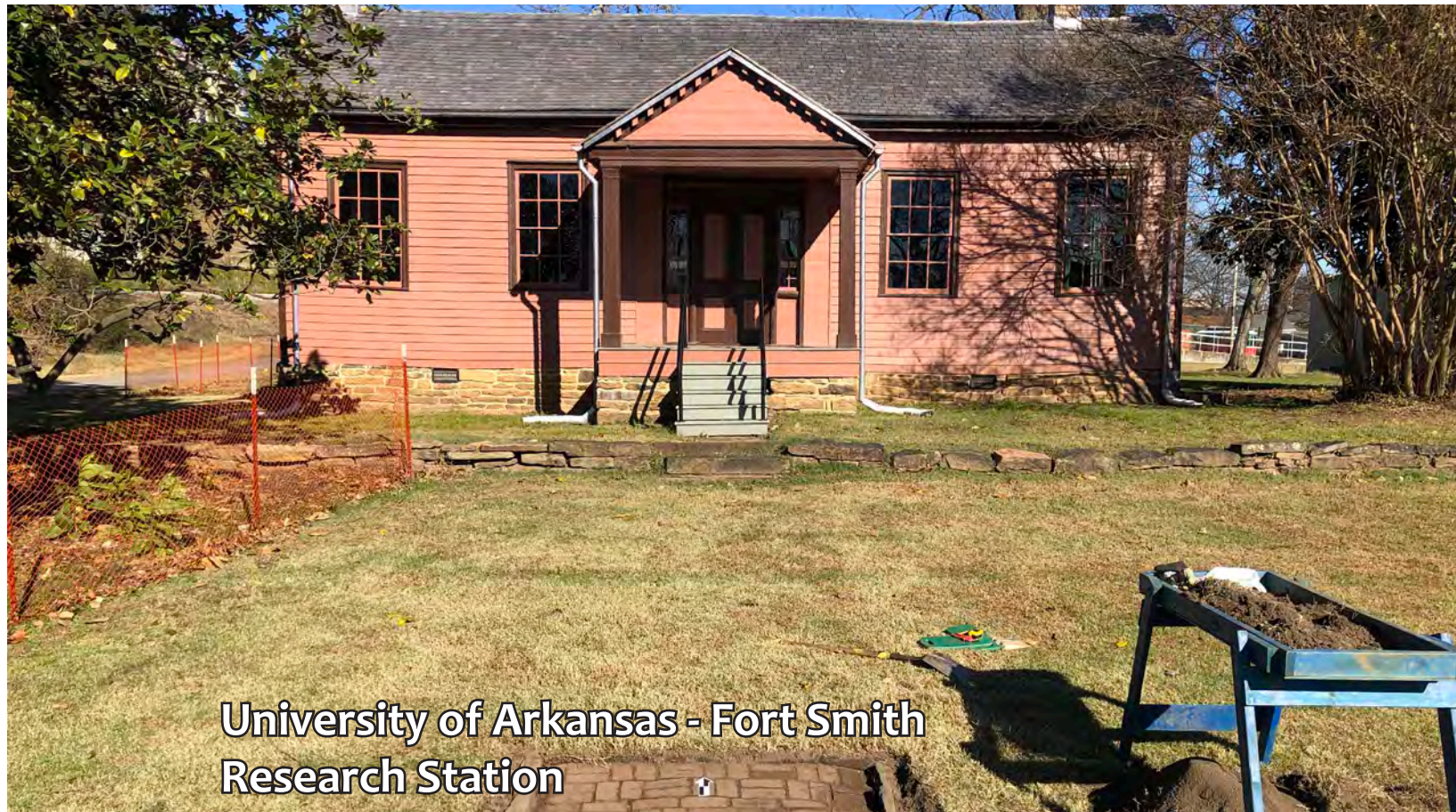
- **Programs & Presentations.** Kowalski hosted public dig days at the University of Arkansas field school for members of the AAS; arranged two speakers, Daniel LaDu and Dennis Jones, for the AAS megatalks; presented “On the Mississippi Trail: Excavations at Mound Centers in the Mississippi Delta,” an online presentation at the monthly meeting of the Central Valley chapter of the AAS, October 15, 2020 (audience 20); created a video about the UAF station and staff as part of International Archaeology Day, published on the Arkansas Archeological Society’s YouTube channel.
- **Ko-ko-ci Chapter.** The ARAS-UAF station assists and supports the Ko-ko-ci Chapter of the AAS, serving the UAF community and northwest Arkansas.

Volunteer Hours

- Volunteers (Society members, UAF anthropology students, and others) contributed a total of 104 volunteer hours during 2020–2021.



University of Arkansas students and Arkansas Archeological Society volunteers excavating at the summer field school at Watts Farm.



University of Arkansas - Fort Smith Research Station

The ARAS-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 archaeological investigations at the Drennen-Scott site 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 archaeological research in the Arkansas River Valley between Fort Smith and Clarksville in cooperation with the ARAS-UAF and ARAS-WRI research stations.

Timothy S. Mulvihill (MA, University of Arkansas, 1996) joined the Survey in 1989 as station assistant at ARAS-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 Mississippi period archaeology, site survey methodologies, and mapping.



Excavation to uncover front brick walkway of Willhaf House (3CW1297).

ARAS-UAFS Research Station Activities

The Woolsey Site 3FR46, Mulberry River Project

The Woolsey site has been an ongoing project since 2017 when it was the subject of the annual Training Program conducted by ARAS and the Arkansas Archeological Society. That year, the Training Program's additional partners were the Ozark National Forest and the USDA Job Corps center at Cass, Arkansas. The Ozark National Forest, on whose land the site was located, wanted to further investigate sites in the Mulberry River valley. An enhanced understanding of Woodland and Mississippian landscapes will enable the Forest Service to design the most effective programs for preserving and protecting these valuable heritage resources. Sites in this area seem to reflect a discrete cultural landscape that includes at least one mound site, several rock shelters, a couple of interesting rock art sites, an argillite quarry, and river terrace sites that may have served as hamlets or small villages.

Previous surface examination, shovel testing, and limited test excavations at two of the river terrace sites, including 3FR46, suggest they hold special promise as sources of important information on Woodland and Mississippian cultural developments. Recent work in the Arkansas River valley, both upstream in the Spiro locality and downstream in the Carden Bottoms vicinity, suggests that the Mulberry River may also be important as a potential boundary zone astride those two areas, each of which exhibit a distinctive developmental sequence spanning the Woodland and Mississippian periods. We hope to learn how the Mulberry River sequence compares with the Woodland to Mississippian sequences in the Spiro and Carden Bottom areas.

The 2017 Training Program recovered over 42,000 artifacts, mostly in the form of lithic debitage and tools. During the last year, we finished up the last odds and ends of lab work on artifacts excavated during the Training Program, including the artifacts from the flotation samples. All the information from the analysis has now been entered into a database and the writing of the project report has begun. Lithics from 3FR46 consisted of mostly chipped-stone artifacts of both chert and argillite, with the majority of artifacts being argillite flakes or debitage – debris left over from manufacturing argillite hoes or digging tools. The number of argillite flakes/debitage on the site is nearly 70 percent of the total number of chipped stone material. By weight, argillite flakes/debitage account for 95 percent of the chipped material.



Argillite debitage and stemmed hoes from 3FR46.

The tool most produced from the argillite material were hoes – gardening or agricultural tools. Argillite is a local stone, often found in tabular form, which makes it the ideal stone in this area to make these types of tools. It is found in the Mulberry River and there is also evidence of argillite being quarried at a nearby site. Eight complete hoes were recovered along with 19 fragments. Chert artifacts were also present at the site including a variety of projectile point types. Sixteen complete or whole points were recovered, along with 23 fragments that were identifiable to point type, and an additional 93 fragments that were not identifiable to any type. Time periods from the Middle Archaic through Late Mississippian were represented, with the number of projectile points being fairly evenly distributed among these time periods. The Late Archaic Kings Corner Notched point was the most common point type with 12 examples. Ceramics were present at the site, but only in small numbers. The ceramics consisted of 115 sherds, 100 of which were less than 2 cm² in size. Materials used to temper the clay for the pottery included shell, grog, grit, and bone – sometimes used exclusively, but also in various combinations. The only decoration was in the form of straight incised lines on two of the sherds.

The majority of artifacts found in 2017 indicate that this was a place where argillite hoes were manufactured. Most of the hoes and hoe fragments also showed evidence of use. Additionally, the discovery of two large storage pits (used to store seeds for the following year or for surplus food), along with the lack of normal village refuse such as animal bone or large quantities of ceramics, and no evidence of structures, indicate that at least this portion of the site was used for tool manufacturing and gardening, or agricultural purposes, rather than habitation.

Spiro Area Project

During two weeks in April and May, Mulvihill assisted Dr. Scott Hammerstedt and Dr. Amanda Regnier of the Oklahoma Archeological Survey with a geophysical survey project just across the border in Oklahoma at the Fears site (34SQ76). Approximately 8 acres (or sixty 20x20 meter grids) were surveyed using a gradiometer, and some grids were further surveyed using ground penetrating radar and electrical resistance. Prior work at this site indicated that it was related to the Spiro site and other sites of that time period in Eastern Oklahoma and Western Arkansas, and it had previously been placed on the National Register of Historic Places. Over the past decade, archaeologists from the Oklahoma Archeological Survey, University of Oklahoma, and the Arkansas Archeological Survey have worked together at the Spiro site conducting remote sensing, mapping, and excavations. This latest work continues that cooperative effort of the three institutions conducting research on the late prehistoric past in the region.

Working with Students

Because of the limitations imposed by the Covid-19 pandemic and a small class size for the UAFS Introduction to Archaeology class in the fall of 2020, Mulvihill met with students in the lab where they were individually introduced to a variety of topics related to archaeology. Participatory assignments, or hands-on learning, allowed students to learn by doing. Various excavation methods and mapping techniques were demonstrated. Students learned how total stations, or laser surveying instruments, are used by archaeologists to maintain spatial control on a site. They had the opportunity to clean and sort different artifact types and were introduced to ceramic analysis. Students also participated in a flintknapping exercise (a prehistoric technology of making flaked or chipped stone tools) and tried their hand at the atlatl to propel a stone-tipped spear.

Willhaf House and Drennen-Scott Historic Site

The Willhaf House and Drennen-Scott Historic Site are nineteenth century properties located near the downtown area of Van Buren, Arkansas and owned by the University of Arkansas - Fort Smith. The properties are an important part of the early history of Van Buren and the ARAS-UAFS Research Station has conducted archaeological research on the properties since they were acquired by UAFS. Drennen-Scott was the home of one of Van Buren's founders – John Drennen – while the Willhaf House, just down the hill from Drennen-Scott, on the edge of the downtown area, belonged to Leonard Willhaf, a German immigrant who operated the first bakery in Van Buren.



Introduction to Archaeology student flintknapping.

For the past five years, the Willhaf house has undergone stabilization and rehabilitation work, with Mulvihill consulting on archaeological matters. The final phase of construction began this year, involving mostly exterior work including new utility lines (gas, water, sewer, electric), new walkways, a garden area, and an accessibility ramp to the back door. Mulvihill and Tom Wing (UAFS professor and Director of the Willhaf House and Drennen-Scott properties) monitored these activities to collect any artifacts and record and inves-

Willhaf House (3CW1297) during the last phase of construction (looking east).

tigate any new features that might be uncovered from ground disturbance. As of the end of the fiscal year, no new features have been identified, but many artifacts were recovered, including broken ceramics, bottles (and fragments), animal bone from meals, canning jar lids, a key, a broach, part of a ceramic doll's face, a toy teapot lid, marbles, and a rusted toy pistol. The locations of these common finds were noted and each cluster of artifacts gives clues as to the activities that took place on different parts of the property, such as the cluster of children's toys, or discarded animal bones from meals which may indicate the location of the kitchen. Work also continued in the lab with the cleaning and analysis of artifacts previously acquired from both of these sites.

Historic Aerial Photos

The ARAS-UAFS station continued to scan historic aerial photos that are on loan to the Survey from the Geology Department at Arkansas Tech University. The photos date from the late 1930s, 40s, and 50s and provide important information on former land use, changes in river channel locations, and the location of historic structures and features on the landscape. These photos are used prior to beginning new archeological research, including site survey, excavation, and geophysical survey projects on historic and prehistoric sites. So far, we have completed scanning photos for 21 counties and have created flight line keys for counties for which that information was missing.

ARAS-UAFS Awards, Service & Outreach

Teaching & Higher Ed

- Mulvihill taught ANTH 2203, Introduction to Archaeology (6 students), during Fall 2020.
- Mulvihill worked with other faculty in the UAFS Behavioral Sciences Department on a proposal to adjust course offerings in Anthropology and a proposal to introduce a new minor to the curriculum committee.
- Ongoing consultation and archaeological research at the Drennen-Scott Historic site.

Records & Collections

- The ARAS-UAFS station continued to scan historic aerial photos on loan to the Survey from the Geology Department at Arkansas Tech University. Twenty-one counties have been completed.
- Mulvihill continued organizing and scanning ARAS-UAFS station records.

Public Service & Outreach

- **Programs & Presentations.** Mulvihill recorded an introduction video for International Archaeology Day that was posted on the Survey's YouTube channel (36 views).
- **K–12.** Mulvihill gave two online presentations on Arkansas prehistory to Ozark High School concurrent US History classes on October 2nd (39 students total)
- **Other Outreach & Public Service.** Mulvihill responded to 47 contacts from the public about possible artifact identifications. These were all done by email, phone, or social media due to Covid-19 restrictions. One case involved identifying over 30 projectile points from photos with help from Jared Pebworth (ARAS-UAF). Another case involved identification of prehistoric artifacts thought to be from the Fort Smith area. The current owner in Michigan wanted to return them to Arkansas and will be mailing them soon.

Service to the Arkansas Archeological Society

- **Ark-Homa Chapter.** The station advises and supports the Ark-Homa Chapter of the AAS, serving the Fort Smith Area. Mulvihill met with the ARAS-UAFS Station Society Board of Advisors by phone and email to complete the yearly Station review/report. Mulvihill continued with online Ark-Homa chapter meetings in September and October. Once the Society started a monthly online statewide Society meeting, the Ark-Homa Chapter joined in with those.

Volunteer Hours

- No volunteers due to Covid-19 restrictions.



University of Arkansas at Monticello Research Station

The ARAS-UAM research station is located on the University of Arkansas at Monticello campus, where the station archaeologist teaches anthropology courses in the School of Social and Behavioral Sciences, conducts research, and hosts public outreach programs. The station territory covers seven counties in southeastern Arkansas. This portion of the state consists of landforms deposited by the ancestral Arkansas and Mississippi Rivers and their tributaries. People have lived in this region for at least 9,000 years and archaeologists have investigated the lives of the American Indians and the African, Asian, and European Americans who lived here in the past. Among many significant sites in the station territory is the oldest known Indian mound in Arkansas. Archaeological research shows that the people who built it 3,500 years ago were affiliated with the famous Poverty Point culture. At the opposite end of the time scale, the Taylor/Hollywood Plantation 1840s log house in Drew County and Lakeport Plantation in Chicot County are the sole remaining pre-Civil War plantation houses on the Mississippi Delta in Arkansas. Southeast Arkansas is also the location of several sites from Arkansas's World War II Home Front Heritage, including Rohwer and Jerome, both Japanese American internment camps, and Camp Monticello, an Italian prisoner-of-war camp.

Jodi Barnes (PhD, American University, 2008) is the Survey's Research Station Archaeologist at UAM and Research Associate Professor for the Department of Anthropology, University of Arkansas Fayetteville. She joined the Survey in January 2013. She was previously staff archaeologist and GIS coordinator for South Carolina's State Historic Preservation Program. Her research ranges from the archaeology of the African diaspora to World War II Home Front Heritage. She has published articles in journals such as *International Journal of Historical Archaeology*, *Historical Archaeology*, and *Southeastern Archaeology*, plus a number of book chapters. She recently edited a thematic issue of *Historical Archaeology* on the intimate archaeologies of World War II. She also edited the book *The Materiality of Freedom: Archaeologies of Post-Emancipation Life*, and co-edited the volume *Managing Cultural Resources: Global Context, National Programs, and Local Actions*, with Frank McManamon and Andy Stout.

A team of volunteers map, photograph, and record gravestone inscriptions at an African American cemetery in Desha County.

ARAS-UAM Research Station Activities

Changing of the Guard

This year brought significant change to the ARAS-UAM research station. Dr. Jodi Barnes took her leave of the Survey and Arkansas at the end of 2020 to pursue her career goals elsewhere in the southeastern United States, and her replacement, Dr. Matthew P. Rooney, did not begin work until July 1, 2021. This report is therefore only on the first half of the fiscal year, July through December 2020, since the ARAS-UAM station was not in active operation between January and June of 2021.

The Hollywood Plantation

Due to the COVID-19 pandemic, the usual activities of fieldwork and public outreach were on hold throughout the tail end of 2020. Barnes therefore focused her attention on writing projects, particularly on those related to ongoing research at the Hollywood Plantation.

Barnes submitted a draft report to the Survey's Research Series where she compiled all of the data available in connection with the site and provided an overview of research methods and previous research on the 10,000-acre plantation site. She mapped all of the sites in the Hollywood area to examine the way people inhabited and transformed the landscape over time. In her draft, Dr. Barnes placed heavy emphasis on an examination of artifacts connected to foodways, health, infrastructure, and small finds to talk about everyday life at Hollywood.

In addition to this report, an article written by Barnes entitled "Behind the Scenes of Hollywood: An Archaeology of Reproductive Oppression at the Intersections," was published in the scholarly journal, *American Anthropologist*, which is the flagship journal of the American Anthropological Association.

Barnes also co-edited a volume with Stacey Camp (University of Michigan) and Sarah Surface-Evans (Central Michigan University) on the archaeology of health for the *International Journal of Historical Archaeology*. They completed the round-robin peer review, and Barnes revised her article on the medicine bottles from the Hollywood Plantation as well as contributing to the introduction.

Examples of whiteware dishes from Hollywood Plantation excavations.



Examples of bottle glass finishes, or lips from Hollywood Plantation excavations.

African American Cemeteries

In 2019, the ARAS-UAM and ARAS-UAPB research stations mapped two African American cemeteries in Desha County: the Bates Cemetery (3DE0261) and Little Mount Olive Cemetery (3DE0302) with a team of volunteers. During the fieldwork, Bob Scott (ARAS-UAPB) mapped the grave markers and depressions, while others photographed and recorded gravestone inscriptions.

In 2020, Barnes created databases for each cemetery, where she assigned each grave marker a number on a map that corresponds to its inscription, photograph numbers, marker type, current condition, and other details in the database. These databases can be used to develop preservation plans for these endangered sites, of which there are many in the ARAS-UAM station area.

ARAS-UAM Awards, Service & Outreach

Teaching & Higher Ed

- Jodi Barnes served on the Master's thesis committee for Devin Sorrows (Public History) at the University Arkansas at Little Rock.

Records & Collections

- Barnes organized files and collections and updated databases.

Professional Service

- **Professional Organizations.** Barnes served as a member of the Board of Directors of the Society of Historical Archaeology; served on the Gender and Minority Affairs Committee and Academic and Professional Training Committees; facilitated a memorandum of agreement between SHA and the Society for Black Archaeologists. Barnes also served on the SHPO Task Force of the Society of Black Archaeologists and the Public Outreach Committee of the Southeastern Archaeological Conference.
- **Editorships & Peer Review.** Barnes served as Associate Editor for the journal *Historical Archaeology*.
- **ARAS Committees.** Barnes served as Chair of the Personnel Committee through October.

Public Service & Outreach

- **Preserve Arkansas.** Barnes assisted with the Behind the Big House planning for 2021.
- **Cemeteries.** Barnes created databases for Bates Cemetery (3DE0261) and Mount Olive Cemetery (3DE302) that can be used for preservation plans for these sites.
- **Consultations.** Barnes responded to a US Fish and Wildlife report of looting in Cleveland County, which resulted in the documentation of a new site, 3CV0138, and an associated collection of ceramic sherds and lithic flakes that were confiscated. The UAM station also documented damage to the site and mapped some of the looter pits. Dr. Barnes completed a site file and wrote a letter assessing the value of the destruction to be sent to the prosecutor's office.



Artifacts recovered from the illegal looting activity on 3CV0138.

Service to the Arkansas Archeological Society

- **Programs & Presentations.** Barnes presented the paper, “An Archeology at Hollywood Plantation” to the Ouachita Chapter on October 20.
- **Tunican Chapter.** The station supports the Tunican Chapter of the AAS, serving the Monticello campus community and southeast Arkansas.

Volunteer Hours

- Volunteers did not work in the UAM laboratory due to the Covid-19 pandemic.



University of Arkansas at Pine Bluff Research Station

The ARAS-UAPB research station is located on the University of Arkansas at Pine Bluff campus. The station archaeologist teaches courses in the UAPB Department of Social and Behavioral Sciences. The station conducts archaeological research in 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 archaeological heritage of the area includes sites representing 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.

Andrew Beaupré (PhD, College of William and Mary, 2017) is the Research Station Archaeologist for UAPB, Research Assistant Professor of Anthropology, University of Arkansas Fayetteville, and a member of the graduate faculty at the University of Arkansas at Little Rock. He has been interested in archaeology since his first visit to an excavation in the fourth grade. His current research interests include historical archeology, culture contact and colonialism, landscape archaeology, heritage studies, and public archaeology. He has excavated throughout the eastern seaboard of the United States, in Canada, and as far away as Australia. Prior to joining ARAS, Beaupré was the inaugural Postdoctoral Teaching and Research Fellow in the McCormick Center for the Study of the American Revolutionary Era at Siena College in Loudonville, NY. He has also taught courses at the University of Vermont, several community colleges, and has worked as a cultural resource management archaeologist.

Robert J. Scott (PhD, Southern Illinois University Carbondale, 2018) has worked previously for the Illinois State Museum, the Center for Archaeological Investigations at Southern Illinois University Carbondale, and Panamerican Consultants, Inc. He was station assistant at the ARAS-UAM research station from 2004–2007, and re-joined the Survey at ASU in 2010 after attending the PhD program at SIU. He transferred to the UAPB station in 2013. Scott served as the Interim Station Archaeologist for ARAS-UAPB between January and August of 2019, and returned to the position of station assistant when Andrew Beaupré came on board. His research interests include Lower Mississippi Valley archaeology and ethnohistory, the archaeology of colonial era Native Americans, pottery analysis, material culture studies, and applied zooarchaeology.

ARAS-UAPB Research Station Activities

Boy Scouts of America - Archaeology Merit Badge

During the summer of 2020, Andrew Beaupré developed and implemented YouTube video requirements for the Archaeology Merit Badge for implementation in the Quapaw Council of the Boy Scouts of America Virtual Summer Camp. In the ensuing year, Beaupré worked with several Arkansas scouts from the Quapaw and Desoto, as well as scouts from other councils in the US.

In the summer of 2021, Beaupré built on his previous work with the Quapaw Council and taught the Archaeology Merit badge in person. The council's Camp Rockefeller in Damascus, Arkansas was able to run Covid-19 adapted programs for the summer season. Each Friday in June, Beaupré spent the day at camp, teaching the Archaeology Merit Badge to a total of 38 Boy Scouts. He has also committed to teaching the badge at the Christmas Break Camp in December 2021.

Eagle Lake

Robert Scott began working with emeritus ARAS-UAM Station archaeologist Marvin Jeter and Dr. Don Bragg (USDA Forest Service) in the spring to finish the analysis and write-up of artifacts from controlled surface collections and excavations Jeter directed at the Eagle Lake site (3BR4) between 1992 and 1995. Eagle Lake is a multi-mound ceremonial center and habitation site located in southern Bradley County and represents a largely unstudied site type in the eastern Felsenthal region. Jeter's field investigations (1992–1995) were aimed at collecting data needed to establish the site's occupational history, and the chronology and methods of mound and plaza construction. In May, Scott reexamined and revised previous classifications of the lithic and ceramic artifacts and created a computerized database of the data. The next stage of the project will be to examine the spatial distribution of temporally diagnostic artifacts to determine if there are changes in the use of space within the site through time and, if there are such changes, how they correlate with the beginning of construction and use of each of the site's four mounds. At present, the goal is to have a complete book manuscript on the Eagle Lake site prepared by December of 2021.

Estevan Hall

In December of 2020, Beaupré was contacted regarding a local development project that was taking place at an antebellum mansion in Helena, Arkansas. He spoke with the Philips County Judge and was invited to visit the site. Local lore indicated that a slave quarter, a slave cemetery and a 'slave pool' were present on the property.

It was not until Beaupré and Scott arrived for the initial site visit that the full extent of the project was communicated. The county acquired the property as a result of the property being foreclosed and donated by the bank. The County Judge plans to turn the property into a wedding venue. Beaupré and Scott were unable to locate the cemetery on their initial visit. They did locate a mid-century cabin site, the remains of plantation outbuildings, and several surface finds. Two site forms have been filed for the property, one for the cabin and one for the outbuildings,

Beaupré and Scott visited the site again as the county was undertaking planned clear cutting of the now wooded grounds. They were able to monitor the sitework in an effort to protect archaeological resources. The clear cutting was cut short and ARAS-UAPB will be invited to monitor once the clear cutting and dredging of the old lake resume. This project is ongoing.

Upper Bayou Meto Survey

Scott continued the archaeological survey of a 54-hectare tract south of Jacksonville extending from Military Road southward to the north bank of Bayou Meto. The survey area is property owned by the family of Mike Wilson. The purpose of the project is to collect new data on prehistoric site locations, characteristics, and settlement history along Bayou Meto. Two previously unrecorded sites (3PU1085 and 3PU1086) consisting of low-density lithic scatters were discovered and additional fieldwork is planned in the coming year.

Other Publication Projects

During the Covid-19 Pandemic, Beaupré devoted some time to completing writing projects begun prior to his tenure at the Arkansas Archeological Survey. An article entitled, "‘The Jesuits Mission Proves We Were Here’: The Case of 18th Century Jesuit Missions Aiding 21st Century Tribal Recognition", an outgrowth of a 2019 Society for Historical Ar-

Photo on facing page: Bob Scott leading the Archaeological Conservancy around the Menard locality.

chaeology paper was published in the *Journal of Jesuit Studies*, vol.8, issue 3 (April 2021): *The Archaeology of Jesuit Sites in the Americas* (https://brill.com/view/journals/jjs/8/3/article-p454_454.xml). On Thursday, April 29, he was honored as an invited speaker at the “Jesuit Thursday Luncheons” series held via Zoom at Adam Mickiewicz University in Poznan, Poland. This invitation was an outgrowth of this recent publication.

The chapter, “Skeletons in the Cabinet: Memory and the Human Remains Attributed to the Schenectady Massacre of 1690s,” penned by Beaupré and two former students, was officially accepted for publication in the University of Florida press volume, *Beyond the Battlefield: Historical Memory, Archaeology, and the Social Experience of War and Conflict* for the Paul Shackle edited Cultural Heritage series. This item is now in press.

Records and Collections

Arkansas Post (3AR47, 3DE0023) Collections. Beaupré began to examine the entirety of the Arkansas Post National Memorial collections held by the ARAS. Some of these artifacts are now out of the CO for study by Christy Hendricks, a graduate student in the Public History MA program at University of Arkansas at Little Rock. While on a research trip to the CO, Beaupré and Kathy Cande (ARAS-SRP) discovered a series of maps of the Arkansas Post National Memorial property that had not been scanned into AMASDA. Beaupré arranged for these “lost” maps to be digitized. The larger study of the artifacts and documents is vital to the further development of a research plan for future excavation at the Arkansas Post.

James E. Bradford Donation. In early July, Carolyn Bradford, now living in Texas, contacted the Survey with an offer to donate several boxes of Native American artifacts left to her by her late ex-father-in-law, James E. Bradford. Our state archaeologist, Mel Zabecki, agreed to accept the donation and on July 11, Robert Scott drove to Hot Springs Village, where Ms. Bradford was visiting a relative, to take possession of the collection. According to Ms. Bradford, James Bradford was a lifelong resident of Little Rock and, to her knowledge, the bulk of his collection was from sites in central Arkansas. She noted, however that Mr. Bradford worked for an electric company and his duties required traveling all over state and he may have acquired artifacts for his collection from various other parts of Arkansas.

The collection consists of 1,782 prehistoric and historic lithic, ceramic, bone, shell, and metal artifacts. Once the inventory of the collection was underway at UAPB it became obvious that the artifacts in Mr. Bradford’s collection were not only from all over the state of Arkansas, but many were likely from other states. Only 95 artifacts were labeled, directly or indirectly, with some kind of provenience information. In most cases, the provenience information is the county the artifact was from (in three cases the artifacts are from counties in Illinois and Missouri). Several artifacts in the collection were purchased by James Bradford from other collectors and dealers, including Caddo Trading Post for which three identification cards were found in one box: one for a white kaolin pipe from Virginia dated AD 1600–1700, and two for banner stones that are not in the donated collection. There are also artifacts from Illinois, Kentucky, Missouri, and possibly Oklahoma. Though most of the collection lacks provenience information, it is a valuable addition to the station’s teaching collection and provides specimens that can be used in future museum exhibits.

Isgrig Site 3PU0015. The ARAS-UAPB station accepted the transfer of 64 boxes of the Isgrig Site from the CO. The collection had been the focus of the abandoned dissertation project of former UAF Anthropology PhD student and Survey employee Jessica Howe Coggburn. The collection was too large to be housed in the UAPB Station. Beaupré transported it back to the CO to facilitate its entrance into storage. The attempted transfer of the collection brought the severe lack of storage space at the station into focus.

Joe Madonia Collection. In 2006, Joe Madonia of Helena, Arkansas donated a large and meticulously documented prehistoric artifact collection to the ARAS-UAPB research station. The collection consists of thousands of arti-



UAPB student working on the Madonia collection.

facts—including pottery sherds, chipped stone dart and arrow points, projectile point preforms, blanks, cores, debitage, ground stone celts, cobble tools, and other artifact categories—collected by Madonia from over 100 sites in Phillips and adjacent counties in Arkansas, as well as in Louisiana and Mississippi. Station personnel began preparing the collection for curation in 2007. This included sorting the specimens by site and accessioning them into the ARAS cataloging system. Unforeseen circumstances interrupted curation, leaving approximately 40 percent of the collection unsorted and unaccessioned. This curation project was taken up again and completed in the spring of 2019, a task that was only possible with the help of volunteers who collectively contributed 90 hours to the project. This first stage of the curation process had two goals: (1) to sort the remainder of the collection by site; and (2) to count, weigh and discard all unmodified and fire-cracked rock. Early this spring, Scott started the next stage of the curation process which involves classifying and counting artifacts by site and material class, beginning with the ceramic artifacts (pottery and other artifacts made of fired clay).

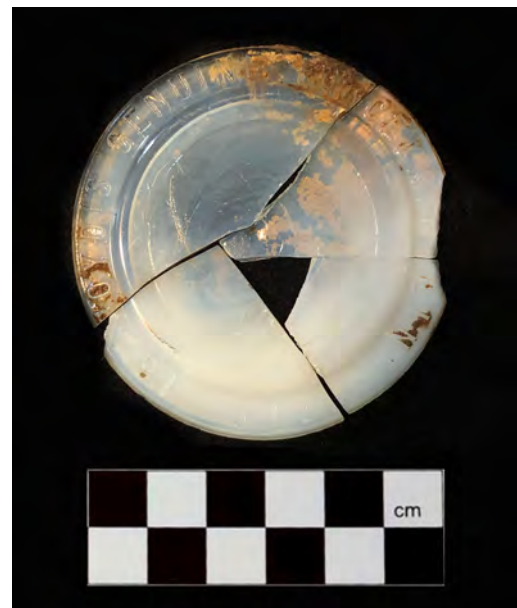
The classification and tabulation of the pottery and other ceramics was completed in mid-March. The ceramic artifacts consist of 7,340 pottery sherds from about three dozen different sites, four broken and partial pottery vessels from an unknown site location near Elaine, Arkansas, and several large pieces of fired clay daub from burned Mississippian houses. This includes pottery from nine sites in Mississippi. The majority, however, is from sites in Lee and Phillips Counties, and a minority percentage of the collection is from sites in Craighead County.

Menard-Hodges & Lake Dumond Collections. In October 2020, Scott completed the inventory and preliminary analysis of artifacts from the 1997–98 Arkansas Archeological Society Summer Training Program excavations at the Menard-Hodges (3AR4) and Lake Dumond (3AR110) sites. Scott and Beaupré finalized the formal donation of the Menard-Hodges collection from The Archaeological Conservancy to the Arkansas Archeological Survey. The Conservancy owned the Menard-Hodges site at the time the archaeological investigations were undertaken. The donation was finalized in May 2021.

Nexi Sumner Donation. Ms. Nexi Sumner of Pine Bluff, Arkansas donated a small collection of artifacts that her late husband found at sites in the vicinity of Pine Bluff and Wabaseka, Arkansas. The artifacts consist of diagnostic dart and arrow points, ground stone celts, and two Caddoan ceramic Red River pipes.

Wallace Bottoms (3AR179) Faunal Collection. Beaupré's work with the Wallace Bottom Faunal Collection continues. Dr. Terrance J. Martin, Curator Emeritus of Anthropology at the Illinois State Museum is currently analyzing the last of the feature 12 faunal samples. This portion of the analysis is being underwritten by a Hester A Davis Grant (\$1,622.85). Martin described "an interesting mix of domesticated and wild animal remains in feature 12" and said "Wallace Bottoms is definitely interesting in terms of looking at European influence on a post-contact village whose inhabitants are interacting with the local French settlers/residents." A team of researchers will coauthor an article on the combination of the recent faunal study and artifactual and historical information centered on foodways at Arkansas Post. This team consists of Dr. Martin, Dr. John House, Judge Arnold, Dr. Scott, and Dr. Beaupré.

Artifact of the Month. Beaupré contributed to the ARAS "Artifact of the Month" web series, writing "Boyd's Porcelain Lined Canning Jar Lid" for the April 2021 artifact of the month. This artifact (and many others like it) were recovered from his work with Little Rock backyard archaeology.



Four fragments of a Boyd's canning jar liner.

ARAS-UAPB Awards, Service & Outreach

Grants, Honors & Awards

- Andrew Beaupré received a Hester A. Davis Small grant for “Faunal Analysis of Feature 12 - Wallace Bottom Site 3AR179” to support his research project on foodways at the early Arkansas Post. The grant (\$1,622.85) will remunerate project partner Dr. Terrance J. Martin for the zooarchaeological analysis of faunal remains and resupply him with expendables in the form of plastic artifact bags.
- Beaupré was honored as an invited speaker at the “Jesuit Thursday Luncheons” series held via Zoom at Adam Mickiewicz University in Poznan, Poland in April 2021. This was an outgrowth of his recent publication in the *Journal of Jesuit Studies*.

Teaching & Higher Ed

- Beaupré taught SOCI 2330, Introduction to Anthropology, at UAPB during Fall 2020 semester (46 students).
- Scott taught SOCI 1320, Introduction to Social Sciences, at UAPB during Spring 2021 semester (60 students).
- Beaupré taught the inaugural section of SOCI 2340, Introduction to Archaeology, at UAPB during Spring 2021 semester (Online - 10 students).
- Beaupré taught a section of Intro to Archaeology at University of Arkansas at Little Rock (UALR) during Spring 2020 semester, strengthening ties between the survey and the UALR department (Online - 18 students).
- Beaupré and Scott supervised UALR Senior Kevin Latting in an independent study reading course centered on Arkansas archaeology.
- Beaupré is currently working with Christy Hendricks, a graduate student in the Public History MA program at UALR. Her thesis focuses on the archaeology of Native Americans at Arkansas Post.
- Beaupré consulted on and edited a Master’s thesis on nineteenth century fortifications.

Professional Service

- **Professional Organizations.** Beaupré and Scott are serving with several other members of the ARAS on the Southeastern Archaeology Conference (SEAC) annual meeting. Beaupré joined the Society of Historical Archaeology’s Heritage at Risk Committee. On July 24, 2020, Beaupré was appointed by the governor’s office to the State Review Committee for Historic Preservation. He has now voted on nearly a hundred cases for addition to the Arkansas and National Registers of Historic Places.
- **Editorships & Peer Review.** In the last year, Beaupré was contacted by two colleagues to review pieces prior to submission in peer reviewed journals. Beaupré also reviewed three colleagues’ work for publication in non-peer reviewed journals. These comments are thus de facto peer review.
- **ARAS Committees.** Scott completed his term as chair of the Hester A. Davis Fund committee. Beaupré was elected to the Committee in June 2021. Scott was elected as alternate. Beaupré was elected to the ARAS publications committee. Additionally, the UAPB station provided assistance to the Toltec and UAM stations while their station archaeologist posts were vacant.

Public Service & Outreach

- **Programs and Presentations.** In January 2021, Beaupré presented an invited paper, “The Creole Village: ‘French’ Culture in the 19th Century Trans-Mississippi South, in the session Shifting Borders: Early-19th Century Archeology in the Trans-Mississippi South, recorded December 1, 2020, for the 54th Annual Conference on Historical and Underwater Archaeology January 2021 (virtual). In April 2021, Scott and Beaupré led a group from The Archaeological Conservancy on a tour of the Menard-Hodges site and Arkansas Post National Memorial (audience 40). Beaupré gave a talk on urban archaeology in Little Rock, “Archaeology in Your Backyard: Discoveries at the Doty-McAlpine House,” to the Quapaw Quarter Association as part of the Preservation Conversation series (audience 28; 40 views on YouTube). Scott recorded a 15-minute video on archaeological shell remains for the Survey’s YouTube page (<https://www.youtube.com/watch?v=y3icAALf7uI&t=2s>).
- **Archaeology Month, March 2020.** Scott gave a live virtual presentation on the UAPB station’s research collections that streamed on the Survey’s Facebook page. Beaupré held five virtual events for Arkansas Archaeology Month: the March 6 lecture, “The Many Arkansas Posts History and Archaeology,” cosponsored by the Arkansas Post National Memorial (audience 19); the March 10 lecture, “Initial Archaeological Investigation of an Antebellum Mansion Site,” cosponsored by the Helena Museum of Philips County (audience 12); the March 12 lecture, “Thoughts on Working in Arkansas Archaeology,” an invited lecture in the UALR Lunch Lecture Series

(audience 11); the March 18 lecture, “State of French Colonial Archaeology in Arkansas,” an invited lecture in the Old State House Museum’s Lunch Lecture Series (167 views on YouTube); March 26 ARAS Noon Facebook Live lecture on the establishment of the archaeology class at our HBCU, the University of Arkansas at Pine Bluff.

- **K-12.** In November 2020, Scott gave a live virtual presentation on the analysis and significance of archaeologically recovered shell for the Shiloh Museum that was streamed to students across Arkansas and adjacent states. On June 10, Beaupré accompanied Hope Bragg to Perry County to serve as the archaeologist of record for a 4-H Project Archaeology event (15 children).
- **Cemeteries.** Scott mapped and recorded the Macedonia Cemetery (3LN695) in Lonoke County for George Wilson of North Little Rock, who has taken on the responsibility of clearing and preserving the cemetery. Beaupré also worked with Mr. Wilson regarding a case of recognition of the site on the National Register of Historic Places. In March 2021, Scott visited and recorded a small family cemetery (3CV139) in Cleveland County, approximately 10 miles from Kingsland, at the request of Linda West Jostin of Maumelle. Scott and Beaupré continued assisting Edna Briggs with her plans to document graves in two large cemeteries in Pine Bluff (Grace-land and Pine Bluff Cemeteries). ARAS-UAPB also continued to work with volunteer Elle Thompson on the documentation of African American Cemeteries in and around Pine Bluff and Jefferson County.
- **Consultations.** Scott corresponded with Nikki Bayette, an undergraduate at the University of California, Berkeley, whose thesis project concerns the Elaine Massacre; fielded questions from Lauren Capps who was working with a team on a documentary about the Red Summer of 1919 for the National Geographic Channel; met with Dr. Tammy Heise from the University of Wyoming in Little Rock, to discuss our current state of knowledge of the archaeological record of the Massacre, as well as past and current obstacles to conducting fieldwork. At the request of Mike Dennis, Scott monitored backhoe excavations for a septic tank in Crockett’s Bluff. Mr. Dennis was concerned about the possibility of disturbing unmarked graves based on local rumors that soldiers were buried in the area during the Civil War. Shallow stripping of the ground surface failed to uncover soil discolorations that would indicate the presence of graves, or any other kinds of archaeological features. Beaupré has continued to work with Ms. Lucy Cannon Neal, Director of the Abenaki Library and Cultural Center. The station also answered requests for information and consultation from multiple municipalities, CRM firms, and state and federal agencies, including the USDA Natural Resource Conservation Service and Arkansas’s Delta Heritage Trail State Park.
- **Media Outreach.** Scott manages a Facebook page for the UAPB Station, with 1,230 followers in 10 counties. Beaupré manages the UAPB station’s Instagram, with 260 followers. Beaupré was interviewed by Channel 11 on archaeology in the backyards of Little Rock (<https://www.thv11.com/article/news/history/quapaw-quarter-historical-artifacts-on-their-property/91-b93d64ac-23bc-4866-a4a6-cfb2386ebbbf>). This was an outgrowth of the lecture given to the Quapaw Quarter Association.
- **Other Outreach & Public Service.** Scott identified artifacts for people in Arkansas, Phillips, Grant, Cleveland, Saline, and Jefferson Counties. Three individuals emailed pictures of artifacts to the UAPB Station. Beaupré has continued his role on the board of directors of the Arkansas State House Society (the young professional affiliate of the Old State House Museum Associates).

Service to the Arkansas Archeological Society

- **Programs and Presentations.** Beaupré presented a virtual lecture via Zoom to the Ark-Homa Chapter on October 15. The lecture was an early version of the QQA lecture, “Archaeology is Everywhere Under our Feet: A New Home, a ‘Honey-Do List’ and Backyard Archaeology in Little Rock”. On November 12, Beaupré presented a lecture via Zoom, to the Central Mississippi Valley Chapter. This was an early version of his SHA paper, “The Creole Village: ‘French’ Culture in the 19th Century Trans-Mississippi South”. In December, Scott gave the talk, “Shell Remains from the Heber Springs Site,” the first statewide virtual presentation on the results of the recently completed analysis of mussel shell from a Late Woodland/Early Mississippi period (AD 700-1,000) site in Cleburne County (audience 37). Beaupré recruited Dr. Cameron B. Wesson, to present the Arkansas Archeological Society’s May statewide Zoom lecture.
- **Volunteer Opportunities.** The station invites local Society members to assist in the lab or fieldwork whenever opportunities arise.

Volunteer Hours

- Volunteers Elle Thompson and Charlette Dollar contributed 10 hours to station research and cemetery preservation projects during 2020–2021.



Winthrop Rockefeller Institute Research Station, Morrilton

The ARAS-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, with a mission “to develop diverse programs that nurture ideas, policies and activities to make life better in Arkansas.” The ARAS-WRI research station conducts archaeological research in 11 counties of mountainous west-central Arkansas, including the southern fringe of the Ozarks 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 archaeological resources in the station area range from rock shelters and rock art sites (including Edgemont Shelter 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 the contact period Native American town of Carden Bottoms in Yell County, to the early nineteenth-century town of Cadron in Faulkner County.

Emily Beahm (PhD, University of Georgia, 2013) joined the Survey as an assistant at the WRI research station in January 2014 and was promoted to station archaeologist beginning July 2015. She is also a Research Assistant Professor of Anthropology for the Department of Anthropology, University of Arkansas Fayetteville. Her major fields of interest are archaeology 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 archaeology for various private firms, mostly in the Ouachita National Forest, before joining the Survey in 1999 as archaeological assistant at the ATU (now WRI) research station. His interests include the prehistoric Woodland and Mississippian 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 archaeological subjects have appeared in publications and museum exhibits.

Above, Emily Beahm (ARAS-WRI) taking photos of gravestones at the Ida Bell Cemetery in Palarm, Arkansas.

ARAS-WRI Research Station Activities

Rock Art and Photogrammetry

Station Archaeologist Emily Beahm has been crafting the Arkansas Archeological Survey's new rock art website since April. While it is not yet complete, the redesigned website will feature extensive photographs and will hopefully inspire new interest in Arkansas's fantastic rock art sites.

The major headings for the website include "Foundations," "Context," "The Sites," "Motifs," "Interpretations," "Preservation," and "Additional Resources." Each of these main sections has a number of subsections designed to put Arkansas's rock art sites in context both culturally and within the landscape, and to present this information in a way that is accessible and engaging to a wide audience. Content includes rock art definitions and frequently asked questions, a history of rock art research in Arkansas, a list of rock art related references, as well as Arkansas-specific information. Information for Arkansas rock art sites will include site background and overview, photographs of the site setting and rock art images, a black and white rendering of rock art elements, D-stretch modification to photos of pictographs, and published references to each site when relevant. On a landscape scale, the website will explore the distribution of rock art sites, motifs, and styles across the state. Larry Porter contributed projectile point identifications and an illustration.



Set up at ARAS-WRI for creating 3D models of artifacts using photogrammetry.



Generated with [Agisoft Metashape](#)

Picture of 3D model of bluff shelter with rock art.

Signs urging the protection of the site at Ida Bell Cemetery.

Ida Bell Cemetery

The ARAS-WRI station was contacted near the end of 2020 about the Ida Bell Cemetery (3FA162) in Palarm, Arkansas. This cemetery is adjacent to a building development and in danger of being disturbed by future development. Dr. Beahm gained permission to map the cemetery and delineate the boundaries early in 2021. Mapping was conducted in early 2021 and the boundaries of the cemetery were estimated based on the distribution of visible graves. Because of the extensively overgrown nature of the cemetery and thick leaf litter, it is likely that additional graves are present that were not recorded. The owner plans to clean up the cemetery, which will allow for the mapping of additional grave locations in the future.

Today the hill is covered in trees and dense undergrowth, but it was used as a cemetery for the Ida Bell Church in the 1900s up until the 1950s. The hill's life as a sanctuary for the dead began even earlier, with an unknown number of burials possibly associated with early European frontier people or enslaved and newly freed people from the 19th century. Thus, the individuals interred on this hill represent some of the earliest settlers in the area as well as members of the local African American community who lived during the time of slavery, Reconstruction, the Jim Crow era, and Integration.

At least eight of the people interred at Ida Bell were born before emancipation and likely were enslaved for part of their life. The cemetery includes one Union Confederate veteran and one veteran of World War I. Gravestones also indicate that many of the members of the African American community near Palarm were members of a mutual aid society. The societies represented at Ida Bell include local chapters of the Mosaic Templars of America (MTA) and the International Order of Twelve Knights and Daughters of Tabor (Mayflower Tab No.223 and the Silver Moon Tab. No.232, Little Rock, Arkansas). MTA chapters represented include the Lilly White Chamber- 881 and Hayes Temple- 1327. Also represented is a member of the Union Olive Temple No. 177, Palarm, Arkansas. Mutual aid societies such as these provided members with illness, death, and burial insurance at a time when insurance companies refused to insure African Americans.

Beahm created an ArcGIS Online interactive map to display grave locations and photographs of gravestones and transcriptions of epitaphs when present. This will allow interested members of the public to virtually visit the cemetery if they are not able to visit it in person. A StoryMap is forthcoming which will touch on what can be learned from this significant site

Heber Springs

The Heber Springs mound site (3CE68) was first recorded in the Arkansas Archeological Survey site files in December 1978 by former ARAS archaeologist Robert Ray. At that time, the site was described as a low mound of dark midden soil. Ray was contacted by the landowner and informed that there was a good possibility that the mound would be destroyed as he had plans to sell the soybean field, where the site and mound were located, for development. Recognizing the significance of this archaeological site and the



Example of charred hickory nut identified from Heber Springs.

major potential loss of information if this site was destroyed, Ray initiated a research project to mitigate the effects of this upcoming site destruction.

Unfortunately, Robert Ray never fulfilled his research goals or wrote a report of the excavation at the Heber Springs site (3CE68). The cultural material and records from this work are located at the ARAS-WRI station. Along with Robert Scott (ARAS-UAPB), Beahm has been analyzing the material with the aim of fulfilling Ray's research goals and producing a report that will add to our current understanding of the communities living in the Little Red River Valley. This understanding is heavily dependent on a secure understanding of the timing that this shell mound midden was created.

Beahm received an Archeological Research Fund Grant from the Arkansas Archeological Society to fund ethnobotanical analysis and two radiometric dates from the site. The results of these analyses will be published in *Field Notes*.

Teaching Gardens

The WRI Teaching Gardens continue to grow. New signs were created for the Eastern Agricultural Complex garden and the Three Sisters Garden. The Eastern Agricultural Complex Garden largely re-seeds itself, but requires a substantial amount of weeding to keep it under control. The "Three Sisters Garden" of corn, beans, and squash was planted in May and is doing well. Protective measures taken to keep groundhogs from destroying the squash seem to have been successful.

The ARAS Teaching Gardens at WRI, Toltec, and Parkin research stations are going to be enhanced by the addition of linkable webpages for the main plants in the gardens. These pages will be accessible in the gardens through QR codes. The pages will be part of the Survey's "Gathering, Gardening, and Agriculture (GGA)" website that features the 5th grade curriculum published in 2017.

Emily Beahm has been collaborating with State Archaeologist Mel Zabecki, Michelle Rathgaber (ARAS Educational Outreach Coordinator), and education specialist Aaron Buchanan, to revise the GGA 5th grade curriculum. The second edition will incorporate teachers' comments and experiences in using the original curriculum.



Some of the plants in the WRI Teaching Gardens: (left) goosfoot in the Eastern Agricultural Complex Garden; (middle) corn and squash in the Three Sisters Garden; (right) little barley in the Eastern Agricultural Complex Garden.

Safe Field Schools

Beahm continues to work with Carol Colaninno-Meeks (Southern Illinois University, Edwardsville), Carl Drexler (ARAS-SAU), and Shawn Lambert (Mississippi State University) on the NSF-funded project entitled "Evidence-based Transformation of Undergraduate Field Schools to Promote Safety and Inclusivity among Southeastern Archaeology". The overall goal of this research is to determine what field directors are doing, or not doing, to create a field school environment free of sexual harassment, assault, and violence, determine if these practices are or are not working, and develop evidence-based recommendations and best practices for creating field schools that are safe, inclusive, and free of harassment, assault, and violence for all students regardless of racial identity, gender identity, or sexual orientation. This research will be undertaken in three phases over the course of three years. The second phase of this research has involved interviewing field school directors before and after they run their field schools, sending pre- and post- questionnaires to field school students, and post- field school interviews with the students. The team also wrote a paper that is currently under review on the results of the analysis of field school syllabi.

Re-Centering Southeastern Archaeology: An Equitability Project

Beahm collaborated with a group of scholars in southeastern archaeology to create a resource for teachers, students, and researchers to find publications by and about traditionally underrepresented groups in archaeological research (namely women, individuals who are Black, Indigenous, or other people of color, and lesbian, gay, bisexual, transgender, and queer). They created a living bibliography in Zotero, with additional resources housed at this website: <https://reseac.hcommons.org>.

The Resources Page of the Re-Centering Southeastern Archaeology website houses links to additional resources that includes collections for further reading, teaching resources, video resources, organizations, scholarships, fellowships, and grants. The Southeast Archaeology Field School Map Tool was created to aid the creation of partnerships between archaeologists and Historically Black Colleges and Universities (HBCUs). This map tool shows the locations of HBCUs and archaeology programs with field schools located in the Southeast, and is designed to encourage and facilitate collaboration.

ARAS-WRI Awards, Service & Outreach

Grants, Honors & Awards

- Arkansas Archeological Society Archaeological Research Fund Award (\$1800) for “Heber Springs Mound (3CE68) Legacy Collection: Analysis of a Shell Midden Mound in Cleburne County” to support paleoethnobotanical analysis and 2 AMS dates.

Teaching & Higher Ed

- Beahm supervised Owen Knox, an undergraduate intern from the University of Arkansas, Fayetteville, May–July 2021.

Service to Host Institution

- Maintenance of WRI Teaching Gardens.

Records & Collections

- Porter continued to inventory existing collections at the ARAS-WRI station.
- Beahm began entering station collection data into FileMaker database.

Professional Service

- **Professional Organizations.** Beahm serves as SEAC Newsletter editor and is a member of the State Review Board for the National Register of Historic Places. Beahm chairs the planning committee for the 2022 Southeastern Archaeological Conference annual meeting to be hosted by ARAS in Little Rock.
- **ARAS Committees.** Beahm served on the Publications Committee, the Hester A. Davis Memorial Fund Committee, ARAS Director Search Committee, and ARAS Editor Search Committee.
- **Editorships & Peer Review.** Beahm served as editor of the SEAC Newsletter and reviewed manuscripts for *American Anthropologist*.

Public Service & Outreach

- **Programs & Presentations.** Beahm gave a virtual talk, “Foodways in Arkansas before European Contact,” for the Shiloh Museum’s 1st Annual Native American Day on November 20, 2020. Beahm gave an invited lecture for the Workshop: “Anthropology Field Research and Diversity & Inclusion: Perspectives in Archaeology, Biological Anthropology, and Cultural Anthropology,” March 29th, 2021.
- **K–12.** Beahm gave a presentation for the Camp Trinity Home School Series- Archaeology Day on May 13, 2021 (audience 25).
- **Cemeteries.** Beahm mapped the Ida Bell Cemetery (3FA162) and created an ArcGIS Online interactive map that includes photos of each gravestone and transcription of those that have writing for the historic African American cemetery. Beahm also consulted with a teacher and students from Bee Branch Schools on a project to clear and map the Solomon Grove Cemetery (3FA287). Beahm visited the cemetery in November and assisted the teacher in creating a project description.

- **Consultations.** Beahm answered various calls from the public, visited historic cemeteries, viewed a private collection, and identified artifacts.
- **Media Outreach.** Beahm contributed to the ARAS “Artifact of the Month” web series: “Basketry Impressed Base Sherd from Heber Springs,” by Emily Beahm for March 2021.

Service to Arkansas Archeological Society

- Beahm contributed two articles to *Field Notes*: “Interpreting Imaginary Cultures: The Project Dig Program” in *Field Notes, Newsletter of the Arkansas Archeological Society* Vol. 415 (July/August) and “Mount Nebo: Archeology of a Resort Town” in *Field Notes, Newsletter of the Arkansas Archeological Society* Vol. 416 (September/October) (See Appendix 1).

Volunteer Hours

- Volunteers did not work at the ARAS-WRI station during 2020–2021 due to the Covid-19 pandemic.

Jessica Kowalski (ARAS-UAF) and UAF graduate student Seth Price gathering photogrammetry data that will be used in the Survey’s redesigned rock art website.





The ARAS-ASU research station is located on the Arkansas State University campus in Jonesboro, where the station archaeologist teaches in the Department of English, Philosophy, and World Languages. The ASU research station territory includes 17 counties of northeastern Arkansas. American Indian cultural development from 12,000 BC to historic times and early Euroamerican settlements are represented in the archaeological 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 12,000 years ago between the Ice Age (Pleistocene) and modern (Holocene) climatic regimes. Geographically, the ARAS-ASU station territory incorporates the eastern border of the Ozark Plateau and the vast lowland areas of the Mississippi River basin and its tributaries. It thus provides ideal natural laboratories for the study of diverse adaptations in Arkansas prehistory.

Juliet Morrow (PhD, Washington University in St. Louis, 1996) is the Survey's Research Station Archaeologist for ASU/Jonesboro, and Research Professor of Anthropology for the Department of Anthropology, University of Arkansas Fayetteville. She came to the Survey in 1997, from a position with the Office of the State Archaeologist of Iowa's Highway Archeology Program, and had worked for various private research firms and the US Army Corps of Engineers. Morrow's background in earth sciences provides expertise in geoarchaeology, geomorphology, and site formation processes. Much of her archaeological research has focused on the Paleoindian period and multidisciplinary studies of hunter-gatherer lifeways, stone tool technology, and Pleistocene/Early Holocene ecology.

Sarah Stuckey (BS in Physics, Arkansas State University, 2013) has been ARAS-ASU Station Assistant since January 2014. She had worked as a volunteer at the ASU station for several years prior. Her senior 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 in the midcontinent.

Above, The Brewer family cemetery (3JA726) relocation project excavation team (left to right): Shawn Brewer, Leman Brewer, Ryan Brewer, Freman Brewer, Drew Brewer, John Riggs, and Cherie Riggs

ARAS-ASU Research Station Activities

Ozarks Paleoindian Database

The Ozarks cover approximately 50,000 square miles distinguished by flat-topped summits, steep forested valleys, and numerous karstic features like streams, springs, caves and rock shelters, sinks, cedar glades, and natural bridges. The dominant rocks are limestone and dolomite bedrock that host a wide variety of chert types, occurring as nodules and beds in bedrock exposures, residuum, and as secondary deposits in stream beds.

The highest elevations in the region are in the Boston Mountains of Arkansas, where extensive uplands reach to heights of more than 2,000 ft (610 m). A few summit areas in extreme western Newton County exceed 2,500 ft (726 m). The variegated landforms and relief are the result of many factors, including differential resistance to weathering and erosion of two adjoining rock masses, the structural tilt of the rock layers, the porosity of the rocks, and stream erosion. The St. Francois Mountains lie in the eastern Ozarks, south of St. Louis, Missouri. Knobs of granite and siliceous volcanic rock flows are continuously revealed by weathering and erosion.

Rhyolites of the St. Francois Mountains were used predominantly in the Late Archaic, but their earliest recorded use is by Clovis people at the Martens site in St. Louis County. One Clovis point from southeast Missouri in the ARAS collections may be made of rhyolite, most likely from the St. Francois Mountains of east-central Missouri. Large Clovis sites are situated at the edges of the Ozarks and beyond, but a major Clovis camp has not yet been verified and reported for the Ozarks region. Despite the low visibility of sites in the interior, there are Clovis, Gainey, and Dalton points recorded in the interior river basins and uplands.

The diversity of fluted and non-fluted Paleoindian point types in Arkansas indicates it is the crossroads between the southeast and southwest and between the Deep South and the Midwest. From a geographic perspective, the state is ideally suited to study the sources of morphometric variation and Paleoindian land-use.

In January 2018, the ARAS-ASU research station began generating comparable morphometric data and lithic material identifications on Dalton artifacts from ARAS and private collections. We expanded the Arkansas Paleoindian Database into the Ozarks Paleoindian Database to model the tempo of changing point styles and Paleoindian use of the landscape over a broader area. We have continued recording attribute data on points. Twenty-four years working with private and institutional collections give us the impression that Dalton point frequencies exceed the total number of combined Paleoindian point types (Clovis, Gainey, Pelican, etc.) by at least 1000x in Arkansas.

Focusing on the entire Ozark Mountains region necessitates cooperation with the adjacent states of Illinois, Missouri, Kansas, and Oklahoma. ARAS-ASU gained access to Paleoindian site records for Missouri and Illinois in 2019 and 2020 so we could attribute site provenience to data and vice versa. More recently, Dr. Jesse Ballenger provided us with hundreds of Dalton points from counties in the Oklahoma Ozarks and these are now in the Ozarks Paleoindian Database.

At a continental scale, the Ozarks is a major lithic supply zone that contains thousands of square km of ecotonal habitat. Data suggest that the reservoir for Paleoindian variation is in the midcontinent, an area that is also the hearth of the earliest plant domestication in North America. So far there are over 1,000 fluted points (including Clovis, Gainey and Dalton) and other Paleoindian era tools in the Ozarks Database, and it is growing every year. This fiscal year, Morrow recorded a collection of six Paleoindian points from the One Farm in west-central Illinois for the Ozarks project and Stuckey photographed them.



Six Clovis points from the One Farm in Illinois.

Dallas Road Cemetery (3MS965)

Ms. Holly Rice called Morrow in June for help with an unmarked cemetery on the Eaker Airforce Base, now owned by the City of Blytheville and called the Aeroplex. Ms. Rice grew up on the airbase where her father was stationed in the military. Morrow met with Rice and her father to document the cemetery as an archeological site. Several irregular foot-deep holes were observed within an area that contained additional depressions that appeared to be burials. No human

remains were observed within the holes, probably because they were weathered away. Pieces of wood were observed around the edges of the open holes that appear to be graves. The area was dry, in grass with little ground surface visibility. The site area was being mowed and may have accelerated damage to the graves. The only evidence of a gravestone was a small, yellow brick-sized stone with the name Green. Depressions which appeared to be coffin burials are located within a 100 m x 40 m area, between two concrete building foundation remnants. There are a minimum of 10 depressions. The Mississippi coroner was contacted once the cemetery was verified and a copy of the site form was submitted to him.

Mt. Olive Baptist church and Cemetery/New Bedford Cemetery (3WH688), White County

During the winter of 2021, Mrs. Carol McCray inquired about preservation for a historic cemetery on the National Register of Historic Places due to the association of an important event in Arkansas history. Mount Olive-Bedford Chapel Cemetery is located near Rosebud, Arkansas, northeast of Mount Vernon on Manning Road. The cemetery was founded in the 1880s and was listed on the National Register of Historic Places in 2019. It is about 2 acres in size (0.8 hectares) and contains the nineteenth century graves of Amanda Holland, Alfred Bedford, Samuel Alexander, Jeff Stapler, and Fanny Clements, and William Nix are among the earliest in the cemetery, dating back to 1854, 1860, 1865, 1862, 1863, and 1870 respectively. <https://www.findagrave.com/cemetery/2474931/memorial-search?page=1#sr-101403268>.

The significance of this cemetery lies in the fact that it is the only surviving remnant of an African American community called "The Colony". An estimated 86 burials are known and of those, 58 are marked in some way by a combination of head and/or foot stones. Additional burials are suspected. The property includes the Mount Olive Baptist Church, a small wooden building dating to the community's founding.

The Colony was established in the years after the American Civil War, when Arkansas experienced an influx of former slaves migrating north from states in the Deep South in search of better land and working opportunities. It included former slaves of the DuPriest family's extensive plantation. In the 1930s, the Colony had an estimated population of more than 200, however, the community declined in the following decades, as later generations left for better opportunities. In the 1970s, descendants began to have bi-annual reunions or homecomings at Mt. Olive/Bedford Chapel.

Morrow advised and assisted Carol McCray to obtain funding to search for graves and rehabilitate the cemetery. During the winter of 2021 Morrow met virtually with representatives from the Department of Arkansas Heritage (DAH), Mrs. McCray, and other members of the cemetery preservation group about how to navigate the funding process and preserve the entire cemetery. The ASU-Jonesboro research station agreed to map the cemetery as part of Mrs. McCray's grant proposal due in November 2021.



Incised sherd from Greenbrier.

Greenbrier (3IN1), Independence County

Greenbrier is a Late Mississippian village site with an occupation during the fifteenth to seventeenth centuries. It is one of numerous Late Mississippian period sites in the Middle White River Basin that are grouped into the Greenbrier phase. According to Dan and Phyllis Morse, Greenbrier phase sites are small to large rectangular villages typically without mounds. Ceramic vessels and lithic tools are similar to those of the nearby Parkin phase. A ceramic human effigy vessel, shell masks, gorgets, and copper artifacts are reported from the Greenbrier site. The 1999 and 2000 Training Programs of the Arkansas Archeological Survey and Society took place at Greenbrier, during which a burned domestic structure about 6 m² was partially excavated. Attribute analysis of approximately 8,540 ceramic sherds from these excavations is now complete. Morrow has worked with the landowners since 1998 to protect, preserve, and study the site as it is one of the most significant sites in Arkansas.

3IN1 Geophysical Survey

Fieldwork from December 2020 to April 2021 determined the size and shape of the house at 3IN1 and identified more than 75 additional structures. With the help of Jami Lockhart (ARAS-CSP), Arkansas State University students and local volunteers helped complete the work necessary for the completion of gradiometry in

March and April, just ahead of the spring crop schedule.

Using INAA and Petrography to Identify the Source of Clay

Funding from the Arkansas Archeological Society's Archeological Research Fund helped us conduct a second round of INAA (Instrumental Neutron Activation Analysis) in 2004 which expanded and largely supported the results of the first round. INAA identifies the chemical composition of minerals in clay, which can be matched to a geographic source. We now have a better idea for the source of imported sherds at Greenbrier. Sherds placed into the Cahokia reference group suggest that there are some vessels coming into the site from the Mississippi River area. However, this last round of INAA raised new questions. The two Bell paste samples excavated from the site and placed into a local group could possibly be explained through inter-village marriage or an attempt to replicate a foreign vessel.

Morrow is working with Daniel Pierce (University of Bordeaux-Montaigne) to source the clays used to produce ceramics at Greenbrier and compare the INAA versus thin section methods for sourcing ceramic artifacts. Thin sectioning involves cutting and polishing a slice of the ceramic vessel to make a very thin tile that can be examined under a microscope. Using local geology, thin section analysis may allow us to narrow down where sherds came from or did not come from, by identifying geographically specific minerals; especially those suspected to be imports from the Cahokia group. In 2020, Pierce completed thin section preparation and some initial observations of the sample under the microscope. Thus far it appears the sherds were all made of the same materials and we may not be able to determine provenience of the clay. The raw clays look similar, but there appear to be differences at the production level. The clay is a calcitic clay with plenty of quartz, bits of iron, the occasional plagioclase, polycrystalline quartz, and muscovite. Production included adding temper of additional calcite (identified as larger bits than the natural calcite found in the clay) and grog (crushed bits of fired clay). The firing temperature appears to be between 650° and 850°C based on the cleavage and color of the calcite. Differences in ceramic vessel production are visible in the amount and size of calcite/grog. A standardized ceramic production was not noted, but the materials appear to be the same. These observations are consistent with household production involving multiple potters.

The Cummings site (3PO5)

The Cummings site (3PO5), named for plantation owner C. C. Cummings, is a 5-acre village thought to be part of the Parkin phase, a group of sites that form a hierarchy of hamlets, villages and towns in the St. Francis and Tyronza River Basin of Northeast Arkansas. The Parkin phase is a distinctive regional expression of Mississippian culture, featuring large rectangular villages with mounds and a plaza. Data from Phyllis Morse's 1981 Parkin survey suggest that tribute or tithing by smaller settlements contemporary with Parkin may have been necessary to sustain the population at the principal site, Parkin, which is about 19 acres.

In February 2020, Morrow visited several sites in the St. Francis Basin to check on their condition and teach volunteers how to survey and monitor sites. In Spring 2021, these station volunteers visited the Cummings site and took photos of ceramic sherds and a Nodena point made of unheated Pliocene upland gravel chert (PUGC), most likely from Crowley's Ridge west of the site. Pottery and stone tools collected by Kim Allen and donated to the Arkansas Archeological Survey include a variety of shell tempered ceramic jar rim, collar, and body sherds from 3PO5. Decorated rim sherds in the Allen collection show

a design called Barton Incised and most of the body sherds feature a design that used to be referred to as finger-nail impressions. The small moon-shaped incisions were likely made by a wood, cane, or bone tool. Based on design elements (punctates and incised lines), paste characteristics, and portion of the vessel, a minimum of 16 vessels are represented by the sherds in the collection. Most of the vessels represent medium to large jars ranging from 20 to 50 cm in diameter at the opening. Some of the jars are Parkin Punctated *var.* Togo and one is Barton Incised *var.* Barton. The largest jar sherd is 13.6 mm thick and has two rows of nodes near the rim. This jar was probably about 50 mm wide. Aside from jars there is a plain burnished bowl with an estimated rim diameter of 20 cm and an incised rim sherd of a thin plate which was about 20 cm wide.



Diagnostic ceramic types from 3PO5 in the Barker and Allen collections at ARAS.

Aside from the ceramic sherd assemblage, several whole ceramic vessels were procured from 3PO5 by Clarence B. Moore, an antiquarian who investigated archaeological sites throughout the southeast, including the Cummings site, in the early 1900s. After Moore, the University of Alabama conducted excavations and the site was again the subject of interest during the Lower Mississippi Valley Survey conducted between 1940 and 1947. Arkansas Archeological Survey personnel visited the site in the 1970s to verify the location and check on its condition.

Whole vessels can provide details about kinship; archaeologists can infer thought processes from analyses based on oral and written histories. Both Cummings site vessels illustrated in C.B. Moore's *Antiquities of the St. Francis, White, and Black Rivers, Arkansas* are painted red and white vessels. One is a jar and the other is a stirrup bottle. The body of the jar displays a triskele which is a common design motif among the red and white painted ceramic vessels of the Middle Mississippi period in the St. Francis Basin. The potter also painted a complete diamondback rattlesnake around the collar of the jar. Moore identified the snake as a diamondback rattlesnake (*Crotalus adamanteus*) that inhabits Florida, Alabama, Mississippi and other states south and east of Arkansas. There may have been other species of *Crotalus* living west of the Mississippi. According to Moore, three scenarios could account for the image of the diamondback rattlesnake on the jar: 1) the vessel was brought into northeast Arkansas from further south; 2) the vessel was made by someone familiar with eastern diamondback rattlers; and 3) the eastern diamondback inhabited northeast Arkansas at the time the vessel was produced. Another possibility is that the potter copied the diamondback rattlesnake motif from a ceramic vessel or other object.

The slightly asymmetrical stirrup bottle probably represents a squash or gourd with the vines forming a functional handle with which to carry the vessel. This form is ideal for carrying a liquid without spilling it and without the need for a lid. The bottle's form also suggests a connection with Middle America where these vessels date to slightly earlier. Another stirrup bottle from 3PO5 is depicted in Roy Hathcock's picture book of Native American pottery vessels from northeast Arkansas; this compound bottle with joining necks that merge into a single spout would have been challenging to make and required many more steps in the hand-built manufacturing process. This stirrup vessel with a lobed-like body with bands of brown between bands of red and white would now be classified as a "polychrome" or multiple-colored vessel.



Ceramic vessels from 3PO5, the Cummings site: (top) jar with rattlesnake motif; (bottom) polychrome stirrup bottle.

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Cherry Valley site (3CS40) pipe

Tobacco and smoking pipes have a long history of use among Native Americans and the spiritual importance of tobacco (*Nicotiana sp.*) is well documented. According to Deborah Pearsall (University of Missouri), tobacco use dates to as early as 2500 BC on the north coast of Peru; David Asch dated it to as early as AD 100-200 in the confluence region of the Illinois and Mississippi Rivers. How the plant spread from South America, where it was first cultivated, to the rest of the New World is debated but it was grown throughout the Americas by European contact. Researchers like James Brown of University of Illinois use the placement of pipes in burials, in addition to ethnohistoric and ethnographic evidence for ritual tobacco smoking with pipes, to argue for the existence of smoking cults, or a "smoking complex". Today it is widely recognized that shamans and other religious practitioners smoked tobacco historically and in the ancient past for its psychoactive properties.

The Cherry Valley Phase is based on excavations conducted by Greg Perino at 3CS40 and other sites containing similar ceramics and mounds with charnel structures and bundle burials. Although it has been interpreted as an emergent Mississippian population, Morrow thinks the "Cherry Valley" ceramic assemblage probably dates to somewhere between AD 1000 and 1200 based on the widespread influence of Cahokia across the Midwest and Southeast between AD 1000-1200; the ceramics could reflect an in situ or local cultural florescence, ancestors revisiting their homeland, and/or a cult that cuts across time, space and the regional multi-ethnic population of the Central Mississippi Valley.



Shell-tempered elbow pipe from Cherry Valley Mound site (3CS40).

Just south of Jonesboro on the west apron of the ridge, the site that gave its name to the phase consisted of five mounds known as Cherry Valley Mounds. The mounds at 3CS40 were round top mounds about four meters high and six to seven meters in diameter. In 1958, Gregory Perino excavated three of the five mounds under the auspices of the Gilcrease Museum in Tulsa, Oklahoma. Since 1997, several large village sites west of Crowley's Ridge have yielded Cherry Valley-like ceramics and one site with ceramic attributes elements reminiscent of Cherry Valley ceramic vessels.

Among these sites are Krebs Place and Bruce Catt <http://archeology.uark.edu/indiansofarkansas/index>.

Portions of both sites have been salvaged by the Arkansas Archeological Survey and each yielded large fragments of Cherry Valley shaped jars with handles. The Burris site, also salvaged by ARAS personnel as part of a pipeline project, yielded an incised plate fragment, and other Cherry Valley-like vessels. The Ralph Wayne collection curated at the ASU-Jonesboro research station also contains Cherry Valley affiliated artifacts from southeast Missouri. More recently, Morrow examined Cherry Valley vessels in the ASU Museum collections and plans to write an article about those observations.

In 2009, Steve Stricklin brought a shell-tempered ceramic elbow pipe to the ARAS-ASU research station. The pipe had been excavated in 1988 from the Cherry Valley site, 3CS40. Today, the pipe is in the Cross County Historical Society Museum in Wynne, Arkansas. When he visited the lab to show Morrow the pipe, he allowed her to take a sample of a dark-colored residue on its interior. One of Morrow's students conducted an independent study in Archaeochemistry at Arkansas State University (ASU). She used Gas Chromatography Mass Spectrometry (GC-MS) to compare a known sample of pipe tobacco to the Cherry Valley Mound pipe residue.

The modern reference tobacco was Prince Albert pipe tobacco in three states: unburned, partially burned, and fully burned. Methanol was used to draw the chemicals out of the sample. Helium was used as the mobile phase for the GC-MS. Small amounts of the residue were placed in a vial and methanol was added. The mixture sat for one hour before injecting it into the GC-MS. The GC-MS used was a Varian CP-3380 GC couple to a Saturn 2000 MS with an ion trap. The column used within the GC was a capillary column 30 mm long with an internal diameter of 0.25 mm, and a phenyl-methylpolysiloxane polymer coating 1.0 μ m thick.

The samples were run using a method created by Dr. Ellis Benjamin (ASU). The run time was 30 minutes. Sample size was increased gradually to ensure detection. The first set used 1 μ L, the second used 3 μ L, third used 5 μ L and the last used 7.5 μ L. All major peaks of the chromatographic plot produced by the ancient pipe residue sample matched the chromatographic plot produced by the fully burned sample of the modern reference sample, Prince Albert pipe tobacco. The plots produced by the unburned and partially burned samples of the modern tobacco had some matching peaks, however neither was a definitive match. The small variances between the minor peaks of the ancient sample and the modern reference sample may be due to additives in the modern pipe tobacco that would not have been present in the Cherry Valley phase tobacco. Another source of variation could be due to differences in burning methods. A match or a butane lighter is normally used for burning the modern tobacco whereas the flame source for the ancient tobacco was something other than these sources, perhaps a piece of wood. Some variances could be attributed to taphonomic factors, such as leaching of elements.

While this study did not conclusively eliminate the possibility that other plants containing alkaloids like *Nicotiana* sp. were used in the Cherry Valley Phase smoking pipe, the similarity in peaks suggest that nicotine is the plant most likely responsible for the residue. This is one of the first, if not the first, investigation that has identified direct evidence of nicotine-rich residue from a Native American pipe in Central Mississippi Valley.

Many people, including professional archaeologists, typically clean ceramic artifacts with water to study attributes related to manufacture, use, and style, or to display them in a collection. If the pipe from Cherry Valley Mounds had been cleaned, this study would not have been possible. Morrow recommends that people who are processing artifacts be mindful of preserved residues, on any artifacts, so that more research opportunities like this one are possible in the future.

Clovis points from southeast Missouri

In 1985, Dr. Carl Chapman, considered to be the father of Missouri archaeology, was aware of only two fluted points from southeast Missouri. Proximity to the toolstone source known as Crowley's Ridge (now known as the Pliocene Upland Complex Gravels or PUCG) and the presence of Ice Age river terraces make it likely that there are many more fluted point sites in the region known as the bootheel of Missouri. Over 100 fluted points were known from Missouri counties where chert-bearing limestone of the Burlington and Jefferson City formations outcrop. Chapman noted that manufacturing techniques could provide important clues to distinguish technological-cultural-ethnic groupings - what Paleoindian specialists call "complexes." Given the large amount of data now available, one can see these complexes beginning to unfold in the Paleoindian literature.

Between 1997–2007, Morrow recorded surface-collected Clovis points from Dunklin County in southeast Missouri, brought to the ARAS-ASU lab by avocational archaeologist Ralph Wayne. Wayne beat the bushes so to speak to bring points to the lab at ASU from private and institutional collections. As part of the Ozarks Paleoindian Database project, Morrow conducted research on these and other southeast Missouri fluted points with help from Candace Sall at the University of Missouri Museum and wrote a manuscript about early Paleoindian period points from Southeast Missouri. Given the location of the research, the manuscript will be sent to both the Arkansas Archeological Society and Missouri Archeological Society.



Clovis points from Dunklin County, Missouri.

ARAS-ASU Awards, Service & Outreach

Teaching & Higher Ed

- Morrow taught ANTH 3203, Introduction to Archaeology (9 students) and ANTH 2302, Introduction to Cultural Anthropology (5 students) during the 2020-2021 academic year for ASU Department of English, Philosophy, and World Languages.
- Morrow supervised student intern Bobby Perry and volunteer Louis Intres; Stuckey supervised ASU student Dalton Holder.

Records & Collections

- ARAS-ASU staff prepared site forms, supervised loans and transfers, accessioned donations, and inventoried artifacts.
- Stuckey digitized photos and slides from 31N1 and other projects, and assisted with accessions and donations.
- 74 new sites were recorded in 13 of our 17 counties. Revisits included 31N1, 3WH76, 3PO8/32/3PO213, 3MS2, 3CY91.
- ARAS-ASU had 5 donations, 7 transfers between the station and the CO, and assigned 18 new accession numbers.
- ASU student Bobby Perry created a database for the Sullivan Collection that contains all images and data, including color photos taken by station volunteer Erik Kriner, former State Archeologist Ann Early's photos, and ceramic vessel form types, with the ASU research station's original inventory.

Professional Service

- **Editorships & Peer Review.** Morrow read and commented on a manuscript for a colleague and wrote a review for the journal *PaleoAmerica*.
- **ARAS Committees.** Morrow chaired the Publications Committee from August-December 2020.

Public Service & Outreach

- **Programs & Presentations.** Morrow gave presentations to the Loveland Stone Age Fair at the Powars II site, Platte County, Wyoming (audience 100), the Spring River Gem and Mineral society in Cherokee Village, Arkansas (25), and the Memphis Archaeological and Geological Society (25).
- **Cemeteries.** ARAS-SAU staff answered queries regarding historic cemeteries and added several new historic cemeteries in northeast Arkansas. ARAS-SAU assisted the Brewer family in relocating their family cemetery (3JA726), southwest of Grubbs, Arkansas, and documented all associated funerary remains. At the request of Samuel Ownbey, Stuckey recorded a cemetery in Mississippi County (3CT540). ARAS-SAU provided Michael Dougan (ASU emeritus professor) with information about Macedonia cemetery.
- **Consultations.** Morrow documented a looting incident at a wildlife management area near Bradford, White County and recorded a new site for the Arkansas Game and Fish Commission. ARAS-ASU staff recorded sites on properties at the request of landowners in Independence County and Randolph County. Morrow consulted with the Quapaw Tribe of Oklahoma concerning multiple sites in Northeast Arkansas. At the request of a descendant, ARAS-ASU staff visited a previously recorded burial mound site in Craighead County and made a video. Morrow assisted Roy Echols and the city of Cherokee Village with a project to help create a new Nature Trail for which matching funds from the Arkansas Department of Transportation were available. ARAS-ASU provided Everett Bandy (Quapaw Nation Historic Preservation Program Officer) with landowner contact information for 3CT43. Morrow gave an interview to Kara Struckman from the National Parks Conservation Association regarding African American cemeteries. Morrow met with Dr. Sharon Pittser and Terri Crawford at the Old Independence Regional Museum and brought ceramic vessels from the 31N1 house excavation back to the ARAS-ASU station. Morrow consulted with Gina Hogue, chair of ASU Humanities and Social Sciences about Bay Mounds. ARAS-ASU staff consulted with the landowner of the Bruce Catt site (3CY91) and with the support of the AAS-CMV chapter and Chet Walker (Archaeo-Geophysical Associates), conducted remote sensing of the village prior to it being levelled. Morrow worked with the landowner of Webb Mounds (3CG29) to protect the site and have it listed with the National Register of Historic Places. ARAS-ASU staff consulted with citizens about sites on their property and/or artifact collections and responded to additional queries about artifact identifications, rocks, and sites in other states.
- **Media Outreach.** The ARAS-ASU station maintains three Facebook pages (NE Arkansas Cemetery Research, Central Mississippi Valley Chapter of the Arkansas Archeological Society, and ARAS-ASU Research Station) and one website. Visits on the Facebook pages totaled 1300+.

Service to the Arkansas Archeological Society

- **Programs & Presentations.** Morrow published an article in the AAS *Field Notes*. Sarah Stuckey gave a presentation to the Ouachita Chapter of the AAS (audience 5 people).
- **Central Mississippi Valley Chapter.** The ARAS-ASU station assists the CMV Chapter. Morrow arranged guest speakers for the monthly Zoom meetings.

Volunteer Hours

- Students, chapter members, and other volunteers contributed 398 hours to station projects during 2020–2021.



Carrie V. Wilson, NAGPRA coordinator for the Quapaw Tribe, and Juliet Morrow conducting research on ceramic vessels at the Gilcrease Museum in Tulsa, Oklahoma.



Henderson State University Research Station, Arkadelphia

The ARAS-HSU research station is located on the campus of Henderson State University in Arkadelphia, where the station archaeologist teaches anthropology courses in the Department of Sociology, Human Services/Social Work, and Criminal Justice. The station territory covers nine counties of south-western 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 nineteenth century as “Arkansas whetstone,” and also quarried for toolmaking and trade by American Indians before contact, 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 archaeological sites.

Mary Beth Trubitt (PhD, Northwestern University, 1996) is the Survey’s Research Station Archaeologist at HSU, and Research Professor of Anthropology for the Department of Anthropology, University of Arkansas Fayetteville. She joined the Survey in 2000 and has focused her research on craft production and exchange, from chipped stone tools made from Arkansas Novaculite in the Archaic period to ceramics production and regional interaction during the Caddo period. Her latest book, *Ouachita Mountains Archeology: Researching the Past with Two Projects in Arkansas*, was published in the Survey’s Popular Series in 2019.

Tommie N. Cotton (MSc, University of Edinburgh, 2016) was hired as the ARAS-HSU research station archaeological assistant in late September 2019. She is an Arkansas native with cultural resource management experience in Arkansas, Oklahoma, Texas, and Illinois. She got her start in anthropology with a BA from Lyon College in Batesville, which allowed her to pursue field schools in Bulgaria and Spain. She has been diving into all that Arkansas archaeology has to offer.

Jami Lockhart conducts a gradiometry survey at 3HS22 in June 2021 to identify potential architectural features within and around the mound at this Caddo period site.

ARAS-HSU Research Station Activities

Increasing Access to the Joint Educational Consortium's Hodges Collection

As the Joint Educational Consortium (JEC), Henderson State University (HSU) and Ouachita Baptist University (OBU), own a significant collection of Native American artifacts amassed in the 1930s and 1940s by Thomas and Charlotte Hodges. The Hodges collection of more than 38,000 objects includes ceramic vessels and stone tools from Caddo sites in the Ouachita River valley in Clark and Hot Spring counties. Since the JEC acquired this historical collection in 1977, it has been curated by the ARAS-HSU research station. With grants from the Arkansas Natural and Cultural Resources Council, HSU rehabilitated the historic Caddo Center building on campus as a consolidated center for student services, with space for permanently exhibiting Hodges Collection artifacts and interpreting local Caddo Indian history. ARAS-HSU staff, assisted by HSU students and Arkansas Archeological Society (AAS) volunteers, moved the JEC Hodges Collection to open curation in the renovated Caddo Center in 2019.

In fall 2020, Mary Beth Trubitt completed work on an interpretation project funded in part by the Arkansas Humanities Council and the AAS Bill Jordan Public Education Fund. Trubitt discussed the Hodges Collection and its interpretation with Jim Borsig (HSU Interim Chancellor), Ben Sells (OBU President and JEC Chair), Tamara Francis (Caddo Chairman and Tribal Historic Preservation Officer), Everett Bandy (Quapaw Tribal Historic Preservation Officer), and Carrie Wilson (Quapaw Native American Graves Protection and Repatriation Act Coordinator). The Caddo Center reopened to the campus and local communities in October. Using an audience questionnaire, Trubitt collected visitor reactions for project evaluation. The final product included three panels of wall text and graphics, three brochures, a new website ("Interpreting the Hodges Collection at the Henderson State University Caddo Center"), and seven signs programmed with near-field communications (NFC) codes linking to short videos and 3D models on the website, viewable on personal smartphones and on a touchscreen monitor in the hall. Developed with Deborah Weddle (ARAS-CSP) and humanities scholars Judith Stewart-Abernathy and Tamara Francis, the website was launched in December. Trubitt and Shavawn Smith (ARAS-CO) prepared and submitted a final report to the Arkansas Humanities Council, and Trubitt wrote a short piece on the project for publication in *Field Notes*. Cotton organized digital photographs of documented JEC Hodges Collection ceramic vessels.

Funding from the ARAS Hester Davis Fund supported photography equipment and a paid internship to continue interpretation of the JEC Hodges Collection. In spring 2021, HSU student Christine Bostian interned at the ARAS-HSU research station. Her work at the Caddo Center was integral to her minor in Museum Studies. Trubitt and Bostian developed new content for the "Interpreting the Hodges Collection at the Henderson State University Caddo Center" website, adding additional pages with short videos and 3D models. Bostian also gave tours of the Caddo Center to visitors.



Interpretation of the Joint Educational Consortium's Hodges Collection at the Henderson State University Caddo Center included development of a new website.

Ancient Caddo Lifeways in the Saline and Ouachita River Valleys

ARAS-HSU staff incorporate analyses of curated collections with new field projects to investigate communities of practice, social identity, community patterning, and regional interactions across the Caddo Area. Trubitt completed a book manuscript reporting results of excavations at Hughes (3SA11) and Hedges (3HS60), two contemporaneous mound sites in the Saline and Ouachita River valleys. The book, *Two Caddo Mound Sites in Arkansas* (RS70), was published in the ARAS Research Series in Fall 2021.

Working with Jami Lockhart (ARAS-CSP) and Vanessa Hanvey (Kentucky Heritage Council), Trubitt completed analyses and wrote a manuscript summarizing results from a previous mapping, archaeogeophysical surveying, and test excavation project at 3DA673, a Caddo mound site in Dallas County. The resulting article was published in *Caddo Arche-*

ology Journal. Trubitt's short piece on ear spoons from the Standridge site (3MN53) appeared in the "Artifact of the Month" series on the ARAS website. Trubitt has resumed work on the final report/monograph summarizing results of 2013-2014 Training Program excavations with the AAS and the Ouachita National Forest at the Dragover site (3MN298).

Tommie N. Cotton completed analyses of bone, ceramic, and stone tools excavated from the Amos site (3MN62) during the 1976 ARAS and AAS Training Program. With a grant from the AAS Archaeological Research Fund, Cotton identified a suitable charred corn kernel from one of the site's features, submitted it to Beta Analytic, Inc., and obtained an accelerator mass spectrometry (AMS) date. Cotton and Trubitt co-authored a short article reporting the results of the "Dating Amos (3MN62), 1976 and 2020" grant, and submitted the manuscript to *Field Notes* for future publication. Cotton digitized project maps and continued to research and write a manuscript on project results for publication as a journal article.

Following a field visit to record a new archaeological site on a family farm in Hot Spring County, Trubitt researched a mound (3HS22) that had been partially leveled several decades ago. In consultation with the landowner and the Caddo Nation of Oklahoma, Trubitt and Lockhart (ARAS-CSP) developed a research proposal for a new program of mapping and archaeogeophysical surveying to document the extent of the site and its spatial patterning. In June, they spent several field days mapping and collecting gradiometry data and have identified potential architectural features still preserved in and under the mound. Results will be presented at upcoming conferences.



Mary Beth Trubitt using the station's new Trimble R2 and iPad to record locational data during a revisit to site 3HS22 in June 2021.

Station Collections and Records: Archiving Our History

The ARAS-HSU staff continue to document and archive curated collections of artifacts, maps and paper records, photographs, and electronic files. Using the new iPad and Filemaker software, Cotton and Trubitt resumed the ARAS-HSU research station's collections inventory. Cotton scanned archival copies of station paperwork, including weekly reports of past station staff and Ouachita National Forest project notifications, and reorganized digital files.

One of the projects spurred by the collections inventory is a comparison and final report of excavations at the J. E. M. Barkman House (3CL450) and Magnolia Manor (3CL768), two Arkadelphia residences built just prior to the Civil War. Cotton resumed work on the Barkman House research begun by a previous assistant. She entered previous analysis data onto a spreadsheet and completed the general artifact analysis and inventory. She is currently working towards a summary publication on the project.

Investigating Tool Production and Exchange Using Arkansas Novaculite

Another major research focus of the ARAS-HSU research station has been understanding the acquisition, production, and distribution of novaculite, an important toolstone that was quarried from mountain ridges in the Ouachita Mountains over thousands of years. Trubitt regularly updated the "Arkansas Novaculite" website source/distribution database with information submitted by colleagues and the public on novaculite artifacts found in and beyond the quarry zone. She also answered questions from the public about this resource and its significance and discussed archaeological sites and artifact collections with archaeologists and agency officials from the US Forest Service, Entergy Arkansas, and cultural resource management companies. Juliet Morrow (ARAS-ASU) and Trubitt co-authored a short piece on novaculite use in Arkansas for the Memphis Archaeological and Geological Society's newsletter.

Mississippian Societies in the Midwest and Southeast

Trubitt's chapter on Spiro arrow points was published in the *Recovering Ancient Spiro: Native American Art, Ritual, and Cosmic Renewal* volume in conjunction with the Spiro exhibit at the National Cowboy & Western Heritage Museum in Oklahoma City in spring 2021. Trubitt gave a virtual talk as part of the museum's Brown Bag Lunch Series. She also visited the "Spiro and the Art of the Mississippian World" exhibit and participated in the closing celebration and book signing in May 2021.

ARAS-HSU Awards, Service & Outreach

Grants, Honors & Awards

- Cotton and Trubitt were awarded a grant from the Arkansas Archeological Society's Archeological Research Fund for "Dating Amos (3MN62), 1976 and 2020" (\$602), used to obtain an AMS date on a corn kernel from a hearth feature at the site.
- Trubitt received funding from the ARAS Hester Davis Fund (\$900) to continue work on Hodges Collection interpretation at the HSU Caddo Center ("Hodges Collection Interpretation Internship.")

Teaching & Higher Ed

- Trubitt taught two anthropology courses in the Department of Sociology, Human Services/Social Work, and Criminal Justice at HSU during Spring 2021: ANT4053/SOC4063/ANT5053, "World Cultures" (37 students) and ANT2013, "Introduction to Cultural Anthropology" (13 students).
- Trubitt and Cotton supervised HSU museum studies intern Christine Bostian in Spring 2021. Trubitt and Bostian developed new content for the Caddo Center's Hodges Collection website, adding additional pages with short videos and 3D models. Bostian also gave tours of the Caddo Center to visitors.

Service to Host Institution

- Trubitt and Cotton curate the JEC's Hodges Collection of Native American Artifacts at the HSU Caddo Center. After the Caddo Center reopened to the university and local communities in October 2020, they gave tours to a total of 140 visitors, including a tour for David Sesser's Museum Studies class in October 2020 and two "open house" dates in May 2021. In addition, the new website enables people to "virtually" visit and learn about the Hodges Collection and Caddo history.
- While the HSU Museum was closed and its collections dispersed to various entities on and off campus, a small collection remained in ARAS-HSU curation. Cotton conducted a new inventory of the objects, creating an indexed spreadsheet for better access.
- Cotton and Trubitt created and installed a series of rotating exhibits in HSU's Huie Library. "Pieces of the Past" exhibits included an engraved ceramic sherd from Standridge (3MN53) (September 2020), Arkadelphia Lumber Company tokens (October 2020 – January 2021), leather shoes from the J. E. M. Barkman House (February – May 2021), and early farming tools from the Ouachita Mountains (May – June 2021).



ARAS-HSU museum studies intern Christine Bostian gave tours of the Hodges Collection to visitors at the HSU Caddo Center.

- Trubitt and Cotton attended in-person and virtual departmental and campus-wide meetings, in addition to workshops by the Society of Black Archaeologists, Archaeological Institute of America, and Gilcrease Museum.
- Trubitt and Cotton hosted the annual meeting of the station's Board of Advisors (in person, outdoors in a park in Hot Springs) in August 2020.

Records & Collections

- Trubitt and Cotton made field visits to Clark, Dallas, Garland, and Hot Spring counties, submitting site revisit forms as well as recording three new archeological sites (3CL934, 3GA1149, 3HS720) during the year. Cotton began writing an overview of the Old 67 Rest Area (3CL934) for *Field Notes* or the ARAS website.
- Trubitt and Cotton accepted six donations of artifacts and accessioned them into the ARAS-HSU Research Station's curated collections (Accession 2020-394, 395, 2021-161, 162, 163, 164, 165, and 166).
- Cotton finished scanning photographic slides curated at the ARAS-HSU research station, updated the associated computerized indexes, and downloaded and filed digital photographs and photo logs. She organized digital photographs of documented JEC Hodges Collection ceramic vessels.
- Cotton scanned archival copies of station paperwork, including weekly reports of past station staff and Ouachita National Forest project notifications, and reorganized digital files.

Professional Service

- **ARAS Committees.** Trubitt served on the ARAS Personnel Committee and the search committee for the new Survey Director. Cotton was elected as an alternate "at large" committee member for the ARAS Hester Davis Fund committee for 2021-2022.
- **Editorships & Peer Review.** Trubitt completed her term as editor of *Southeastern Archaeology* for the Southeastern Archaeological Conference in fall 2020. Trubitt is currently editor of *Caddo Archeology Journal*. Trubitt peer reviewed a book manuscript for University Press of Florida and article manuscripts for *Illinois Archaeology*, *Advances in Archaeological Practice*, and *Journal of Undergrad Research in Anthropology* this year.

CADDO ARCHEOLOGY JOURNAL



Volume 31 of the *Caddo Archeology Journal* honored Dr. Ann Early on her 2020 retirement as State Archaeologist from the Arkansas Archeological Survey.

Ann M. Early's Contributions to Caddo Archeology



Public Service & Outreach

- **Programs & Presentations.** Trubitt taught an online seminar on technical writing for the Society for American Archaeology on December 15, 2020 (audience 60). The online seminar is now available on the SAA website (<https://www.saa.org/career-practice/online-seminars/past-seminars>). Trubitt presented, "Interpreting the Hodges Collection at the Henderson State University Caddo Center" to the Arkadelphia Sunrise Rotary Club on February 16, 2021 (audience about 15). She gave a virtual talk, "The Ouachita Connection: Novaculite Arrow Points at Spiro" as part of the National Cowboy & Western Heritage Museum's Brown Bag Lunch Series on March 18, 2021 (audience about 75). Cotton and Trubitt prepared short introductory videos for the ARAS YouTube channel (<https://www.youtube.com/c/arkansasarcheologicalsurvey/videos>).
- **K-12.** Cotton trained for the "Letters to a Pre-Scientist" program designed to inspire K-12 students to explore STEM fields. She then received and sent letters to a student.
- **Archaeology Month.** Trubitt gave a Facebook Live talk/tour of the Caddo Center and the JEC Hodges Collection for Arkansas Archaeology Month on March 5, 2021.
- **Media Outreach.** Trubitt and Cotton manage the ARAS-HSU research station's Facebook page, creating weekly "remote Archaeology Lab Day" posts with educational information about Arkansas archaeology, as well as notices about job opportunities, publications, and progress on station projects.



Mary Beth Trubitt joined several other contributors at a book signing to conclude the Spiro exhibit at the National Cowboy & Western Heritage Museum in May 2021.

- **Other Public Service.** Trubitt and Cotton advised local residents about sites, artifacts, and collections via telephone, email, and in-person meetings with over 250 contacts during the fiscal year. Cotton began research for a potential *Field Notes*/ARAS website article about “surprising” historic features, such as the Arkadelphia Arby’s sign.

Service to the Arkansas Archeological Society

- **Programs & Presentations.** Trubitt gave a presentation, “Interpreting the Hodges Collection at the Henderson State University Caddo Center,” to the Ouachita Chapter on July 14, 2020 (audience about 10).
- **Ouachita Chapter.** Trubitt serves as Vice President and Cotton serves as Secretary and Newsletter Editor for the Ouachita Chapter of the AAS. Trubitt arranged for speakers for virtual meetings held via Zoom between July and November 2020. Cotton compiled and distributed monthly Ouachita Chapter newsletters to the membership, advertised virtual meetings and talks, updated the chapter membership list, and maintained the chapter e-mail account. Trubitt and Cotton watched presentations and videos as part of the AAS virtual annual meeting in September 2020 and attended monthly AAS state-wide Zoom talks during 2021.

Volunteer Hours

- In-person Archaeology Lab Days resumed at the ARAS-HSU Research Station in June 2021. A total of 24 volunteer hours was contributed to field and lab projects this year.



Ouachita Chapter member Denise Evans catalogued artifacts from a recent donation in the ARAS-HSU Archaeology Lab in June 2021.



The ARAS-SAU research station is located on the Southern Arkansas University campus in Magnolia, where the station archaeologist teaches classes in the School of Liberal and Performing Arts. The station serves 11 counties in southwestern Arkansas, stretching from the edge of the Ouachita Mountains south to the Arkansas/Louisiana state line, and from the Ouachita River west to the Oklahoma and Texas state lines. This territory incorporates the Great Bend region of the Red River, once a major settlement area of the Caddo people. Sites in station territory include Crenshaw, the earliest known Caddo ceremonial center, Historic Washington State Park, the region's earliest American trading center, and many of the Camden Expedition battlefields from 1864.

Carl G. Drexler (PhD, The College of William and Mary, 2013) joined the Survey in 2011 and was promoted to Research Station Archaeologist in 2015. He also serves as Research Assistant Professor of Anthropology for the Department of Anthropology, University of Arkansas Fayetteville. He has previously worked for the National Park Service, Colonial Williamsburg Foundation, and US Army Engineer Research and Development Center, using his expertise in historical archaeology, conflict studies, and spatial analysis. He has field experience in Mexico, Cuba, the British Virgin Islands, and in the United States Midwest, Great Plains, Southeast, Southwest, and Mid-Atlantic regions.

Participants in the 2019 Training Program excavating units at the top of Mound A, Lockesburg Mounds.

ARAS-SAU Research Station Activities

Challenges and Change

The 2020–2021 fiscal year was dominated by the conditions of the Covid-19 pandemic, which required us to find ways to serve the people of Arkansas and to advance archaeological research in the state's southwest corner while maintaining social distancing requirements. The ARAS-SAU research station thus shifted its focus to laboratory analysis, station organization, and approaches to fieldwork that could be done in isolation, notably geophysical surveys of cemeteries. The pandemic also created teaching challenges that made serving the students at Southern Arkansas University more involved than is typical.

We record here in our annual summary our gratitude to ARAS Director George Sabo for his forty years of service to Arkansas, its archaeological community, and to the Survey. As a station archaeologist and then ARAS Director, and as a liaison with the Caddo Nation, Dr. Sabo's work has been of great significance to the archaeology of southwest Arkansas, and his guidance during the pandemic was crucial. We also thank Ms. Deborah Sabo for her work as the Survey's editor. In a time of change, we also thank Drs. Elizabeth Horton and Jodi Barnes for their work, collegiality, and friendship during their time here, and wish them luck in their future endeavors.

At the close of the fiscal year, we concluded the search process to hire a new station assistant and are pleased to bring on board Mr. Taylor Greene.

Research

During this fiscal year, the ARAS-SAU research station focused on assisting local communities with cemetery research, including mapping the Noxubee Cemetery in Columbia County, and conducting geophysical research at the Moore's Chapel cemetery in Grant County. This latter effort was connected to ongoing attempts to conduct fieldwork at the site of the Battle of Jenkin's Ferry. The spring 1864 encounter was the last major engagement of the Civil War in Arkansas. The Moore's Chapel cemetery lies on the edge of the site and is connected to the "Burning Field," where the U.S. 7th Army Corps destroyed several hundred wagons that had become a hindrance to the movement towards Little Rock. We continue to work with the Camden Expedition Scenic Byway working group, and pulling together these small pockets of information on different events connected to that story will help in that larger effort.



A panoramic view from the top of Mound A at Lockesburg Mounds, showing its commanding sweep of the surrounding river valley.

Lockesburg Mounds, a Major Caddo Mound Center in Sevier County

The ARAS-SAU research station continues to process and analyze artifacts from the 2019 Arkansas Archeological Society Training Program at Lockesburg Mounds (3SV48). Lockesburg Mounds is one of the largest Caddo sites in the Little River Region, or in southwest Arkansas. At least 12 mounds have been documented there in the past, and more may have stood before modern agriculture and relic hunting altered the landscape. During the past year, we made several trips to the site to check conditions and plan for future fieldwork. The destruction of several large trees on the summit of Mound A, the large platform mound at the center of the site, entails changing plans.

We identified imagery from the National High Altitude Photography program and applied it to the site. This was a federal effort in the 1980s that involved numerous agencies overseen by the U.S. Geological Survey with the goal of collecting high resolution, cloud-free imagery of the entire country. Many parts of the country were photographed repeatedly during that period, and we are fortunate that images of the area around Lockesburg Mounds were collected in 1980,

1981, 1984, and 1985. This corresponds with the period of major relic hunting on the site, and the work done by the backhoe used during the period can be seen in the imagery. This allows us to map areas of most intense disturbance, tie in oral histories of the digging to parts of the landscape, and identify areas that are less disturbed than others.

With the cancellation of the 2020 Training Program, we worked to organize a smaller training program in the fall of 2021; a scaled down program would give us the opportunity to introduce new members of the ARAS staff, who joined the Survey after the 2019 program, to what the Training Program involves and test some areas of the 3SV48 site that were heavily disturbed. Those plans were coming to fruition, but ultimately, the program was called off by the Society due to logistical issues.

Research into the Excavation History of Haley Place, Lafayette County

During his 1912 expedition of the Red River, Clarence B. Moore explored prominent mound sites across the region, including a place called Haley Place, in Lafayette County. Two Caddo ceramic types are named after the site, although no professional archeologists have been on the site since Moore's excavations. Following an inquiry from the public, ARAS-SAU initiated geospatial research on the site and laid the groundwork for geophysical investigations in the coming year. We also collected information about excavations done there in the 1960s and are piecing together a land use history of this important site.

ARAS-SAU Awards, Service & Outreach

Grants, Honors & Awards

- A grant from the Arkansas Archeological Society's Archeological Research Fund paid for radiocarbon dates from the Holman Springs 3SV29 (\$2,380) and Lockesburg Mounds 3SV48 (\$370) sites.
- Drexler is a principal investigator on the \$300,000 National Science Foundation multiyear grant "Evidence-based Transformation of Undergraduate Field Schools to Promote Safety and Inclusivity among Southeastern Archaeology; co-PIs are Carol Colaninno-Meeks (SIUE), Shawn Lambert (Mississippi State), Carl Drexler (ARAS-SAU), and Emily Beahm (ARAS-WRI).

Teaching & Higher Ed

- Drexler taught ANTH/SOC 1013, Introduction to Cultural Anthropology (10 students) in the Department of History, Political Science, and Geography at SAU. This is one of the courses that fulfills general education requirements for most bachelor's degrees at the university.
- Drexler taught ANTH/HIST 3143, North American Indians (19 students) at SAU. This is the sole class addressing the United States' pre-contact history and representing Indigenous culture to history and social work majors.
- Drexler gave a guest lecture on Arkansas's pre-contact history for SAU's Arkansas History class (20 students).
- Drexler served on the master's thesis committee of Rachel Jones, a graduate student in the Department of Anthropology, University of Oklahoma.
- Drexler held the title of Research Assistant Professor in the Department of Anthropology at the University of Arkansas, Fayetteville. During this fiscal year, his application for promotion was reviewed and approved, resulting in his advancement to Research Associate Professor at the close of the fiscal year.

Professional Service

- **Professional Organizations.** Drexler concluded his second term on the Board of Trustees of the Arkansas Historical Association and became the local arrangements chair for the 2022 conference, slated to be in Magnolia. Drexler chaired a session at the online conference of the Society for Historical Archaeology in January, pulling together archaeologists from the Old Southwest to discuss the pre-1840s period in the region and how we address that topic from an archaeological standpoint.

Public Service & Outreach

- **Programs and Presentations.** Drexler gave one public talk, the first face-to-face talk since the onset of the pandemic, to social clubs in Camden.
- **Consultations.** ARAS-SAU fielded 30 requests for information from the public, private companies, and government offices. These ranged from artifact identifications to site interpretations. Three of these contacts involved advising on issues pertaining to unexploded ordnance recovered from archaeological sites. Staff assisted other

stations with small projects, site visits, and other activities.

- **Media Outreach.** ARAS-ASU staff use a variety of social media accounts for outreach: Facebook, Twitter, and Instagram.

Service to the Arkansas Archeological Society

- **Red River Chapter.** ARAS-SAU assists the Red River Chapter in hosting monthly meetings, arranging programs, and providing opportunities for volunteers. Due to Covid-19, the chapter suspended in-person meetings and Society meetings were amalgamated into statewide mega-meetings. We look forward to reviving face-to-face meetings in the fall of 2021.
- **Training Program.** Drexler worked with the Society to plan the 2021 Training Program at Lockesburg Mounds. The 2021 Training Program was ultimately cancelled due to the pandemic.

Volunteer Hours

- No volunteer hours were reported for 2020–2021.



Profile trench, dug along the edge of a 1980s backhoe trench, descending the front face of Mound A at Lockesburg Mounds.



Larry Porter (ARAS-WRI) and Carl Drexler discuss a site map at Mound A, Lockesburg Mounds.



Parkin Archeological State Park Research Station

The Parkin research station was established in 1990 at Parkin Archeological State Park in Cross County. Its 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 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 AD 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 (PhD, University of Florida, 1989) is the Survey's Research Station Archaeologist for Parkin Archeological State Park, and Research Associate Professor of Anthropology for the Department 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 archaeology 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 archaeology, and the history of archeology in the Southeast. He is past President of the Society of Bead Researchers, and was recently elected to the Board of Directors of The Archaeological Conservancy.

Michelle Rathgaber (PhD, University of Arkansas, 2019) is the Station Assistant for the Parkin Archeological State Park research station. Her research focuses on vulnerability and resilience of the Late Mississippian people of northeast Arkansas and southeast Missouri to large-scale earthquakes. She studies this using various methods from ceramic and faunal analysis to settlement pattern analysis and landscape use. Her master's degree (MSc, 2011) is from Bournemouth University in the UK where she studied osteoarchaeology and bone tools in southwestern Britain. She has worked in various regions of the southeastern US for 13 years at CRM firms, as well as working for the Survey at the Blytheville station for four years before leaving to earn her doctorate. She also spent two summers excavating and doing lab analysis in Tiwanaku, Bolivia in 2005 and 2006.

ARAS-Parkin Research Station Activities

Richard's Bridge A

Richard's Bridge (3CT11) continues to be the biggest project at the Parkin Research Station. Hundreds of thousands of artifacts were excavated and partially processed by the 2015 and 2016 ARAS and Arkansas Archeological Society's Annual Training Program and still need to be fully processed, analyzed, and curated. Rathgaber and Chris Nance (AAS Volunteer) have been processing and analyzing artifacts from Richard's Bridge since 2019. They finished processing and analyzing the artifacts from Area 5, which is likely a house, but was not fully excavated during the field season, and moved on to Area 4, possibly another house. Nance was unable to volunteer from March 2020 – November 2020 due to the Covid-19 shutdown and the Parkin Archeological State Park Visitor Information Center and archaeology lab being closed to the public. In November, he was able to return following established Covid-19 precautions of temperature checks and health forms.

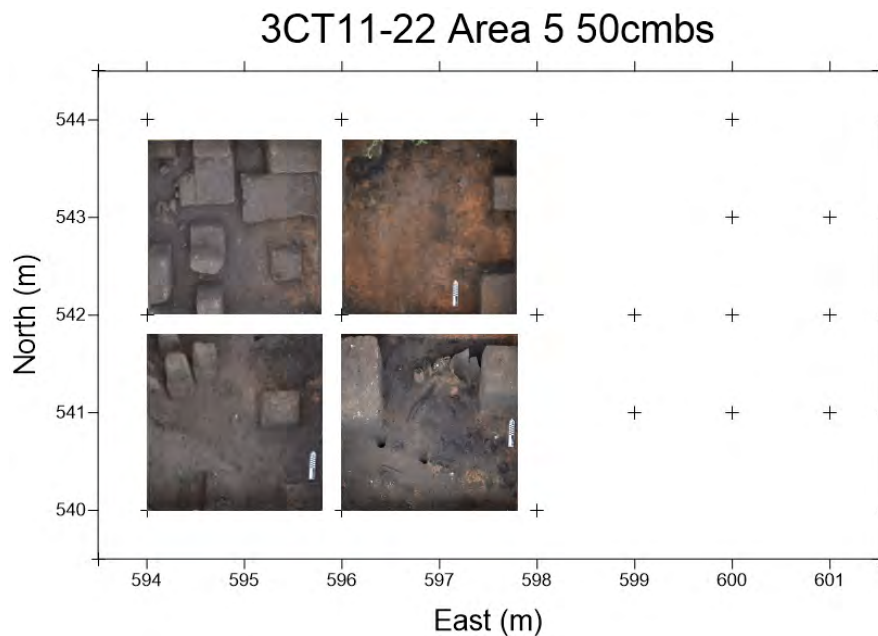
During the summer while the State Park and lab were closed to the public, Rathgaber processed 30 flotation samples taken during the Richard's Bridge excavations. She then packaged them for future specialized analysis.

Rathgaber and Nance gave a presentation about the analysis of the artifacts from Area 5 at the Arkansas Archeological Society's virtual Annual Meeting hosted on the Society's YouTube channel. Eighty-five people have viewed the presentation and it remains on the channel for additional future viewership.

Based on an artifact found during the processing of the Richard's Bridge collection, Rathgaber wrote an Artifact of the Month entry for the ARAS website about a Mississippian Mill Creek chert hoe flake and everything that this one small (<1 in) flake can tell us about the people who lived at Richard's Bridge 500 years ago.



An elbow pipe recovered from Area 5 with incised lines around both openings.



Photomosaic of Area 5 at 50 cmbs, courtesy Tim Mulvihill (ARAS-UAFS).

Photo on facing page: A view of Parkin Mound. Photo by Chuck Haralson, courtesy Arkansas Department of Parks & Tourism

International Archaeology Day

Rathgaber helped Melissa Zabecki, then ARAS Educational Outreach Coordinator, plan a virtual event for International Archaeology Day, hosted by the Archaeological Institute of America. Each ARAS employee who wanted to participate was asked to film a 5-minute video introducing themselves, how they got into archeology, and what their area of research is currently. Rathgaber uploaded the videos to the Survey's YouTube channel under the "Meet the Survey Crew!" playlist. The playlist has 16 videos and 560 views and was shared across multiple Survey social media accounts on International Archaeology Day, October 22, 2020.

ARAS-Parkin Awards, Service & Outreach

Teaching & Higher Ed

- Rathgaber worked with Chris Nance, an undergraduate student at UALR, who learned basic archaeology lab skills by processing the Richard's Bridge collections. Nance received his BA in December 2019, continued as a volunteer until the Covid-19 shutdown, and collaborated with Rathgaber on a presentation for the AAS virtual annual meeting in fall of 2020.

Service to Host Institution

- Rathgaber and Rachel Lewis (Parkin Archeological State Park interpreter) organized a photographic exhibit about the Sawdust Hill Community for the Parkin Archeological State Park for Black History Month in February. Rathgaber wrote a handout about the community based on oral histories and a report by Dr. Skip Stewart-Abernathy (ARAS-WRI, retired) and used pin flags to outline on the site where buildings previously stood.
- Rathgaber wrote a handout about the Mississippian houses on the site for Archaeology Month in March. She outlined two Mississippian houses with pin flags off of the site so that visitors could walk into the outline to better understand the size of the houses that stood on the site in the past.

Records & Collections

- Rathgaber and Nance have processed 54,213 artifacts leading to 3,855 database entries for analysis of the Richard's Bridge artifact collection. The artifacts have also been bagged, boxed, and archived according to current Survey collections guidelines.
- Rathgaber located and re-organized a photo collection of the Sawdust Hill community in the archives.

Professional Service

- **Professional Organizations.** Mitchem is on the Board of Directors of the Archaeological Conservancy. He serves on the Editorial Board of *The Florida Anthropologist*; on the Publications Committee of the Society of Bead Researchers; as Director at Large (out-of-state) of the Board of Directors of the Florida Public Archaeology Network (FPAN); and on the Advisory Board of the Alliance for Weedon Island Archaeological Research and Education (AWIARE) in St. Petersburg, Florida. Rathgaber was a Board Member of the Cross County Historical Society from October 2020 to April of 2021. Rathgaber serves on the Governor's Earthquake Advisory Council.

Arkansas Archeological Society volunteer Chris Nance rough sorting artifacts from Richard's Bridge.



- **ARAS Committees.** Rathgaber is a member of the Southeastern Archaeological Conference planning committee for Little Rock 2022 and serves on the Hester A Davis grant committee.
- **Editorships & Peer Review.** Rathgaber reviewed a manuscript for a Popular Series volume for the ARAS Publications Program.

Public Service & Outreach

- **K–12.** Rathgaber gave a virtual presentation, “Native American Dwellings,” to elementary school children through the Shiloh Museum of Ozark History’s Native American Day (audience 2,110). This included a short talk about the kinds of dwellings that Native Americans in different part of Arkansas lived in in the past, and then an interactive component where students were able to use a rope to lay out the outline of a Caddo or Mississippian house to understand its size and shape. Rathgaber presented the first part of this talk again (virtually) to gifted and talented students at Farmington Elementary school (16 students).
- **Media Outreach.** Rathgaber continued her Lab Work! video series on the Parkin Archeological Site Facebook page. She covered archaeological lab topics such as historic artifact analysis, dating nomenclature, and flotation among others. The 29 videos, 18 of which were posted in the 2020-2021 fiscal year, have 26,513 views. She also worked with Rachel Tebbetts (ARAS-Photographic and Graphic Arts) to edit the videos and transfer them to the ARAS YouTube page (<https://www.youtube.com/c/ArkansasArcheologicalSurvey>). The Lab Work playlist on YouTube has 1180 views as of June 30, 2021.

Service to the Arkansas Archeological Society

- Monthly AAS Zoom talks were advertised via the Parkin Archeological Site Facebook page.
- Rathgaber hosted a monthly “Camp Dinner” for Society members to catch up and chat. Rathgaber put together and distributed a newsletter via MailChimp to Society members about monthly virtual events and talks that were relevant to Arkansas archaeology.

Volunteer Hours

- Volunteers contributed 77 hours to station projects during 2020–2021.

Lithic artifacts from Parkin discussed in the Lab Work! video series on the Parkin Archeological Site Facebook page and later the Lab Work Videos playlist on the ARAS [YouTube channel](https://www.youtube.com/c/ArkansasArcheologicalSurvey).





Toltec Mounds Archeological State Park Research Station

The Toltec Mounds research station is located at Toltec Mounds Archeological State Park near Scott, Arkansas. The Toltec Mounds site is a National Historic Landmark. Survey staff carry out research at the site, providing information for development of interpretive programs at the park. The Toltec Mounds site, built and occupied between AD 650 and 1050, was the religious, social, and political center for people of the Plum Bayou culture of central Arkansas. It is one of the largest and most complex American Indian sites in the Mississippi Valley. A hundred years ago archaeologists 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, including the two largest (today 39 and 49 feet high), along with remnants of the embankment. Most of the mounds were square, flat-topped earthen structures built by carrying basket-loads of dirt. Several were arranged around an open plaza and aligned according to astronomical observations. Most Plum Bayou people lived in scattered villages and hamlets in the surrounding countryside, where they grew native domesticated crops, harvested nuts, hunted, and fished. They gathered at the Toltec Mounds site for religious and community activities.

Katherine Gregory (MA, Florida Atlantic University, 2006) joined the Survey as Research Station Assistant at ARAS-UAM in October 2014. In October 2016 she transferred to the Toltec Mounds research station. She earned her BA in Anthropology from Marquette University and previously worked for the Seminole Tribe of Florida Tribal Historic Preservation Office. Gregory served as Interim Research Station Archaeologist during FY2020–2021.

Threatening storm clouds over Mounds A and B.

ARAS-Toltec Research Station Activities

Seeds of Change

The end of the 2020-2021 fiscal year once again brings new staff changes for the Toltec Mounds research station. For the entire fiscal year, Gregory has worked as Interim Station Archaeologist and in August 2021 will hand over the Station Archaeologist reins to Dr. Paige Ford and resume the role of Research Station Assistant. Despite the challenges of the Covid-19 pandemic, the Toltec Mounds Research Station (TMRS) maintained a working relationship with the Toltec Mounds Archeological State Park staff and assisted in advising on specific issues – in particular the ongoing work to stabilize erosion of Mounds A and P due to years of artificially high lake levels, addressing archaeological concerns of having a private contractor mow the site, and tree removal on Mound C after a storm brought down one of the trees. While in-person public archaeology programs and volunteer work was put on hold in March of last year, Gregory provided public programming via video, and arranged on-line volunteer work aimed at improving the artifact database.

Ongoing Research

Despite Covid-19 limitations, research has continued at the Toltec Mounds research station. Gregory maintained the Plum Bayou Garden by weeding and preparing the garden for winter and collecting seeds for Dr. Elizabeth Horton so that she could continue her *Iva annua* research. The *Iva annua* Study began when Horton was Station Archaeologist at Toltec and established the Plum Bayou Garden in part for experimental cultivation of *Iva annua* (sumpweed), a “Lost Crop” of eastern North America.

Gregory also researched the previous excavations of Mound C to determine if the tree that fell was in line with the excavation units. A park visitor asked about her great-grandfather’s contributions to Arkansas archaeology. Gregory was able to provide her with articles about her great-grandfather, Dr. Thomas Hodges, and provide her with information on where his collection is displayed. Other projects at ARAS-Toltec included the analysis of the ceramics from the 2010 Summer Training Program at Toltec; Gregory conducted research for Mound Lake mitigation by reading over past correspondences and notes. Gregory also began brainstorming with Michelle Rathgaber (ARAS Educational Outreach Coordinator) about creating scavenger hunts for the two archeological state parks.

Public Archaeology Programs

Due to Covid-19 restrictions, the Toltec Mounds research station turned to digital media for public archaeology programs. Gregory participated in four virtual programs via five videos. The four virtual programs consist of Lab Day Videos, International Archaeology Day Meet the Survey Staff, Archaeology Month Facebook videos, and the Shiloh Museum of Ozark History’s Native American Day. The Lab Day video concentrated on the Plum Bayou Garden and its ongoing research. The Archaeology Month videos illustrate the differences between the Parkin Mound Site and Toltec Mounds. The first video focused on who built the mounds, while the second video focused on the purpose of the embankment wall. The video for the Shiloh Museum’s Native American Day reached 470 students at 16 different schools and included a guided site tour. Gregory made it a point to stop and talk to park visitors when she was out checking the trails. When the Visitor Center reopened to the public, Gregory made herself accessible to answer park visitors’ questions and provide artifact identifications. Gregory also provided five tours to new survey staff, an employee from Arkansas Game and Fish Commission, and to members of the public.

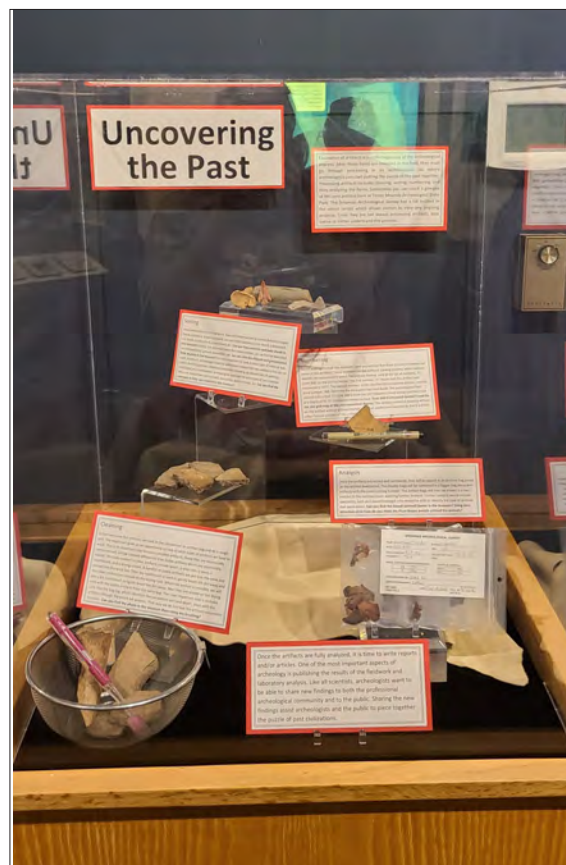


Andy Beaupré (UAPB Station Archaeologist), Katy Gregory (TMRS Interim Station Archeologist), and Melissa Ray (Park Interpreter I) temporarily fill hole that was created when a tree fell on Mound C with sterile soil.

Temporary exhibit in the Toltec Mounds Archeological State Park's museum.

Service to Toltec Mounds Archeological State Park

Collaboration between the research station and the park was made a priority this fiscal year. Service to the park included monitoring contractors, mitigating the tree fall on Mound C, and creating a temporary exhibit for the museum. Gregory continued to monitor the lake levels and provide photo documentation to monitor the impact of lake levels on the cultural resources. Gregory consulted with staff from Arkansas State Parks and the Environmental Protection Agency, as well as members of the Quapaw Nation, and the Attorney General's office. Gregory met with the EPA's survey contractor and showed them the high-water mark on Mound P, which indicates that damage is occurring on Mound P. Gregory monitored lake levels and collected any surface artifacts on Mound P and Mound A. Gregory also monitored infrastructure projects by State Parks that involved digging holes or cutting down trees on the site. Gregory collaborated with the park's interpreters on creating a new interactive temporary exhibit in the museum that highlights the steps of processing artifacts once they arrive in the lab. The exhibit encourages visitors to find examples of the different archaeological processes in the museum's permanent exhibit. Gregory and the park's interpreters also collaborated on designing a new bulletin board display by the Plum Bayou Garden that highlighted the importance of pollinators. The bulletin board display was installed in August 2021.



Records & Collections Management

The Toltec Mounds research station continued the work of bringing records and collections up to date. The records and collection management work included: continuing the creation of digital folders of field records; updating the artifacts found on the lakeshore excel spreadsheet, and beginning analysis on the 2010 AAS Summer Training Program pottery. When Covid-19 restrictions began to relax, all macrobotanical samples were returned to their respectful station. Our volunteer, Bev Watkins, continued to work remotely and finished creating a searchable excel database of the Chowning Donation DELOS records. This database allows us to have a full understanding of what artifacts are included in this extensive collection. Gregory created a multi-year excel spreadsheet for the documentation of how many artifacts have eroded out of the lakeshore on Mound A (890 artifacts), Mound F (908), and Mound P (4,303).

ARAS-Toltec Awards, Service & Outreach

Records & Collections

- Gregory maintained the Plum Bayou Garden, harvesting *Iva annua*, maypop, and common milkweed seeds for Elizabeth Horton
- Gregory scanned files, and checked that hard copy fieldwork records matched electronic files.
- ARAS-Toltec created searchable database of the Chowning Donation DELOS records.

Service to Host Institution

- Gregory monitored lake levels and erosion on the mound
- Gregory assisted park staff in mitigating the treefall on Mound C and laying geotextile down on the exposed ground.

- Gregory monitored multiple infrastructure projects for the park, including the digging of one hole along the utility easement; she checked the profiles of the other three for any evidence of archaeological resources and monitored the entrance and exit holes for boring fiber cables from the street to the Visitor Center, and monitored the removal of the Mound C trees.
- Gregory assisted park staff in picking new identifiers to replace the traffic cones marking the embankment wall, in maintaining their small garden, and edited a document

Public Service & Outreach

- **Programs & Presentations.** Gregory participated in the ARAS Archaeology Month Facebook Live event: one video was on the people who built the mounds and the second video was on the embankment wall. Gregory also contributed a Facebook lab video and an introductory video for International Archaeology Day. Gregory gave a virtual tour of Toltec Mounds Archeological State Park for the Shiloh Museum of Ozark History's Native American Day and answered questions from students and teachers (audience 470).
- **Consultations.** Gregory met with representatives of the Quapaw Nation, Arkansas State Parks, and the Arkansas Attorney General's office about the erosion on Mound A; consulted with Jennifer Sheehan of Arkansas Game and Fish Commission about native grasses that can be used on levees to help with erosion; met with Stephen O'Neal of Arkansas Game and Fish Commission Stream team about suggestions for erosion control on Mound A; consulted with Environmental Protection Agency about the high water mark on Mound P; met with Terracon, state contractors for the park, about work on the Plum Bayou Trail and locations for soil testing.
- **Other Outreach.** Gregory gave tours to park visitors (4); she also provided artifact identifications and answered queries from the public by phone, email, Zoom, and in-person (24).

Service to the Arkansas Archeological Society

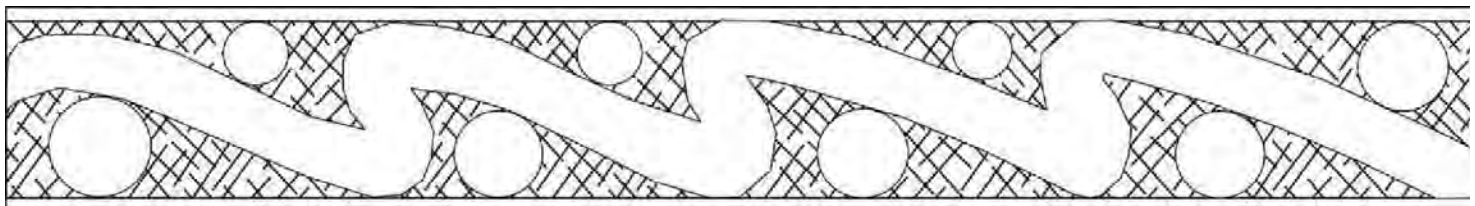
- **Central Arkansas Chapter.** Gregory met with the station's AAS Board of Advisors. She also corresponded with Dr. Lebrato of Lyons College about volunteer opportunities for his students with AAS and ARAS.

Volunteer Hours

- Volunteers contributed 84.5 hours to station projects during 2020–2021.



Coordinating Office





The Survey Director, George Sabo III, PhD

George Sabo III (PhD, Michigan State University, 1981) was appointed Director of the Arkansas Archeological Survey in 2013 after a national search. He first joined the Survey as ARAS-UAF Research Station Archaeologist in 1979. He eventually earned the title of Professor of Anthropology in the University of Arkansas, Fayetteville Fulbright College of Arts and Sciences, where he taught undergraduate and graduate level courses for more than thirty-five years, served on numerous graduate student committees, was the Department's Director of Graduate Admissions for two years, and continues to serve as Co-Director of the interdisciplinary Environmental Dynamics PhD Program. Prior to accepting the position in Arkansas, Sabo spent nine years doing archaeological research in the Upper Great Lakes and the Canadian Arctic, and held a position as assistant to the State Archaeologist of Michigan while attending graduate school. His work in northwest Arkansas has included mound excavations in the western Ozarks, the cultural landscapes and interpretation of rock art sites, studies of historic pioneer farmsteads, the ethnohistory of Arkansas Indians, especially the Caddo, environmental history, and development of interactive digital educational resources. In addition to many articles and book chapters, he is the author of the Survey's Popular Series volumes on Arkansas Indians – *Ways of the Ancestors: Ancient Indians of Arkansas* and *Paths of Our Children: Historic Indians of Arkansas*, and coauthor of *Arkansas: A Narrative History* and *Arkansas: A Concise History*, published by the University of Arkansas Press. In January 2021, Sabo announced his retirement at the end of the fiscal year, effective June 30, 2021.

Sabo's goals for the organization include supporting all staff members as they pursue the Survey's mission in their individual and collegial capacities; strengthening and developing cooperative research projects that maximize the strengths of the ARAS staff by working across research station territories and making use of cost-share agreements and collaborative research funding; an initiative to inventory, digitize, and preserve decades of ARAS records and documentation; improving our ability to serve the educational community; stabilizing job descriptions in an employee handbook; and revitalizing the ARAS publications program.

Office of the ARAS Director Activities for 2020–2021

George Sabo III retired from his position as Director of the Arkansas Archeological Survey and Professor in the University of Arkansas's Department of Anthropology at the end of June 2021. Dr. Sabo joined the Survey as station archaeologist at the ARAS-UAF research station in 1979 and became Director of the Arkansas Archeological Survey in 2013. A brief summary of Dr. Sabo's career with the Survey is available at <https://archeology.uark.edu/staff-news/george-sabo-retires/>

During his long tenure at the Survey, Dr. Sabo emphasized the Survey's three-part mission: to study archaeological sites in Arkansas; to preserve and manage archaeological information and collections; and to communicate what we learn to the people of Arkansas. Dr. Sabo worked and collaborated with colleagues across different disciplines; local, state, and federal stakeholders; and descendent communities. He also mentored numerous students in the UA Anthropology and Environmental Dynamics programs and authored several of the Survey's most popular publications on Arkansas history and culture. This year, Sabo's *Ways of the Ancestors: Ancient Indians of Arkansas* was published by the Survey in April 2021. This latest volume in the Survey's Popular Series introduces general readers to the story of Arkansas's ancient American Indian inhabitants and is a companion piece to Sabo's *Paths of Our Children: Historic Indians of Arkansas* (PS03).

In a year full of challenges and changes, Dr. Sabo led the Survey through the transition to the Workday human resource and financial management system software and guided us through the COVID pandemic of 2020–2021. Thanks to Dr. Sabo's strong guidance and leadership, the Survey has persevered and we continue working towards our mission. We will miss George and wish him a happy retirement!

Grants & Scholarly Activities

- Sabo continued as co-Principal Investigator (with Claire Terhune, Wenchao Zhou, Paul M. Gignac, and Haley D. O'Brien) during the fourth year of the "MRI: Acquisition of micro-computed tomography system for advanced imaging and inter-disciplinary multi-user access for the University of Arkansas and the US Interior Highlands" project, funded by the National Science Foundation Grant for 2017–2021 (\$687,161).
- Sabo also served as co-Principal Investigator (with Kathryn Sloan, Michael Pierce, Kim Sexton, Robert Cochran, David Fredrick, Sean Teuton, Eric Funkhouser, and Joshua Youngblood) on "Arkansas Stories of Place and Belonging" (University of Arkansas Chancellor's Discovery, Creativity, Innovation, and Collaboration Fund Grant for 2018–2020; \$88,735). Program activities included development of Oculus Quest technology for a 3D virtual reality interactive software application designed to teach about an early 15th century World Renewal Ceremony performed at the Spiro archaeological site in eastern Oklahoma that involved several Mississippian communities organized around northwest Arkansas mound centers.
- Sabo worked with the ARAS State Archaeologist and Registrar's Office staff to complete and produce a final project report for "Preserving and Presenting Arkansas History through Artifacts: Tom Jones Site Collection, Grandview Prairie Wildlife Management Area" (ANCRG Grant 20-003; \$57,205). Sabo and team also submitted a proposal and received funding from ANCRG (\$56,569) for Grant 22-003, "Preserving and Presenting Arkansas History through Artifacts: Historic Old Washington Site Collection, Historic Washington State Park."

Teaching & Higher Ed

- Sabo served as Co-Director of the Environmental Dynamics Interdisciplinary PhD program in The Graduate School and International Education at the University of Arkansas.
- Sabo served on one Anthropology (ANTH) PhD student committee during 2020-2021.
- Sabo continued to serve on the UAF Anthropology Department Personnel Committee, the University of Arkansas MicroCT Imaging Consortium for Research and Outreach Scientific Advisory Board, and the University of Arkansas System eVersity Academic Governance Council.
- Sabo provided an online presentation, "Field Research with Indigenous Communities: How I Learned to Hunt, Drum, and Sing (after a fashion)", as part of the Fulbright College Geosciences Spring 2021 Colloquium Series (February 26, 2021; audience 45).

Photo on facing page: Dr. Sabo (right) and Michael Evans (ARAS-UAF) record total station data at Pea Ridge in 2018.

Professional Service

- Sabo served as a grant review panelist for the Fall 2020 National Endowment for the Humanities Archaeological and Ethnographic Field Research Program on the New World Archaeology

Public Service & Outreach

- Sabo participated in meetings of the Arkansas Archeological Society Executive Board to provide information on ARAS activities, University of Arkansas System policies, and general archaeological matters
- Sabo took part in the online Native American Art, Ritual and Cosmic Renewal Looting and Archaeology Panel, hosted by the National Cowboy & Western Heritage Museum in connection with the Museum's Spiro and the Art of the Mississippian World exhibition (May 7, 2021; audience 25).



Goerge Sabo teaches about the Zimmerman Petroglyphs 3FR512 during the 2017 Training Program.



George Sabo helped conduct a tour of rock art sites in Petit Jean State Park for members of the Osage Nation.



George drumming with the Caddo Culture Club at the 2011 Caddo Conference, Fort Smith.



The State Archaeologist, Mel Zabecki, PhD

The duties of the State Archaeologist involve all aspects of public archaeology, from site reporting to liaison with various agencies to public education and outreach programs. These activities include preservation planning; making recommendations to state, federal, and private entities about appropriate site and artifact management; and establishing guidelines for archaeological research in the state. Information on state laws pertaining to archaeological sites in Arkansas is available from this office. The State Archaeologist also works closely with the Survey's collections and records management programs and the Arkansas Archeological Society, and oversees the activities of the education outreach coordinator, publications editor, and the commercial graphic artist.

Melissa (Mel) Zabecki (PhD, University of Arkansas, 2009) joined the Survey as the Educational Outreach Coordinator in January 2018 and became the third person to serve as State Archaeologist in January 2021, replacing Dr. Ann Early upon her retirement. Before arriving at the Survey, she served as a Park Interpreter at Parkin Archeological State Park after adjunct instructing various anthropology courses at the University of Arkansas Fayetteville and Fort Smith. Mel has spent most of the past 10 years focused on public archaeology, but also specializes in the identification of human remains from archaeological contexts. She earned her PhD and MA in Anthropology from the University of Arkansas, and BA in Anthropology from Mount Holyoke College.

Mel Zabecki at 2019 History Day at Northwest Arkansas Community College with information about the Arkansas Archeological Survey, the Arkansas Archeological Society, and careers in anthropology.

Office of the State Archaeologist Activities for 2020–2021

Mel Zabecki spent half of the year as Education Outreach Coordinator and half of the year split three ways between finishing up education outreach activities, starting to learn State Archaeologist duties, and taking on some duties as Interim Director in advance of Director George Sabo's retirement - all with the backdrop of the Covid pandemic - so this transition resulted in a dizzying array of responsibilities. Among Zabecki's myriad activities this year, two major achievements were events she coordinated for Native American Day and International Archaeology Day. As Educational Outreach Coordinator, Zabecki collaborated with the Shiloh Museum of Ozark History to create a Native American Day event, which went from a pre-Covid face-to-face activity, targeted at 500 students, to a cross-state virtual event that ultimately attracted 2,000 students. Many Survey archaeologists, as well as Tribal representatives, State Parks interpreters, and living historians, gave presentations about various aspects of archaeology and Native American History. Some of the presentations included hands-on activities in which props and materials were mailed out ahead of time. Zabecki

helped determine the programs based on Arkansas History educational standards, identified speakers, packed activity materials, and gave a few presentations during the event. For International Archaeology Day, in lieu of face-to-face programming, Zabecki and Michelle Rathgaber (incoming Educational Outreach Coordinator) compiled videos of Survey staff to post on the Survey's YouTube channel and to show the public the type of work conducted at the Survey. For additional outreach, Zabecki co-presented at the virtual meetings of the Arkansas Archeological Society (with Michelle Rathgaber) and Arkansas Science Teachers Association (with Amy Warren of the Northwest Arkansas Community College) in 2020.

As the new State Archaeologist, Zabecki met with many individuals, either face to face or virtually, to introduce herself and see what kinds of projects were ongoing or needed. She met with the Arkansas Historic Preservation Program and State Historic Preservation Office, the Arkansas Department of Transportation, the National Park Service/Buffalo National River, U.S. Army Corps of Engineers, Army National Guard, Preserve Arkansas, the Preservation for African American Cemeteries, the Arkansas Forestry Association, and with the Heritage Program Managers on the Ouachita and Ozark-St. Francis National Forests, as well as the Tribal Relations Liaison for the USDA Forest Service, and other State Archaeologists. She also met with Tribal Historic Preservation Officers and other officials of the Osage, Quapaw, Choctaw, and Cherokee Nations, and looks forward to meeting other tribal representatives with areas of interest in Arkansas. While Dr. Zabecki was already well acquainted with all of the Survey's research stations, she made new connections as State Archaeologist by re-visiting the stations, listening to concerns and ideas, and working with station archaeologists to assist in their strong outreach and collections management activities.

One project that Zabecki began as Education Outreach Coordinator and continues to manage is a dermestid beetle colony to render animal skeletons for comparative purposes across the Survey. While many faunal assemblages are interpreted by faunal specialists outside of our organization, having comparative collections at each station will help the archaeologists make initial assessments of faunal samples from sites in their regions. As a plethora of how-to books on keeping a flesh-eating beetle colony does not exist, the first year of this project included research and a lot of trial and error on how to keep a healthy and productive colony; Zabecki was successful in processing a mink, bobcat, deer, raccoon, squirrel, rabbit, and egret, and looks forward to adding more animals to help stations build up their comparative faunal collections in the future. The animals were either collected with Arkansas Game and Fish Commission Scientific Collection Permits by previous station archaeologists or were donated directly to the Survey by Arkansas Game and Fish Commission educators.

While Zabecki will serve as Interim Director of the Survey during the search for Dr. Sabo's replacement, she looks forward to continuing to develop projects as State Archaeologist, including updating the State Archaeologist's web page, creating a solid network of professional archaeologists who work for various agencies across the state, helping station



Mel Zabecki visits the JEC Hodges Collection with Mary Beth Trubitt (ARAS-HSU).

archaeologists form relationships with citizens across Arkansas, and working with the Arkansas Archeological Society to attract new members and to find exciting activities for current members.

Academic & Service Activities

Grants, Honors, and Awards

- Zabecki was awarded a Hester Davis Small Grant (\$1780) for faunal specimen preparation.

Teaching & Higher Ed

- University of Arkansas, online course, Introduction to Biological Anthropology, Fall 2020 (38 students) and Spring 2021 (50 students).
- Arkansas State University - Midsouth, online course, Cultural Anthropology, Fall 2020 (8 students) and Spring 2021 (13 students).
- Guest lecture for Jessica Kowalski's UAF Cultural Resource Management class (15 students).

Professional Service

- **Professional Organizations.** Zabecki serves as a Board Member on the R.E.A.C.H. Committee and Programs Committee (3-year term began 7/2019) of the Arkansas Humanities Council; serves as the SAA Public Education Coordinator State Representative for Arkansas and is a member of the Public Education Committee of the Society for American Archaeology; Zabecki also serves as the state coordinator (outgoing at end of year) for Project Archaeology. Project Archaeology is an organization headquartered in Montana that offers educational resources to bring archaeology into the classroom nationwide. Zabecki is a member of the National Association of State Archaeologists, an inaugural member of the Jamie C. Brandon Center for Archaeological Research Advisory Board, and a member of the 2022 Southeastern Archaeological Conference (SEAC) planning committee (the meeting will be hosted by ARAS in Little Rock).
- **Editorships & Peer Review.** Zabecki reviewed an article for the *International Journal of Osteoarchaeology*.

Public Service & Outreach

- **Arkansas Historic Preservation Program.** Zabecki worked closely with the Section 106 personnel on various preservation issues around the state. She reviewed all Section 106 letters and shared them with appropriate Station Archaeologists.
- **Arkansas State Parks.** Zabecki collaborated with various State Parks officials on artifact/bone finds, preservation questions, and grants.
- **Law Enforcement.** Zabecki assisted the Washington County Sheriff's Department in identifying a human tooth and deer bone that was found in a citizen's driveway.
- **Forest Service.** Aside from regular interaction about project notifications for both the Ozark-St. Francis National Forests and the Ouachita National Forest, Zabecki assisted in an ARPA case on the Ozark-St. Francis National Forests identifying and inventorying human remains.
- **U.S. Army Corps of Engineers:** Zabecki read and commented on public notices on projects.
- **Private Citizens.** Zabecki responded to an average of 5 inquiries a week from citizens seeking information or artifact identification (62 total for the year).



Mel Zabecki with a local Girl Scouts troop.

- **Museums.** Zabecki collaborated with the Shiloh Museum of Ozark History to plan Native American Days 2020 and served as a Humanities Scholar for Historic Cane Hill's planning grant for a 2022 exhibit.
- **K-12.** Three teacher workshops in summer of 2020 (33 teachers); virtual visits to 8 Arkansas classrooms (92 students); Native American Days event with the Shiloh Museum (these virtual events reached thousands, with Zabecki's presentations reaching about 400 students); Zabecki also voted on posters for National History Day Arkansas 2021.
- **Skype-a-Scientist/Letters to a Pre-Scientist.** 2 class 'visits' with 32 students in Canada and in Virginia and correspondence with one penpal.
- **Scouts.** One day with Girl Scouts (8).

Service to the Arkansas Archeological Society

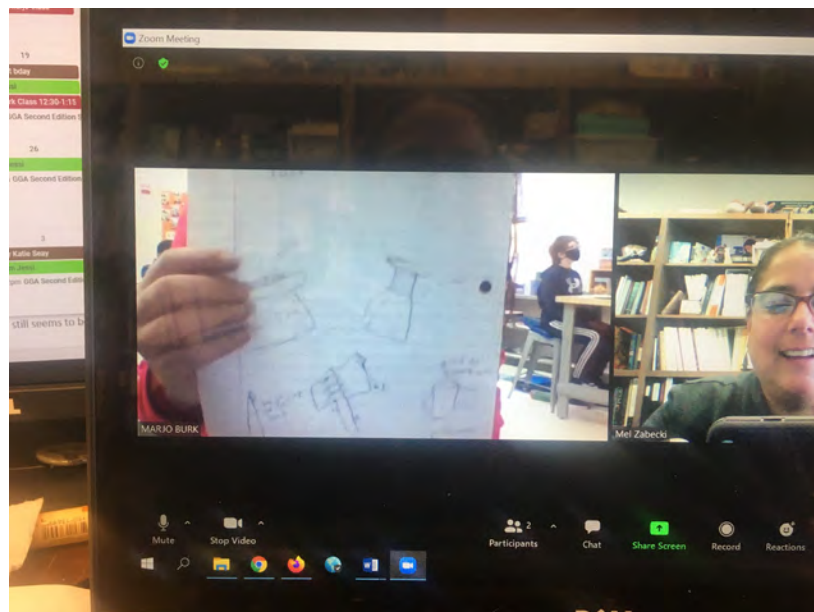
- **Executive Board.** Zabecki serves as an ex-officio member.
- **Ko-ko-ci Chapter.** Zabecki served as outgoing Kokoci Secretary, produced and distributed monthly newsletters, presented a November 2020 talk on native foods, and organized Facebook live events for Archaeology Month in March.

Records & Collections Management

- Zabecki reviewed and granted permission on requests for use of Survey images to publishers, students, and exhibit preparators (4).
- Zabecki consulted on human remains identification with the University Museum (4 occasions) and with Station Archaeologists (5 occasions).
- Zabecki completed extensive human remains identification and report writing for recent donations to the Registrar (10 occasions), WRI, HSU, ASU stations and for the current ANCRC grant.
- Accepted donations from Hampson Archeological Museum State Park, and 2 private citizens.

Volunteer Hours

- Students and Society volunteers contributed 25 hours on various projects under Zabecki's supervision during 2020-2021.



Zabecki views a student's designs for primitive tools during a virtual classroom visit.



The Survey Registrar, Teka McGlothlin

ARAS Registrar’s Office Activities 2020–2021

Managing the State’s Archaeological Site Files

The ARAS registrar’s office oversees the reviewing and encoding of site forms, project reports, slides, black & white photos, accession paperwork, evaluating and curating new archaeological collections (both contract and donations), and encoding the paperwork associated with collections.

The **AMASDA** (Automated Management of Archaeological Site Data in Arkansas) database is a dynamic research tool that is linked to a geographical information system (GIS) and records archive. Maintaining the daily influx of data is vital to keeping this resource current. This year **281 new sites** were recorded, bringing the total for the state of Arkansas to **50,443**. Additionally, **188** previously recorded sites (revisited by various persons during the year) were reviewed and encoded. New archaeological projects numbered **263** this year, bringing the total projects listed in AMASDA to **7,803**. Finally, **5** archaeological collections were submitted, reviewed, and accepted for curation.

Arkansas Archeological Survey Site File Activity, 2019–2020

New Sites Recorded	281	Total no. of sites in Arkansas site files: 50,443
New Data for Known Sites	188	
Access to Records	427 online access 99 AMASDA subscribers 14 students & researchers 16 Agency & 45 Contractor	
Collections Accessioned	5	
New Projects in AMASDA	263	Total no. of projects in AMASDA: 7,803

The Survey registrar's office is responsible for reviewing, processing, and curating all archaeological site data in Arkansas. The Registrar manages and maintains all paper, photographic, microfilm, and electronic records of archaeological 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 archaeological 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.

Teka McGlothlin (MA, University of Arkansas, 2014) was promoted to Registrar in January 2019 after serving ably as Assistant Registrar since July 2014. She had worked in the office since 2008, beginning as an undergraduate student, and continuing while she completed her master's degree. McGlothlin's studies focused on antebellum historical archaeology, cultural interaction and settlement, and the use of ArcGIS as a way to represent patterns in archaeology. McGlothlin serves on the ARAS Digital Data Collection Initiative (DDCI) working group.

Sarah Hunt Shepard (MA, University of Arkansas, 2016) became Assistant Registrar in 2019 after two years as Research Assistant. She had served in the office since 2014 on various projects including scanning technical reports and mapping projects. In addition to working on AMASDA and collections management, she continues to maintain the Survey's compliance with the Native American Graves Protection and Repatriation Act. Shepard served as Vice President of the Arkansas Archeological Society through January 2020, and is a member of the ARAS Hester A. Davis Fund Proposal Review Committee.

Madelyn Rose (BA in Anthropology and Art History, University of Arkansas, 2018) was promoted to Collections Technician in June 2021. Her new job responsibilities include managing the processing, care, and maintenance of collections as well as assisting the Survey Registrar and State Archaeologist in training assistants and volunteers in the lab. Prior to joining the registrar's office in 2015, Rose worked with the University of Arkansas Museum Collections.

Photo on facing page: ARAS Registrar Teka McGlothlin (right) and Assistant Registrar Sarah Shepard (center) show 3D scanner technology to visitors at a previous Celebrate Archaeology Day.

Assistance to Researchers & Agencies

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

During FY 2020–21, the office fielded inquiries from American Indian Tribes, federal and state agencies, including the Arkansas Department of Transportation, the State Historic Preservation Office, the US Army Corps of Engineers (Fort Worth, Little Rock, Memphis, Tulsa, and Vicksburg Districts), the Natural Resources Conservation Service, FEMA, the National Park Service, the Ozark-St. Francis and Ouachita National Forests, and others. In the course of the year, the registrar's office also assisted **45 private firms** doing research in Arkansas. A list is provided on page 83.

As of July 2015, contractors may have access to AMASDA Online. The current fee schedule is \$50 per project or \$1200 per year. An "Access to Records" form must be submitted for each project. The fees 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 2020–2021 fiscal year, we had **427** single project requests with **91 paid per-project** and **8 annual subscriptions**. Due to Covid-19, the office was closed for most of the year and there were no in-office contractor research visits.

The office assisted **12 students and guest researchers** on various projects: Andy Davis and Jeff Girard (Claiborne Parish Library, Homer, LA) for Three Creeks site preservation and data updates; Carla Klehm (CAST, University of Arkansas) for petroglyph scanning for the Fairfield Bay Historic Preservation Program; Amanda Regnier and Rachel Jones (University of Oklahoma) for research on artifact analysis of site 3MI266; Ben Vining (University of Arkansas) for a project using AMASDA as a model for similar database construction; Don Bragg (USDA Forest Service) for Irons Fork Experimental Forest site survey; Duncan McKinnon (Jamie C. Brandon Center for Archaeological Research, UCA) for research on "The First People: The Earliest Inhabitants of AR"; Erik Otarola-Castillo and Melissa Torquato (Purdue

University) for a study on diet trends during the foraging-farming transition; Sam Martin (University of Arkansas) for his dissertation on hydrologic modeling and impacts to sites; Samuel Huey, Dr. Langley and Dr. Rees (University of Louisiana); Kathlyn Guttman (Gilcrease Museum) for “Repatriation of Arkansas Ancestors at the Gilcrease Museum”; John House (ARAS Emeritus) for research on Contact Era European trade goods on the Arkansas River; and Jack Bennett for research on the distribution of the Arkansas Archaeological Record.

Teaching Service

In addition to helping students with research projects, the registrar’s office regularly conducts tours of its facilities for students enrolled in classes at UAF during the academic year, and for visiting groups of university and K–12 students from around the state. The Survey employed UA undergraduate student Natalie Mulvihill in the registrar’s office. An ANCRC grant 20-03 supported five hourly employees, Madelyn Rose, Melody Astle, Kaylyn Moore, Laura Potts, and Isabelle Wise, to inventory collections.

NAGPRA Functions

The office has worked to achieve and maintain NAGPRA compliance for the Survey’s collections, with the following accomplishments this year:

- Summary for Unassociated Funerary Objects from Lake Dumond site was submitted to the NPS NAGPRA Office and Quapaw Nation for repatriation.
- Assisting outside agencies with NAGPRA compliance and information: Arkansas Department of Transportation, Arkansas State Parks, University of Arkansas Department of Anthropology, US Army Corps of Engineers, University of Arkansas Museum, and the U.S. Forest Service.

Current Projects

The ARAS registrar’s office manages the Survey’s 3D scanning lab, which includes an Artec Space Spider handheld scanner, a Breuckmann structured light scanner, and a Creality-10 3D printer. These items have been used for many projects, including the replication of artifacts for display and public outreach. The digital scans can be used as teaching aids, as digital curation, and for their research potential.

McGlothlin and Shepard were part of a grant initiative spearheaded by Mary Beth Trubitt (ARAS-HSU) to scan artifacts from the JEC Hodges Collection. These scans were used for interpretive elements of the interactive public display, “Interpreting the Hodges Collection at the Henderson State University Caddo Center,” which launched in the fall of 2020.

Partnering with CAST and the University of Arkansas Museum, the registrar’s office is also using scanned images to create a virtual museum for research and teaching purposes. This project allows researchers and the general public to examine artifacts from a computer or mobile device. As new artifacts from the University Museum and Archeological Survey collections are scanned and uploaded, they can be viewed at the University of Arkansas Virtual Museum: <https://sdc.cast.uark.edu/>

Records & Collections Management

The office continued maintenance of an inventory control database to provide the location of the artifacts in the curation room. This database is classified by row, bay, and shelf of container. Inventory will have the ability to be searched or sorted by location, accession number, project name, and/or site number.

The ARAS registrar’s office also manages the rehabilitation of older collections. An agreement with the Forest Service is ongoing but was put on hold this year due to Covid-19. Madelyn Rose and Sarah Shepard began working with Forest Service collections in 2017. This is a continuing effort to bring those artifacts up to current curation standards. The office continues to document collections from the Tom Jones/Grandview site and Georgia Lake, inventorying and preparing the items for proper curation. This project is funded by a grant from the Arkansas Natural and Cultural Resources Council.

In addition to processing donated collections from private individuals across the state, the registrar’s office is digitally archiving records accrued from Ann Early’s career as HSU Station Archaeologist and later as the State Archaeologist.

The registrar’s office provided assistance to the following firms, groups & agencies during 2020–2021

Federal

- Argonne National Laboratory
- Bureau of Land Management, Department of the Interior
- Federal Emergency Management Agency (FEMA)
- National Park Service - Midwest Archaeological Center
- Natural Resources Conservation Service, Little Rock
- US Army Corps of Engineers – Fort Worth, Little Rock, Memphis, Tulsa, and Vicksburg Districts
- US Department of Agriculture, Farm Service Agency
- US Forest Service
 - Ouachita National Forest
 - Ozark-St. Francis National Forests
- C Dimensions
- Dynamic Environmental Associates, Inc.
- EBI Consulting
- Enercon Services, Inc.
- Environmental Corporation of America
- Environmental Research Center, University of Missouri
- Environmental Solutions and Innovations
- Environmental, Inc.
- Flat Earth Archeology, LLC
- Garver
- GRAVitate, LLC
- HDR Inc
- Historic Preservation Associates
- HNTB Corporation
- Holt Consulting Services, LLC
- ICF
- Jacobs Engineering Group, Inc.
- JP Archaeological
- M & E Consultants
- Merjent, Inc.
- New South Associates
- Open Range Archeology, LLC
- PaleoWest
- Panamerican Consultants, Inc.
- POWER Engineers
- Quality Services, Inc.
- R. Christopher Goodwin & Associates, Inc.
- SCI Engineering, Inc.
- SWCA Environmental Consultants
- Terracon
- TerraXplorations, Inc.
- Tetra Tech, Inc.
- Trileaf Corporation
- Westwood Professional Services
- Wood Environment & Infrastructure, Inc.

State

- Arkansas Department of Transportation
- Arkansas Historic Preservation Program/Department of Arkansas Heritage

American Indian Tribes

- The Cherokee Nation
- The Choctaw Nation
- The Muscogee Nation
- The Osage Nation
- The Quapaw Nation

Private Firms

- Afendras Archaeology, LLC
- AECOM
- AGEISS, Inc.
- Algonquin Consultants, Inc.
- AmaTerra Environmental, Inc.
- Arcadis, US Inc.
- Atwell, LLC
- Bearwater Heritage Consulting
- Blanton & Associates
- Burns & McDonnell



Educational Outreach

The Educational Outreach Coordinator is responsible for sharing the wonders of Arkansas archaeology by way of creating educational and interpretive materials, visiting with the general public and school children, and using hands-on activities at presentations, workshops, and conferences.

Melissa (Mel) Zabecki (PhD, University of Arkansas, 2009) joined the Survey as the Educational Outreach Coordinator in January 2018. Before that, she was a Park Interpreter at Parkin Archeological State Park for six years, after teaching various anthropology courses as an adjunct instructor at the University of Arkansas Fayetteville and Fort Smith campuses. She earned her PhD and MA in Anthropology from the University of Arkansas, and BA in Anthropology from Mount Holyoke College.

Michelle Rathgaber (PhD, University of Arkansas, 2019) has worked for the Survey in various capacities since 2011. She was the Station Assistant and Acting Station Archaeologist at the Blytheville Research Station (closed 2015) from 2011 to 2015, a graduate assistant at the Coordinating Office from 2015-2019, and the Station Assistant at the Parkin Archeological State Park Research Station from 2019-2021. She holds an MSc in Osteoarchaeology from Bournemouth University and a BS in Anthropology and Zoology from the University of Wisconsin-Madison.

Michelle Rathgaber (left) with Mel Zabecki (right) at an informational booth at the Fayetteville Farmer's Market in 2018. George Sabo (ARAS Director) is inspecting artifacts at the booth.

Educational Outreach Coordinator Activities for 2020–2021

Due to the Covid-19 pandemic, many of the in-person events that are typically hosted by the ARAS Educational Outreach program had to be cancelled or postponed. The program adapted to Covid-19 restrictions by shifting to online and digital platforms. In place of traditional workshops, demonstrations, and classroom activities that give participants “hands on” experience in archaeology, the program offered web-based tools and virtual learning opportunities to help the public understand what artifacts are, what they can tell us about the past, and why their context matters. Despite initial setbacks, the Educational Outreach program saw an increase in its online presence on multiple platforms and reached more people than ever before.

The program also saw a staffing change as Mel Zabecki was promoted to State Archaeologist in January and Michelle Rathgaber moved from the Parkin Archeological State Park Station Assistant position to the Educational Outreach Coordinator position in April. Zabecki and Rathgaber had collaborated on many occasions in the past, and on two online events during 2020-2021, so the transition went smoothly.

Collaboration with Educators

Teacher workshops are a way for the Educational Outreach Coordinator to reach teachers outside of the ARAS home base area. Workshops are offered in different places in different years and explore how archaeology can be incorporated into classroom lessons. This year’s workshops focused on the Gathering, Gardening, and Agriculture curriculum developed by the Survey. Zabecki ran teacher workshops in Beebe, Monticello, and Plumerville for 33 teachers in July, providing them with professional development credit. These events had been previously planned and were held in person, following Covid-19 precautions. Local station archaeologists were invited via Zoom to talk to the teachers about the archaeology of the local area and how and where teachers or students can visit archaeological parks or museums.

Outreach directly to classrooms and students is also important to show students the impressive, long history of human occupation and innovation in Arkansas. Zabecki did virtual class visits with 8 classes, reaching 83 students. Rathgaber did one virtual class visit, reaching 8 students. Zabecki also held 2 sessions with classrooms through the Skype a Scientist program, reaching 32 students. Zabecki and Kaylyn Moore (hourly ARAS employee) presented an archaeology workshop for a Girl Scout troop in April (reaching 8 Girl Scouts).

Rathgaber presented a booth about archaeology careers at the Greenland Middle School Career Day, reaching approximately 150 middle school students and their teachers. She spoke to students about the various careers in archaeology and the different areas of science that archaeologists can specialize in.



Participants at the Plumerville teacher workshop hosted by Mel Zabecki.

Collaboration with ARAS Research Stations

Zabecki and Rathgaber organized and recruited Survey staff for a digital International Archaeology Day event in October. Each staff member recorded a 5-minute video introducing themselves, their research, and how they got into archaeology. The videos were uploaded to the Survey's YouTube channel (<https://www.youtube.com/c/ArkansasArcheologicalSurvey>) and made public on October 22 on the "Meet the Survey Crew" playlist. To date they have 560 views.

Rathgaber and Zabecki also organized and recruited Survey staff for a series of Facebook Live events hosted on the Survey's Facebook page (<https://www.facebook.com/ArkansasArcheologicalSurvey>) in March for Arkansas Archaeology Month. Each weekday at noon, someone hosted a live tour of a site or a museum, or discussed some aspect of archaeological work that is being carried out at the Survey. We hosted 23 live videos with 7,402 views. They were left online for one month and then archived.

Public Collaboration

Zabecki worked with the Shiloh Museum of Ozark history on their "Native American Day 2020" in November. This is an annual event typically held at the Museum, but it was moved online. Zabecki helped recruit archaeologists and Tribal representatives to speak about different aspects of Native American life in Arkansas in the past. The virtual event was open to teachers and students across the country and while Arkansas students were the primary focus, students from as far away as West Virginia attended as well. The event had 2,110 students signed up to participate. Zabecki taught three sessions during the day and Rathgaber taught two.

Zabecki used the Survey's Twitter account to participate in the Archaeological Institute of America's Tweet-a-thon for International Archaeology Day. There were various themes and posting times and Zabecki posted photos of archaeological tools, boots, and even how to spell archaeology.

Rathgaber recorded a "Field Trip" segment about archaeology for Arkansas PBS's Rise and Shine educational program. The segment was recorded in June 2021 and aired in early July of 2021 on Arkansas PBS.

Websites/Social Media

The Survey's website and social media platforms have become increasingly important to outreach, especially considering Covid-19 shutdowns and restrictions on holding indoor in-person events. Both Zabecki and Rathgaber regularly post to the Survey's Facebook, Twitter, and Instagram accounts to keep people up to date on the day-to-day research and laboratory activities being carried out by Survey staff and to advertise educational opportunities for the public, such as talks, museum events, and lab or fieldwork opportunities. Rathgaber and Rachel Tebbitts (ARAS Photographic and Graphic Arts) have also used the Survey's YouTube page this year to host videos about archaeological lab work in the "Lab Work" playlist.

The Educational Outreach Coordinator also organizes the Artifact of the Month web series, requesting submissions from ARAS staff members and archaeologists outside the Survey, and works with Deborah Sabo (ARAS publications editor) and Deborah Weddle (ARAS-CSP) to get artifact descriptions and pictures posted on the Survey's website in a timely manner. This series is meant to highlight artifacts from Arkansas and emphasize the importance of context to understanding an artifact's significance. Zabecki scheduled many of the authors for 2020-2021 before her promotion when Rathgaber took over.



Michelle Rathgaber shares her favorite archaeological tools for the Archaeological Institute of America's Tweet-a-thon.



Sponsored Research Program

The Sponsored Research Program (ARAS-SRP) coordinates externally funded research across the ARAS organization 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 archaeological 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 excavation operations, grant-funded research, specialized laboratory and computer tasks, cost-share projects, consulting, and public outreach. To date, the Survey has completed more than 1000 externally funded projects with SRP staff as crucial contributors. SRP service to the university community includes assistance to faculty and providing field and lab training and employment opportunities for students.

Kathleen H. Cande (MA, University of Arkansas, 1984) is a Survey Research Associate. Her specializations include historical archaeology, material culture, archival research, the colonial Southeast, collections management and curation, and prehistoric lithic analysis. Cande also coordinates the Survey's historic cemetery research and preservation program, acting as primary point-of-contact for inquiries about cemetery related projects, and is the Archaeology Lab Supervisor at the coordinating office. She joined the Survey in 1987.

Sponsored Research Program Activities 2020–2021

SRP staff continue to provide assistance to state and federal agencies, local municipalities, cemetery groups, and private citizens requesting information or assistance with site evaluation and artifact identification. Staff also provide support for several ARAS research projects. External funds supporting ARAS projects and activities are administered by Fiscal Administration staff at the coordinating office.

Kathleen Cande focused on cemetery research including conducting genealogical and archival research for members of the public who contacted her with queries.

Cande also works with the ARAS registrar's office and staff at the ARAS research stations on collection inventory and document archiving activities. Cande serves as the ARAS cemetery research coordinator, helping individuals and preservation groups across the state. She supervises the main archaeology laboratory at the coordinating office, typically supporting a wide variety of concurrent artifact collection inventory and analysis projects.

Historic Cemetery Preservation Initiative

During 2020-2021, the Survey had 46 contacts from local, state, and federal officials, preservation groups, and the general public seeking information or assistance about cemeteries in 24 counties. Regrettably, the Survey cannot provide help to everyone, but we do our best. The number of contacts is lower than in previous years, undoubtedly due to the Covid-19 pandemic. Cande assisted a patron with questions about a cemetery in Lonoke County. This eventually led to the cemetery being listed on the Arkansas Register of Historic Places. She also conducted genealogical research for another patron needing information on an ancestor's military record in order to apply for a Veteran's Administration grave marker. She also participated in a virtual meeting of the Preserving African American Cemeteries in Arkansas organization.

Other Projects

Cande assisted Michelle Rathgaber (ARAS Educational Outreach Coordinator) with compiling a list of undergraduate and graduate students that the Survey has supported in the past by providing hourly work. This information will eventually be posted on the ARAS website.

She is compiling a list of photo records for black and white contact prints and color slides housed at the 10 Survey stations for ARAS graphic designer Rachel Tebbetts. Cande compiled this information in 2015 as part of a complete inventory of archival records at the stations.

Cande prepared a 20-page bibliography of all of Dr. Ann M. Early's publications and papers given at professional meetings. For a project initiated by station archaeologist Andrew Beaupré, Cande conducted archival research on Estevan Hall in Helena, Arkansas.

Central Lab Supervision

Cande supervises the main archaeology lab in the coordinating office building in Fayetteville, keeping it orderly and well-supplied. She monitored and maintained the Survey's supply of archival-quality artifact and sample storage containers in relation to several large-scale, ongoing collection inventory projects.

Selected SRP Project Descriptions

Preserving and Presenting Arkansas History through Artifacts (ARAS Project 20-03)

With support from the Arkansas Natural and Cultural Resources Council (ANCRC), ARAS registrar's office staff completed a detailed, computer-based inventory of more than 150,000 artifacts excavated between 2001 and 2004 at the Tom Jones site (3HE40), a large, multi-mound Caddo ceremonial center located in the Grandview Prairie Wildlife Management Area in Hempstead County. Completing the work ahead of schedule, ARAS received a project extension to add processing of collections (of roughly equal size) from the Georgia Lake site (3OU112), a Caddo farmstead along the Ouachita River. Study of both sites will expand our knowledge of Caddo lifeways in southwest Arkansas. 3D scanning of diagnostic artifacts will contribute to educational outreach materials being developed for the Rick Evans Grandview Prairie Conservation Education Center.

Photo, facing page: Madelyn Rose and Michelle Rathgaber used the Survey's new tablet-based digital cataloging system to record inventory information under a grant from ANCRC (ARAS Project 19-03). Photo Rachel Tebbetts (ARAS).

Interpreting the Hodges Collection (ARAS Project 20-04)

The Hodges Collection consists of more than 38,000 artifacts acquired during the 1930s and 1940s by Thomas and Charlotte Hodges from Caddo sites along the Ouachita River in Clark and Hot Spring Counties. It is owned by the Joint Educational Consortium (Henderson State University and Ouachita Baptist University) and curated by the ARAS-HSU research station. Mary Beth Trubitt (ARAS-HSU) acquired grants from the ARAS Hester Davis Fund to support 3D scanning of 36 whole vessels by Teka McGlothlin and Sarah Shepard, for development of digital educational outreach material to accompany the collection exhibit in the Caddo Center building on the HSU campus, and development of an interactive website by Deborah Weddle (ARAS-CSP).

Safe Field Schools (ARAS Project 20-05)

Funded by a major National Science Foundation grant, Emily Beahm (ARAS-WRI) and Carl Drexler (ARAS-SAU) join Carol Colaninno (Southern Illinois University, Edwardsville) and Shawn Lambert (Mississippi State University) on a project to develop "Evidence-based Transformation of Undergraduate Field Schools to Promote Safety and Inclusivity among Southeastern Archaeology." The project seeks to develop best practices for hosting safe and inclusive field schools free of harassment, assault, and violence.

Grants, Contracts & Cost-Share Agreements in FY 2020–2021

ARAS Project No. & Name	Source	Budget
Extensions		
18-04 Prairie Grove	State Parks	\$31,452.81
19-03 Ozark St. Francis	Forest Service	\$6,000.00
20-03 Preseving & Presenting Arkansas History	ANCRC	\$38,261.06
20-04 Interpreting the Hodges Collection	AHC	\$2,000.00
20-05 Safe Field Schools	NSF subaward	\$100,493.42
20-07 Teaching Lithics	UAF Anthropology	\$1,500.00
Total (project extensions)		\$179,707.29
New		
22-01 Teaching Field School	TFSC	\$2,400.00
22-02 Digital Buffalo	UAF Chancellor's Fund	\$15,052.80
22-03 Preserving & Presenting Arkansas History - Old Washington	ANCRC	\$57,664.00
22-04 Public Access Master Plan for a wetland on the fork of the White River near downtown Fayetteville, Arkansas	NEA	cost share \$10,000.00
Total (2020–2021 new funds only)		\$75,116.80

AHC - Arkansas Humanities Council
 ANCRC = Arkansas Natural and Cultural Resources Commission
 NEA = National Endowment for the Arts
 NSF = National Science Foundation
 TFSC = Teaching and Faculty Support Center

Sponsored Research Program Awards, Service & Outreach

Professional Service

- **Organizations.** Kathleen Cande is on the Board of Directors of the Washington County Historical Society and serves as Recording Secretary and Chair of the Museum Management Committee. After serving a one-year interim appointment, she began a 3-year term on the Arkansas Historical Association's Board of Trustees (2021-2023). Cande applied for retired State Archaeologist Ann M. Early to receive the Lifetime Achievement Award from the Arkansas Historical Association. The award was presented to Dr. Early at the virtual annual meeting in April 2021. Cande is also a member of the Arkansas Genealogical Society, Friends of the Arkansas State Archives, and the Missouri Historical Society.
- **ARAS Committees.** Kathleen Cande is a member of the Web Steering Committee, Publications Committee, and the Hester A. Davis Fund Committee.
- **Editorships & Peer Review.** Cande serves as Gulf States current research editor for the Society for Historical Archaeology Newsletter.

Public Service & Outreach

- **Programs & Presentations.** Jared Pebworth assisted with the 5-day Engineering & Archaeology day camp co-organized by Mel Zabecki (ARAS State Archaeologist). Kathleen Cande assisted with the Quapaw Tribe Heritage Tour (43 participants).
- **Cemetery Preservation Initiative.** Cande serves as coordinator of the Survey's historic cemetery research and outreach to individuals and local organizations involved with cemetery preservation. She responded to phone calls and email inquiries.
- **Media Outreach.** Cande coauthored an article with George Sabo III and Mary Beth Trubitt on Dr. Ann M. Early's contributions to Caddo Archeology, published in the *Caddo Archaeology Journal* (see Appendix 1). She also co-authored an article on Early's ARAS Career Highlights that was posted on the ARAS website (<https://archeology.uark.edu/staff-news/ann-early-career>). In December of 2020, her article on Rouen Blue on White faience from Arkansas Post was featured as the Artifact of the Month on the ARAS website (<https://archeology.uark.edu/artifacts/rouen-faience/>).

Service to the Arkansas Archeological Society

- **Programs & Presentations.** Kathleen Cande gave a talk, "Davidsonville, Arkansas, Frontier Settlement or Mercantile Powerhouse?" to the Central Mississippi Valley Chapter in Jonesboro (audience 25).



Computer Services Program

The Survey's Computer Services Program is responsible for all electronic information management, including systems administration, computer operations, equipment, research, instruction, and user support, throughout the organization. Our pioneering computer database for archaeological site information (AMASDA) is one of the most comprehensive such applications in the country. We have worked to integrate the different data structures and digital tools being used in archaeological research and cultural resource management today. This approach includes geographic information systems (GIS), relational database management systems, and exploratory data analysis. CSP provides online access to AMASDA for qualified subscribers and works to provide web-enabled database access (password-protected where appropriate) for agencies and firms that manage cultural resources in Arkansas. Our educational websites respond to public interest and to agency and research needs. Our archaeogeophysical program maintains a full complement of remote sensing technologies for near-surface prospection on prehistoric and historic sites.

Jami J. Lockhart (PhD, Environmental Dynamics, University of Arkansas, 2007) holds the title of Archaeologist and serves as Coordinator of the Computer Services Program and Director of Archaeogeophysical Research within ARAS. He is Research Associate Professor in the University of Arkansas Department of Anthropology, and a Cooperating Faculty member in the Fulbright College Environmental Dynamics PhD Program. His research specializations include integrated data management, GIS, archaeogeophysics, and human-environmental interrelationships through time. He joined the Survey in 1988.

Deborah Weddle (BA, Anthropology, University of Arkansas, 1993), Research Associate, is the Survey's Information Technology support and Internet Applications Specialist. Her specializations include web application development, Information Technologies, and the use of multimedia technologies for education.

John Samuelsen (PhD, University of Arkansas, 2020) is a Survey Research Assistant. His specializations include Caddo archaeology, stable isotope analysis, geophysics, databases, GIS, digital storage, web application development, and computer applications in archaeology. He is the Survey's server administrator, administers Survey databases, and assists with all the websites and development of online resources.

Above, some geophysics equipment in the CSP Lab during a previous open house.

Computer Services Program Activities

Basic Services

Deborah Weddle's time is dedicated to Information Technology support and Front-End Web Development for the organization. She oversees IT life cycle management and assists with personal computer operations. She is responsible for computer procurement, inventory, and administration; computer repairs and upgrades; software license management and deployment; and end-user support for all ARAS staff. She also manages the CSP Computer Lab which houses several PC and Mac workstations, slide and tabloid flatbed scanners, a networked color laser printer, microfilm scanner, and an Agisoft Metashape Photogrammetry License Server.

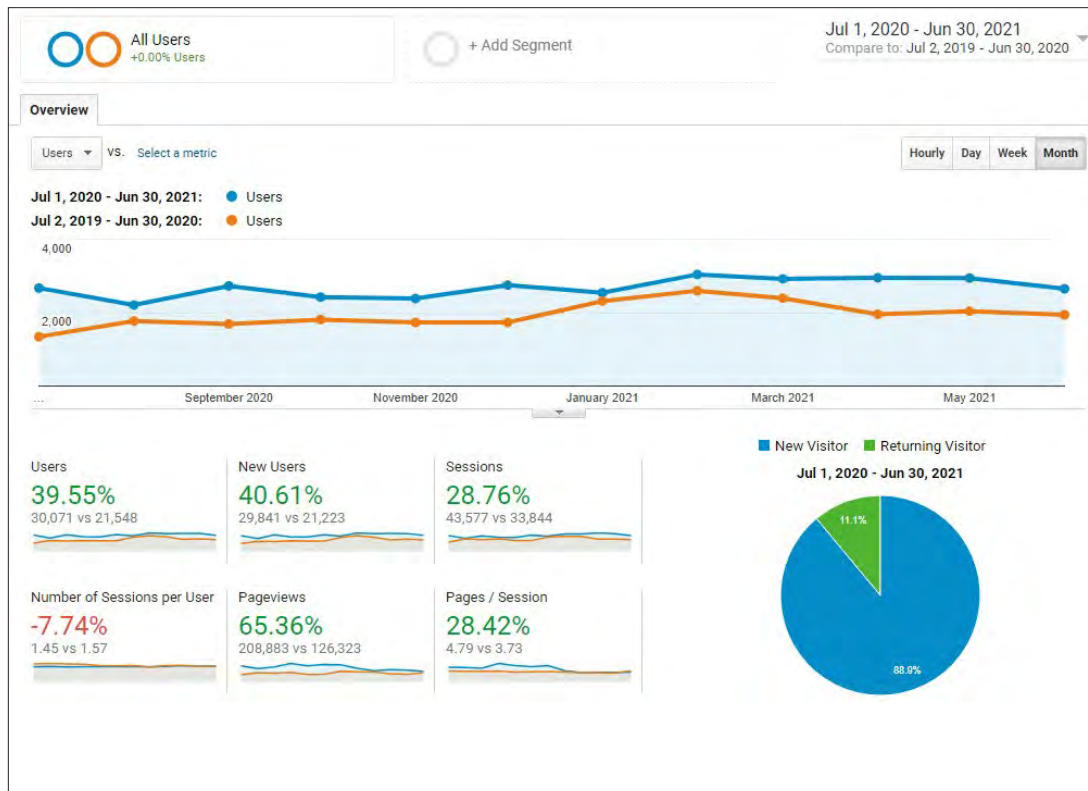
Weddle designs and maintains ARAS's main website along with focused resources like the "Interpreting the Hodges Collection at the Henderson State University Caddo Center" multimedia website, and she is continuously engaged in a variety of other web development projects. She oversees the Survey's Web Steering Committee and is the initial point-of-contact for public inquiries via the websites.

John Samuelsen continued to maintain the ARAS servers (arkarcheology, arasbackup, and arasremote), databases, backup system, the AMASDA database, some other smaller databases, the AMASDA Online website, our various educational websites (see below), and the large format printer and scanner. Samuelsen works with the ARAS registrar's office on a long-term project to create a database that can retrieve information through an online interface associated with AMASDA Online. He helped purchase, install, and maintain a new large format printer and scanner.

The CSP team works with University of Arkansas Information Technology Services to resolve issues that arise as the University moves to system-wide collaborative software.

Arkansas Archeological Survey Website

Our expansive flagship website (archeology.uark.edu or arkansasarcheology.org) promotes the huge variety of work our archaeologists and staff perform in support of our core missions of education, research, and preservation. Information about educational outreach activities, publications, new discoveries and research projects, and teacher resources are updated regularly, and guidelines and forms required by developers, public officials, and professional archaeologists are readily accessible from the home page. Media coverage of the Survey's activities are highlighted, and a statewide calendar of archaeology events is maintained to encourage Arkansas's citizens to join in activities and learn more about our state's rich heritage.



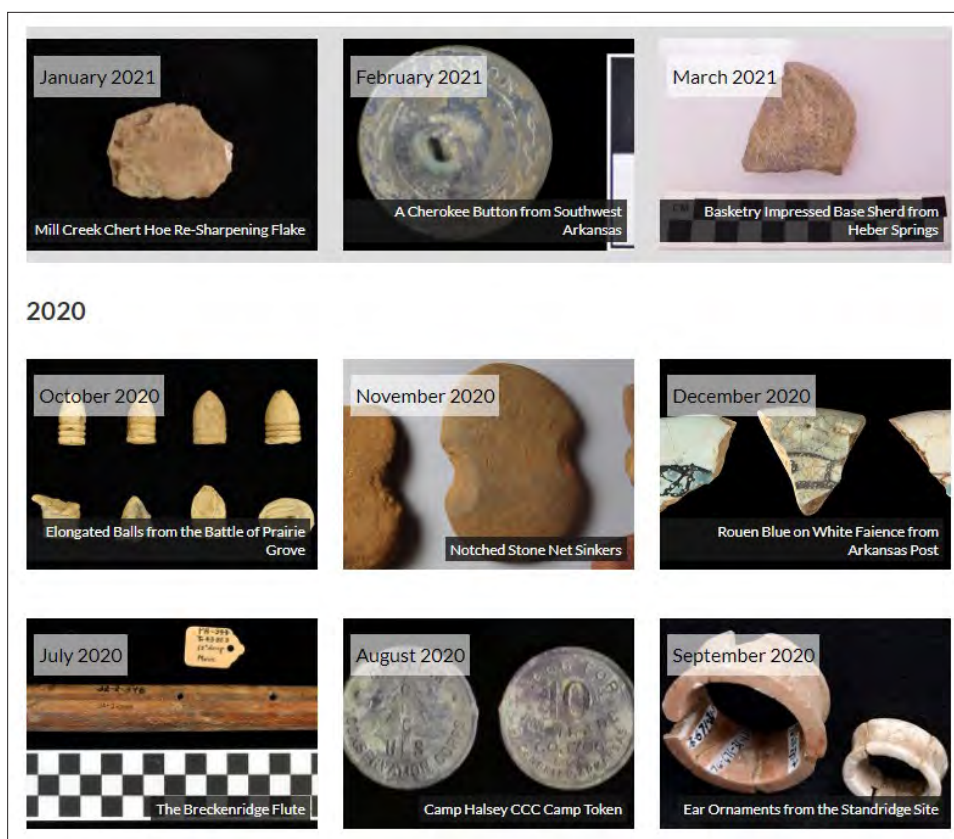
ARAS website analytics compare traffic over the past two years.

Web articles this year highlighted African American heritage and archaeology in Arkansas, promoted three new ARAS Popular Series publications and a new interactive website (Hodges), and profiled contributions by departing staff members and recent accomplishments of current ones. Visitor traffic to the ARAS website increased this year by 65%, likely due in part to increased reliance on online resources for at-home learning during the COVID pandemic. 208,883 pageviews were made by 30,071 users over 43,577 sessions. Visits to our Teacher Resources page increased by 18%, and other popular pages included Forms & Records, Publications, Research Station information, and the many wonderful Artifacts of the Month.

Artifact of the Month Web Series

This web series (<https://archeology.uark.edu/artifacts/>) highlights historic and prehistoric artifacts that contribute important information about Arkansas history and culture. Going on its fourth year, this series remains hugely popular, with each new entry landing in our top five most visited pages. Among this year's artifact profiles were a rare prehistoric cane flute made between AD 1020 and 1160 and a depression-era CCC camp token.

Focus Websites



Artifact of the Month portal page.

ARAS hosts seven focus-topic websites, accessible from our main homepage. Indians of Arkansas (<http://archeology.uark.edu/indiansofarkansas/index.html>) remains popular with online visitors and useful to educators; it is slated for a redesign in the near future. Indians of Arkansas had over 83,000 pageviews and 35,000 sessions in 2020–2021. Arkansas Novaculite (<http://archeology.uark.edu/novaculite/index.html>), written and continually updated by Mary Beth Trubitt (ARAS-HSU), appeals to researchers and to anyone interested in the chipped stone artifacts found in Arkansas and adjacent areas. It had over 12,000 pageviews and 8,300 sessions this year. Bluff Shelters of the Arkansas Ozarks (<https://archeology.uark.edu/ozarkbluffshelters/>), written by Lydia Rees, gives a thorough introduction to one of the state's most well known site types. Deborah Weddle and John Samuelson provide any needed maintenance to all the websites throughout the year. Sloan: A Paleoindian Dalton Cemetery (archeology.uark.edu/sloan) was developed in 2017 to serve as an online companion to the reprint of Sloan: A Paleoindian Dalton Cemetery in Arkansas by Dan F. Morse (University

of Arkansas Press, January 2018). Visitor traffic to the Sloan website increased 17% over last year, with 7,254 pageviews from 1,249 users over 1,547 sessions. Gathering, Gardening, and Agriculture: A 5th Grade Social Studies Curriculum (archeology.uark.edu/gga/) is a grant-funded website with teaching materials developed by ARAS archaeologists Jodi Barnes, Emily Beahm, and Elizabeth Horton in 2017. Teachers all over Arkansas may utilize this free resource to help meet state educational requirements. This site will undergo a redesign and expansion in late 2021. New developments in 2020–2021 are outlined below.

Interpreting the Hodges Collection at Henderson State University's Caddo Center

In 2020, under HSU Station Archaeologist Mary Beth Trubitt's direction, Weddle designed a website featuring narrative videos and manipulatable 3D scans of the Hodges Collection artifacts. Samuelson helped with integrating the 3D objects into the website. The website's responsive design allows it to run as an interactive touchscreen kiosk in the Caddo Center at Henderson State University. This project was funded by grants from the National Endowment for the Humanities, the Arkansas Humanities Council, and the Arkansas Archeological Society's Bill Jordan Public Education Fund. The website was completed in December 2020 and additional 3D interactive models and videos were added during Spring, 2021. Expanded content is planned for the future.

Rock Art in Arkansas redesign (archeology.uark.edu/rockart/index.html)

In early 2020, Weddle implemented a redesign of the long-lived and popular Rock Art in Arkansas website, based on input from Emily Beahm (ARAS-WRI). Weddle created the design elements and navigation structure in Wordpress, then handed the site over to Beahm for further content development and completion. Samuelson helped with the beginning stages of the website's relaunch. Rock Art in Arkansas had 24,000 pageviews and 9,000 sessions in 2020–2021.

AMASDA Database & Backup Systems

Samuelson administers a centralized and redundant backup system for the digital information created by the ARAS organization. AMASDA and the arkarcheology server, and the new arasbackup server, are backed up nightly. The File Share folder, backed up nightly, now has 17.1 TB of data, 4,070,243 files, and 160,855 folders currently backed up. In addition, 9.2 TB of data is currently in use for system backups. This is an 11 percent increase in the size of the file sharing portion of the data over the last year. The server also has full system backups. The arasremote server is housed at the University data center, which allows for a total system backup in a remote location. This is to protect our data in a worst case scenario.

AMASDA Online

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 7,177 times this year (a 1 percent decrease over last year) to retrieve 1,181,172 records related to archaeological sites and projects in Arkansas. The web traffic on AMASDA Online was 104,630 pageviews (6 percent increase over previous year). Samuelson also fixed various issues with AMASDA as they occurred and performed occasional custom queries of the database and GIS analyses of archaeological site data upon request.

Collections Database

Samuelson worked with ARAS registrar's office staff to create and implement a Collections database system in File-Maker that is connected to the digital field data database. It provides basic information about archaeological collections at the Survey. The initial version was tested at the CO, but was designed so that all research stations could use it. It provides the first centralized database for the Survey's archaeological collections. Successful testing projects last year allowed the entry of data on hundreds of thousands of artifacts by only a few individuals working part time.

During the latter half of 2020, Samuelson upgraded the system to have an advanced user permission structure so that data can be entered statewide without different users creating conflicting records or accidentally modifying or deleting records. This was a large undertaking, but the launch has been successful. Samuelson created online training videos for staff and volunteers to train them for use with the system. The system needs to be integrated with the rest of the Survey's collections databases which should take place next year.

Archaeogeophysical & GIS Research Projects

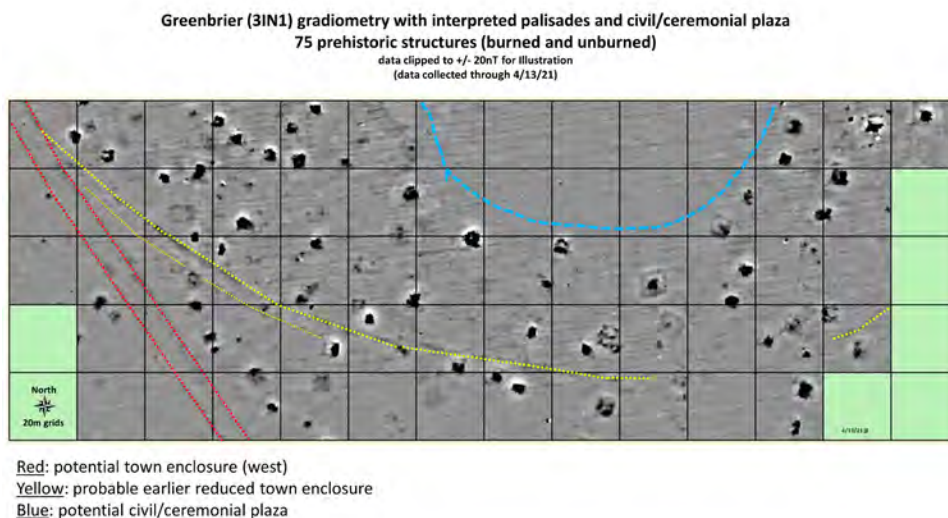
Archaeogeophysical remote sensing has revolutionized archeological methodology and has become an integral part of research design and cultural resource management. These technologies offer nondestructive reconnaissance that can save time and expense by focusing excavation efforts for the most beneficial result. The Survey endeavors to remain at the forefront of this development.

Jami Lockhart coordinates and directs GIS and archaeogeophysical data development and research across the state, both for ARAS projects originating at the various research stations and projects funded by grants or cost-share agreements with other agencies. In this capacity, he contributes original research as principal investigator, and collaborates with colleagues on research design and project reports. He also provides support for students and serves on University of Arkansas thesis and dissertation committees.

Greenbrier (31N1)

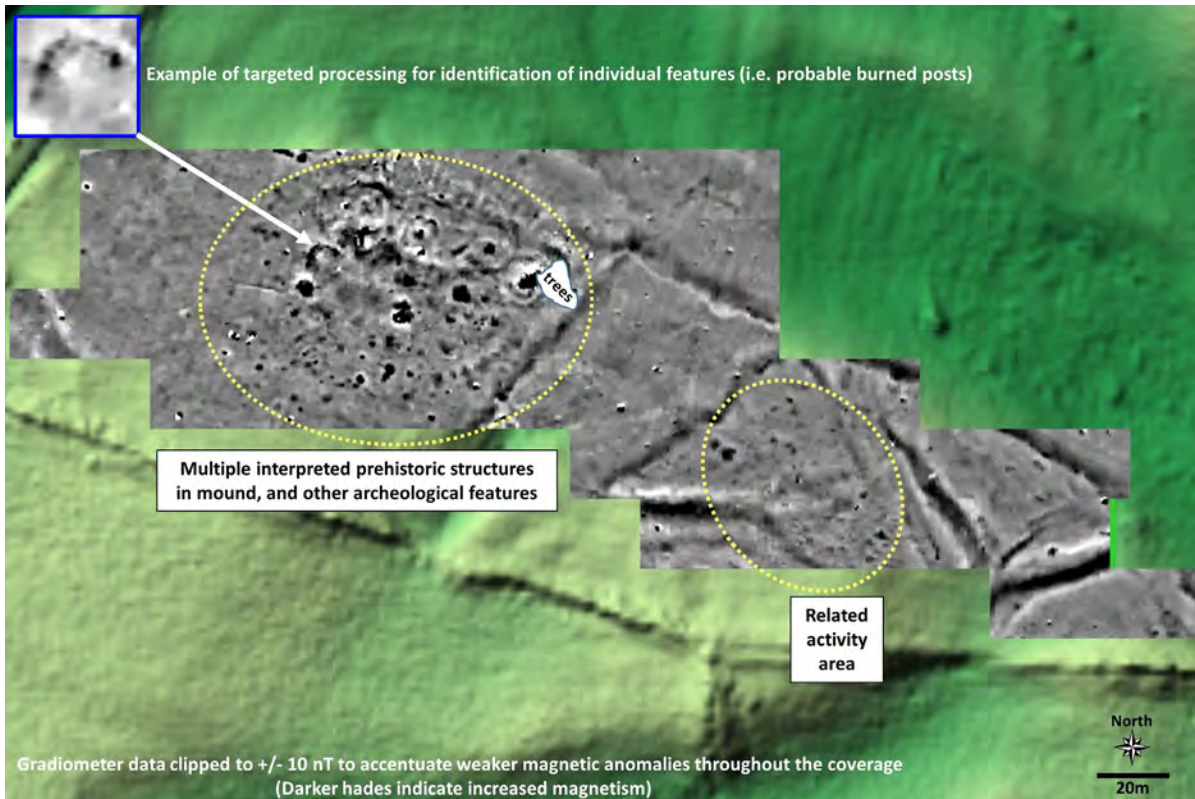
- Lockhart is collaborating with ARAS-ASU staff Julie Morrow and Sarah Stuckey and local volunteers to conduct geophysical remote sensing surveys at the Greenbrier Site (31N1), an exceptionally well-preserved Mississippian town in the White River Valley. In Spring 2021, 2.5-hectares of gradiometry encompassing approximately 25 percent of the site enclosure were surveyed. To date, interpretations include more than 75 prehistoric structures enclosing a clearly defined civic/ceremonial plaza. Interpretations also delineate two separate fortification alignments indicating a probable site enlargement suggested by apparent feature superimposition. In addition to providing precise locations for future excavations, these data comprise an organizational pattern that elucidates structure size, shape, orientation, density, architectural elements, temporal span, hierarchy, and more. Future work will provide complete coverage of the site in 2021 and 2022 as agricultural seasons permit.

Greenbrier (31N1) gradiometry showing numerous prehistoric houses, defensive palisades, and a civil-ceremonial plaza.



Fisher Mound (3HS22)

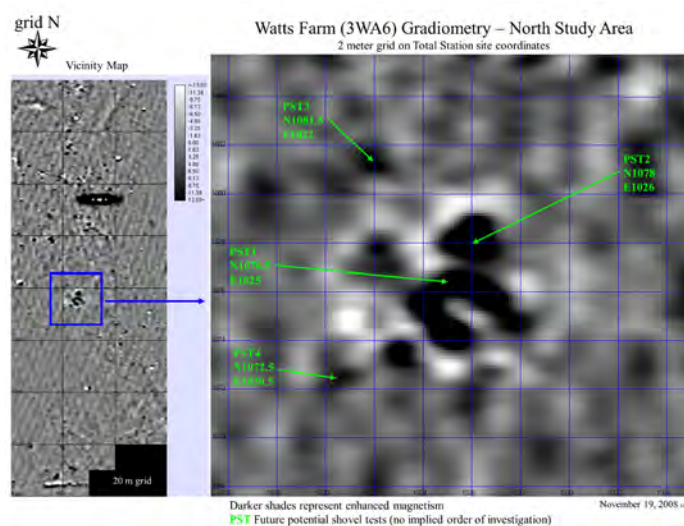
- With Mary Beth Trubitt (ARAS-HSU), Lockhart has begun a program of archaeogeophysical surveying and mapping at 3HS22, where a large two or three-stage “temple mound” was recorded in 1967. Pottery attributed to this location suggests use at least to the Mid-Ouachita and Social Hill phases, ca. AD 1350-1600. When the mound was partially leveled in 1976, Ann Early, then the Arkansas Archeological Survey’s research station archeologist, observed a series of construction stages and burned structures on both the higher and lower levels. Our preliminary gradiometry survey shows anomalies we interpret as structures and other features that still lie within or below the mound remnant.



Fisher Mound (3HS22) gradiometry showing prehistoric Caddo civil-ceremonial structures and other archaeological features.

Watt's Farm

- Lockhart (with ARAS-UAF staff Jessica Kowalski, Michael Evans, and Jared Pebworth) has conducted geophysical remote sensing and mapping in support of excavations at this prehistoric site located on the White River. Georeferenced remote sensing has contributed to feature locations and successful excavations of numerous features comprising a probable prehistoric house floor, hearth, middens, pits, and a large, intentionally-placed burned rock feature possibly used for a specific cooking activity/event. Much of the current work has occurred as part of a UA archeological field school directed by Dr. Kowalski. As interpretations progress, the site is providing rare insights into Woodland to Mississippian-period lifeways in the Ozarks.



Probable prehistoric feature located using gradiometry at a site south-east of Fayetteville.

Blackburn Creek Natural Area Historic and Prehistoric Discovery

- Working with the Northwest Arkansas Land Trust, Lockhart is surveying a 300-acre nature reserve adjacent to Devil's Den State Park and the Ozark National Forest. Lockhart's archival research indicates that a stone foundation, well, cellar remnants, road, and extensive stone walls/fences are the remains of a farmstead patented on March 20th, 1877 (the earliest purchase in the immediate vicinity). The land was purchased by Guilford Center (1820-1895). He served in Company D of the Fourth Arkansas Cavalry, Union Army, under Col. Lafayette Gregg. Company D saw combat at the Battle of Prairie Grove and the Battle of Fayetteville, among other engagements. Lockhart also recorded the location of large and numerous previously-unrecorded prehistoric bluff shelters. Lockhart also contributed a summary of trees and plants listed in the early 19th century General Land Office survey. The data are intended for use in the development of a potential natural vegetation GIS data layer.

Ozark National Forest Site Potential Modeling

- With George Sabo and Mel Zabecki (ARAS-CO), Lockhart is consulting with the Ozark-St. Francis National Forest as they enhance their land management strategies. Lockhart has provided proof-of concept GIS modeling depicting the relative potential for prehistoric archeological sites at all Forest locations. These data could support Forest capabilities to "predict" high-need maintenance areas. The archeological site potential model is based on all prehistoric site types and is specific to each physiographic subdivision. Environmental data layers used in the modeling process include elevation, ecological regions, geology, hydrography, potential natural vegetation, soils, slope, modern vegetation, and watersheds.

Historic Far West Seminary and Tuttle Farmstead

- With Dr. Sabo, Lockhart is working with the City of Fayetteville in advance of a multiuse development that includes planned parkland. Lockhart's research confirms that one of Fayetteville's earliest residents (ca. 1827), Solomon Tuttle (1757-1830), had a home and farm on the property. Tuttle donated land there for a school called the Far West Seminary (ca. 1844). Through archival research, GLO descriptions, LiDAR development, and historic photos, Lockhart has identified the location of Tuttle's Farm, early road, (ca. 1831) and the seminary.

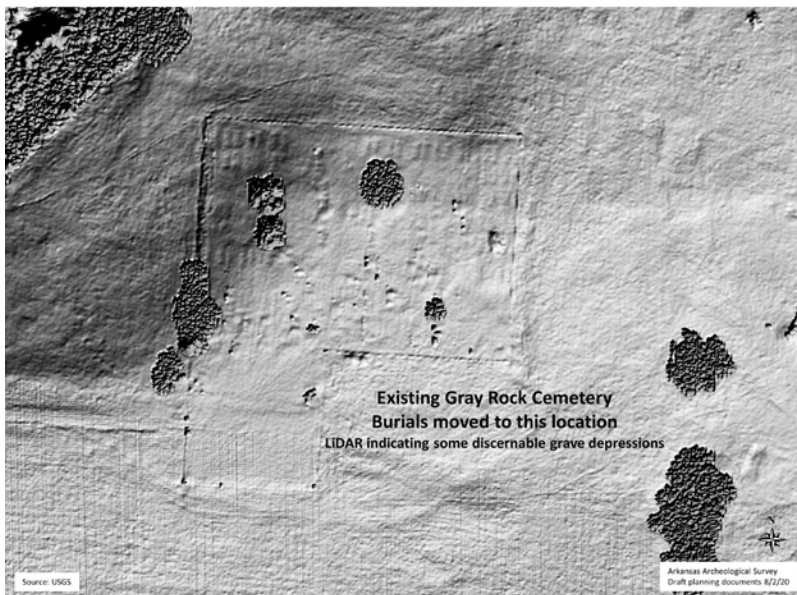
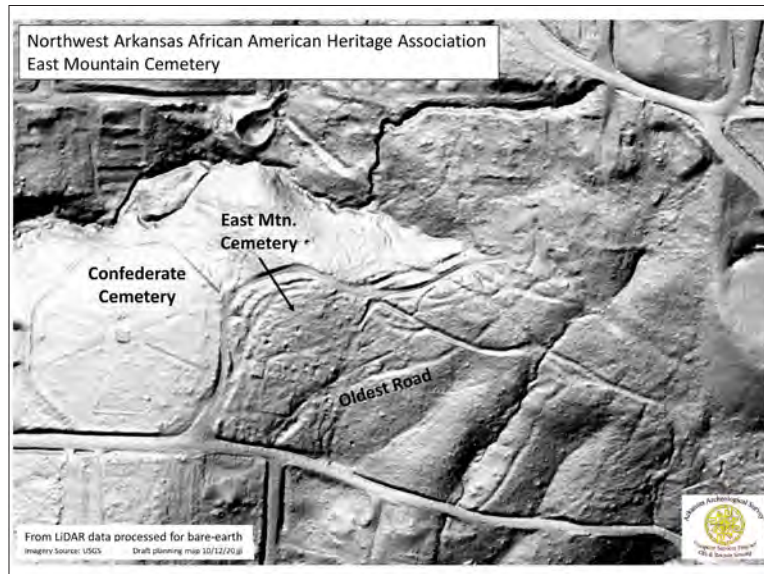
Northwest Arkansas African American Heritage Association

- Lockhart is collaborating with Dr. Sabo and other members of the NWA-AAHA to research African American cemeteries in Fayetteville. Using geophysical remote sensing technologies, Lockhart has identified multiple unmarked graves at the ca. 1867 Oaks Cemetery adjacent to Fayetteville's National Cemetery. Lockhart has also processed LiDAR data for the area encompassing the East Mountain Cemetery, which contains numerous unmarked graves of enslaved and emancipated African Americans of Fayetteville and the surrounding area. Lockhart's interpretations of LiDAR data identify probable grave depressions, as well as roads and tracks that are among the earliest in the city of Fayetteville. Lockhart is currently working with the NWA-AAHA and is currently conducting mutisensor geophysical remote sensing surveys. Lockhart has also identified unmarked graves of African Americans at Oaks, Baldwin, and Stearns Cemeteries in Northwest Arkansas. Lockhart is consulting on African American cemeteries in the historic Gray Rock community in Logan County, and the Bedford Chapel Mt. Olive Cemetery in Logan County.

Enslaved People of Washington County, AR

- As part of background research for the NWA-AAHA project Lockhart is searching archival records to characterize the demographics of enslaved people of Fayetteville and the surrounding Prairie Township. Recorded in 1860 just prior to the beginning of the Civil War, census records indicate 288 enslaved people living in Fayetteville, and 280 more living in the township. Isaac Taylor, a Fayetteville hotelier owned the greatest number with 35 enslaved people in town, with 21 males and 14 females (22 of the 35 were children). Judge David Walker (Walker Cemetery) owned the second largest number with 31 enslaved people. Nine of the 31 lived in Fayetteville (7 of those 9 were children), and 23 more enslaved people lived on Walker's farm just south of the city (11 males, 12 females, 10 children). Using these data, Lockhart plans to characterize (as best as possible) the remaining 504 enslaved people in Fayetteville and the surrounding Prairie Township to better interpret African American lifeways prior to the Civil War. Seven of the family names represented in Walker Cemetery (immediately adjacent to East Mountain Cemetery) were associated with slave ownership in 1860. Lockhart has also discovered descriptions of specific sales of enslaved people in Fayetteville.

Bare-earth LiDAR for the East Mountain Cemetery with evidence of unmarked grave depressions and early roads.



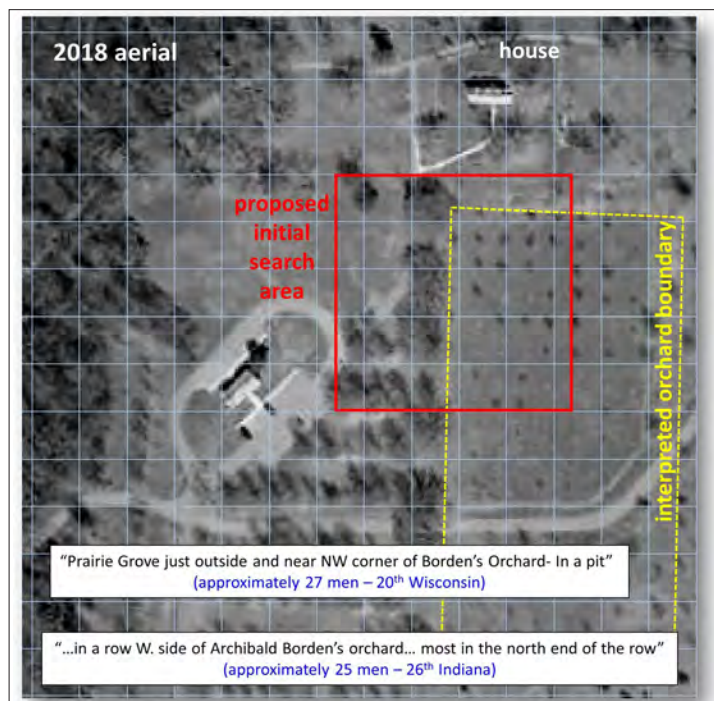
LiDAR imagery indicating grave depression at Gray Rock Cemetery in Central Arkansas.

Reinterments of Union Soldiers killed in Civil War conflicts in Northwest Arkansas

- Building upon information provided by Alan Thompson (formerly with Prairie Grove Battlefield State Park), Lockhart has conducted remote sensing to confirm the original burial location of three specific Union soldiers (Bentliff, McDermot, and Teal) at “Fayetteville Civil Cemetery”. Described nearly 160 years ago, the location of the “Fayetteville Civil Cemetery” appears to match the locale of the ca. 1878 Confederate cemetery and ca. 1838 Walker Cemetery. The latter contains the Wilson family plot originally used to describe the relative burial location of the three aforementioned Union soldiers killed in the Battle of Prairie Grove. Based on contemporaneous, hand-written reinterment records supplied by Matthew Mulheran (Prairie Grove Battlefield State Park), Lockhart estimates as many as 360 Union dead were originally buried at Fayetteville Civil Cemetery (adjacent to East Mountain Cemetery and the Confederate Cemetery). Those burials were ostensibly reinterred to the Fayetteville National Cemetery commissioned in 1867. Lockhart has conducted a proof-of-concept ground penetrating radar (GPR) and resistivity survey immediately west of the Walker family plot and interpreted lines of potential grave signatures. Lockhart is planning additional remote sensing surveys to interpret a broader pattern of Civil War burials and perhaps selectively verify the described exhumations. Lockhart hopes to collaborate with Dr. Jessica Kowalski, Jared Pebworth, and Michael Evans of the ARAS UAF Research Station on this project.

1862 Battle of Prairie Grove Burial Trenches

- Arkansas State Parks has long been interested in locating and interpreting trench burials mentioned in contemporaneous descriptions of the aftermath of the Battle of Prairie Grove. Lockhart is using a combination of archival information, historic maps, reinterment records, public land survey data, historic aerial photos, and GIS functionality to narrow the search area. Contemporaneous records indicate that 27 men of the 20th Wisconsin were buried in a trench at "Prairie Grove just outside and near NW corner of Borden's Orchard- In a pit". Lockhart has used land records to determine the precise boundary of the land owned by Archibald Borden leading up to and following the December 1862 battle, thereby locating the probable "NW corner of Borden's Orchard" as mentioned in the contemporaneous description. Other burial trenches are also described relative to the orchard boundaries. Lockhart hopes to work with UAF Research Station staff (Dr. Jessica Kowalski, Jared Pebworth, and Michael Evans) and Arkansas State Parks staff to formalize a cooperative agreement for geophysical remote sensing and pinpointed excavation for feature confirmation. Special thanks to Prairie Grove Battlefield staff Matthew Mulheran and Superintendent Susan Adkins, Prairie Grove Battlefield State Park.



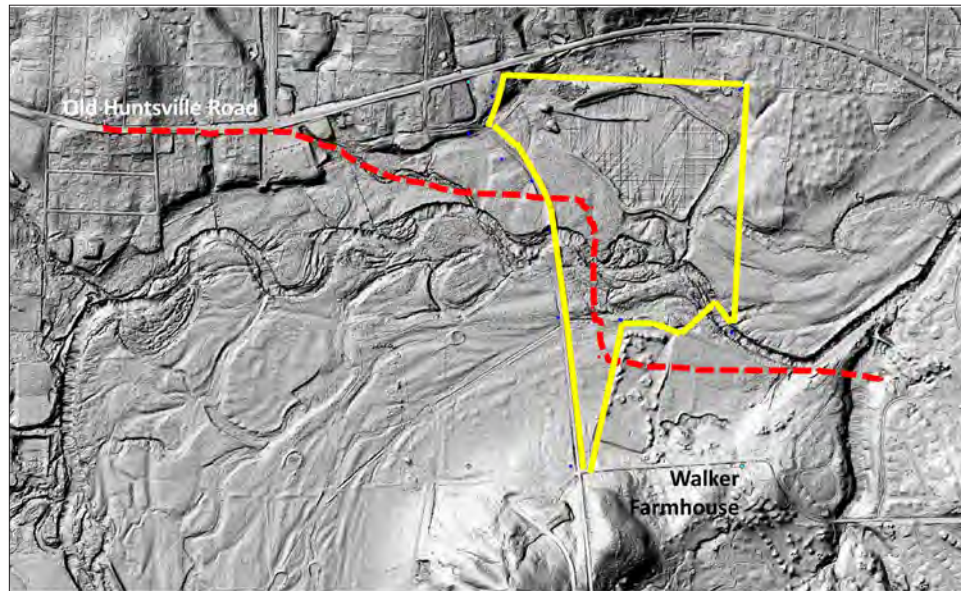
Probable location of Civil War-era trench burials as described in contemporaneous reinterment archives .

University of Arkansas Green Space initiative

- Lockhart is working with a team of University researchers (and Jennifer Ogle, UA Herbarium Collections Manager, and Ammen Jordan, UA Office for Sustainability) to preserve natural and cultural resources on undeveloped UA property south of campus. According to the 1831 GLO survey, the region was largely prairie. Lockhart is working with the team to learn more about the historic farm on a portion of the property first patented ca. 1838. Lockhart has also plotted the course of the long-gone Arkansas Road (prior to 1831) that transected the study area.

Fayetteville Riverine Commons at the Watershed Conservation Resource Center property

- Lockhart and Dr. George Sabo are collaborating with the Watershed Conservation Resource Center, the UA Community Design Center, UA Art School, and the City of Fayetteville to develop a public access master plan for the restoration of a 98-acre riverine wetland landscape along the West Fork of the White River. The funded plan includes a river education center with indoor and outdoor exhibits memorializing Native American riparian lifeways. The Arkansas Archeological Survey will develop programming content memorializing local tribal settlement patterns and their river-based agricultural producing complexes. Lockhart suggests that interpretations of the historic period be included in the educational programming. He is using archival sources such as land patent data, General Land Office surveying notes, population and agricultural census records, as well as historic maps for cultural landscape reconstructions through time. In addition to millennia of use by Native Americans, the study area and surrounds were farmed by the earliest Euroamerican settlers of the area beginning in the 1820s. Judge David Walker (1806-1879), a prominent lawyer, politician, secessionist, and Arkansas Supreme Court justice, owned a 1,000-acre farm that subsumed the study area. Walker also owned enslaved people who worked the farm. Lockhart is proposing that these essential historic Euroamerican and African American lifeways and landscapes be added to interpretations at the

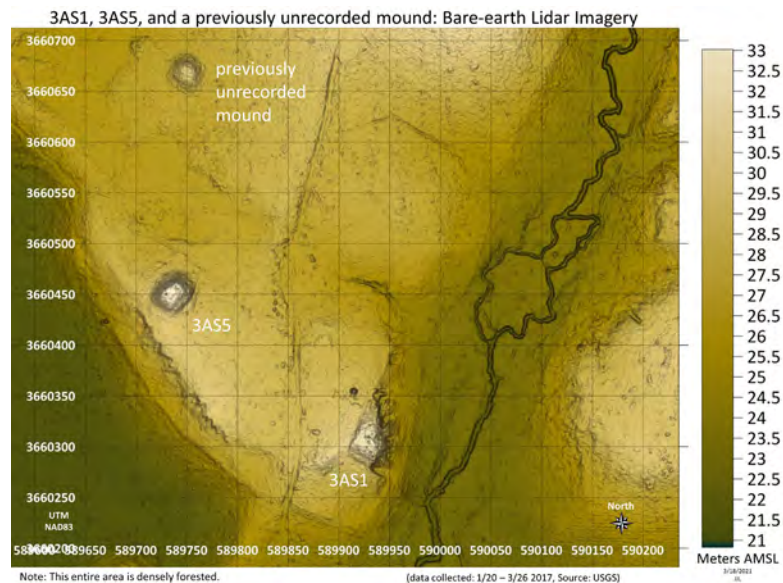


Bare-earth LiDAR imagery for the Fayetteville Riverine Commons at the Watershed Conservation Resource Center property.

planned education center. The study area also includes the (now re-routed) nineteenth-century path of Huntsville Road and Walker Crossing. An even earlier road just south of the study area was present by 1831.

Statewide Archeological Site Map Updates using LiDAR Data

- Lockhart continues to develop high-resolution, 3-D maps and imagery for archeological sites statewide using aerial photos and LiDAR-derived hypsography and topography. He is interpreting these datasets – even in densely forested areas -- to complement hand-drawn site sketches currently included within the AMASDA database. These data are especially important in mapping and monitoring sites that are otherwise inaccessible. The new data provide incomparable analytical information for discovering, measuring, and mapping prehistoric mounds, earthworks, and bluff shelters, as well as historic roads, civil war-related features, former land use, and more. To date, Lockhart has processed and analyzed bare-earth LiDAR data for more than 300 archeological sites and study areas



Sulphur Springs Mound (3AS1) Bare-earth LiDAR used to identify a previously unrecognized mound in a heavily forested area..

Computer Services Program Awards, Service & Outreach

Grants, Honors & Awards

- \$31,452 for the Prairie Grove Battlefield reconnaissance, recovery, and interpretation.
- \$1,934 geophysical survey for ARDOT at 3BE1080.
- A \$2,000 Hester A. Davis Grant for “Advancing Geochemical Analysis of Ancient Plants and Teeth,” Co-PIs John R. Samuelsen and Elizabeth T. Horton.
- A \$2,000 Hester A. Davis Grant for “Soil Contamination and Ancient Tooth Enamel at the Crenshaw Site,” PI John Samuelsen.

Teaching & Higher Ed

- Lockhart serves as Research Faculty in the UAF Department of Anthropology and as Cooperating Faculty in the UA Environmental Dynamics PhD Program.
- Lockhart served on the graduate committee for Jeremy Menzer (PhD, Environmental Dynamics).
- Samuelsen obtained graduate faculty status in the UAF Department of Anthropology.
- Samuelsen served on the master’s thesis committee for Joshua Porter (UAF Department of Anthropology) and collaborated with Porter and Amelia Villasenor (UAF Department of Anthropology) on an isotopic project investigating megafauna ecology. Porter received an NSF Graduate Fellowship to do this work related to strontium isotopes.
- 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.

Service to Host Institution

- With George Sabo, the University Community Design Center, the Watershed Conservation Resource Center, and the City of Fayetteville, Lockhart contributed to a Chancellor’s Innovation and Collaboration Fund grant proposal. The fund is aimed at further developing the university’s signature research areas and its impact as a major research institution.
- Samuelsen assisted Jessica Kowalski’s UAF Field School students on the use of the digital data entry system for fieldwork.
- Samuelsen helped run the ICP mass spectrometer at the UA Stable Isotope Lab (UASIL) and Trace-element and Radiogenic Isotope Lab (TRAIL); Samuelsen helped Adriana Potra (UAF Department of Geosciences) with isotope processing, trace element sample preparation, analysis, and issues related to the Radiogenic Isotope Laboratory.
- Samuelsen helped the UA Museum with data backup related issues
- Samuelsen participated in discussions about a UA System project to identify if specific Bowie knives were made by James Black using isotopic and trace element analyses.

Records & Collections Management

- As ARAS Director of geographic information systems (GIS) research, Lockhart has developed and maintained a statewide GIS, as well as hundreds of high-resolution, site-specific GIS databases over a period of 31 years.
- As the Survey’s Director of Archaeogeophysical Remote Sensing, Lockhart has developed and manages data that precisely locate archeological features associated with more than 200 projects statewide over a period of 20 years.
- Samuelsen maintained existing servers, including a Mac server for ARAS iPads in Apple School Manager program; created an offline backup; conducted database searches and retrieved digital information for the ARAS registrar’s office; helped the ARAS registrar’s office with any problems that occurred with AMASDA; helped staff with web issues or data restoration; purchased, installed, trained users, and maintained a new large format printer/scanner and helped print posters or scan materials as needed; contributed to the development of a statewide Collections Database at the Survey by updating the FileMaker databases that were preventing data entry and access.
- Samuelsen served as a representative for the Survey in our University of Arkansas System IT Audit.

Professional Service

- **ARAS Committees.** Lockhart serves as Chair of the Personnel Committee, which recently completed national search and interviews culminating in the hire of Dr. Melissa Zabecki, State Archeologist; Dr. Jessica Kowalski,

UAF Research Station Archeologist; Dr. Michelle Rathgaber, Educational Outreach; Dr. Paige Ford, Toltec Research Archeologist; Dr. Matthew Rooney, UAM Research Station Archeologist. Lockhart serves on the search committee for ARAS Director. Samuelsen serves on the Web Steering Committee.

- **Peer Review.** Samuelsen served as a reviewer for the *Journal of Archaeological Science*.
- **Consultations & Research.** Lockhart is working with Pea Ridge Park Superintendent Kevin Eads to develop a methodology for processing/interpreting LiDAR data for analyses detailing additional key vicinities associated with the Civil War landscape. Lockhart participated in archaeological testing in preparation for a utility relocation on the Prairie Grove Civil War battlefield. Lockhart worked with ARAS-UAF's Jessica Kowalski, Michael Evans, and Jared Pebworth to provide a geophysical assessment and report for 3BE1080 near the Illinois River where ArDOT is planning a bridge replacement.

Public Service & Outreach

- At the request of family members, Lockhart provided an assessment for the Gray Rock Cemetery relocation. The location commemorates the perseverance of the Byrd family and other formerly enslaved African American families in the area.
- **Preservation Outreach.** Lockhart serves on the Northwest Arkansas Open Space Plan (NWAOSP) Steering Committee. As a GIS and archeological consultant, he assists in land-planning activities aimed at preserving and conserving hundreds of the most significant archeological sites in the fastest growing area of the state. He serves on the planning committee for the Fayetteville Riverine Commons at the Watershed Conservation Resource Center property; volunteers with the Northwest Arkansas Land Trust, which is a non-profit dedicated to the conservation preservation, and permanent protection of land in our area. In discussions with Greg Mayfield of the Pea Ridge Military State Park Foundation, Lockhart provided information for a documentary film highlighting civilian life at the time of the Civil War battle. Lockhart is providing research for the Battle of Fayetteville, AR, including archival research, eyewitness accounts, historic maps, and LiDAR topographic interpretations.
- **Other Outreach.** Samuelsen consulted with the Caddo Tribal Historic Preservation Officer about cultural affiliation and other issues.
- **FANA.** Deborah Weddle serves on the Board of Directors for FANA (the Fan Association of North America), a nonprofit organization that promotes research, education, conservation, and exhibition of hand fans. She provides assistance with identification and conservation to area museums and historical societies, and manages FANA's website and social media. She also served on the Grants Committee.

Service to Arkansas Archeological Society (AAS)

- **Programs & Presentations.** Lockhart contributed to two presentations for the Arkansas Archeological Society Annual Meeting in September 2020: "The Borden House Hillslope: An Important Feature of the Civil War-Era Landscape in Northwest Arkansas" and "A Four-Year Walk in the Park: Surveying the Pea Ridge CESU."



Publications Program

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 for printing and equipment. <http://archeology.uark.edu/learn-discover/publications/>

Publications Committee for 2020–2021: During the first part of the fiscal year, Juliet Morrow (Chair), Emily Beahm, Kathleen Cande, and Deborah Sabo (ex officio) made up the committee. Juliet Morrow resigned, and the committee was reorganized with Emily Beahm (Chair), Kathleen Cande, Andrew Beaupré, Jessica Kowalski, and Deborah Sabo. The committee has a rotating membership of three to five persons, with the senior member each year serving as Chair.

Deborah Sabo (MA, Michigan State University, 1978) is **Publications Editor**. She has been at ARAS since 1999. Prior to that she was a part-time Instructor in the University of Arkansas Department of Anthropology and worked with several UA faculty as Assistant Editor of the journals *Arctic Anthropology* (18 years) and *The Plains Anthropologist* (six years). As ARAS Editor, she carries out all aspects of production in the ARAS publication series: editing, design, layout, file preparation, and production management in consultation with the print shop. Sabo oversees the archive of publication masters and assists with queries about our catalog. She is (*ex officio*) a permanent member of the ARAS Publications Committee. Since 2008 she has served the Arkansas Archeological Society as newsletter editor and as a member of the Executive Board. Ms. Sabo retired from ARAS on June 30, 2021.

Shavawn Smith (ARAS Assistant Director for Financial Affairs), and **Nancy Smith** (Fiscal Support Specialist) handled all the financial aspects of the Publications Program, including inventory management, sales invoicing, and accounting. Shavawn helped us merge our activities into Workday.

Deborah Sabo retired at the end of June 2021 after 22 years at the Survey. Deborah joined ARAS in 1999 as a Survey Research Assistant, helping the Publications Program in various capacities, including development of the organization's Annual Report, and became overall manager of Publications in 2013. A brief summary of Ms. Sabo's career and contributions to the Survey is available at <https://archeology.uark.edu/staff-news/deborah-sabo/>

As ARAS Editor, Deborah worked to revitalize the Publications Program and establish best practices for publishing books in the Research and Popular series. She carried out all aspects of production in the publication series: editing, design, layout, file preparation, and production management in consultation with the PMC print shop on campus. Deborah also served as caretaker of the publication masters archives (physical and digital) and assisted with queries about our books. She performed other editorial tasks for ARAS at the coordinating office and for all ARAS colleagues as needed. Since 2008 Deborah has also served the Arkansas Archeological Society as newsletter editor and as a member of the Executive Board. Following her retirement, Deborah continued helping the Publications Program as a volunteer from July to December to see the RS70 volume through final stages of production. We are immensely grateful to Deborah for her many years of dedicated service and wish her well in her retirement!



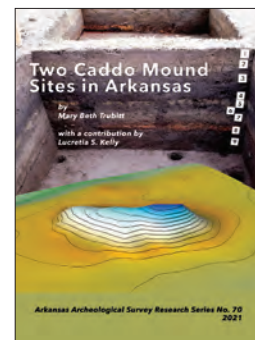
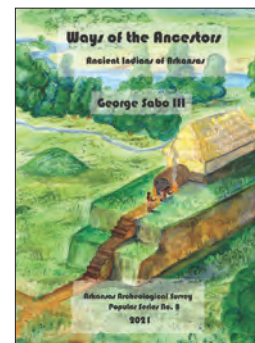
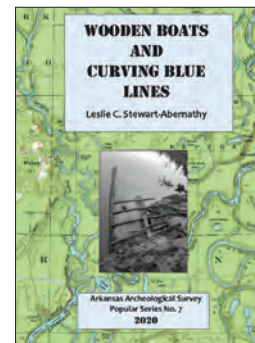
Publications Program Activities

Three new books were published in 2020–2021, two in the Popular Series and one in the Research Series. The latter was brought to near completion and published shortly after the end of FY21.

Wooden Boats and Curving Blue Lines, by Leslie C. Stewart-Abernathy, was published in September 2020 as Popular Series No. 7 (PS07). This slim book, developed from popular public lectures given by the author over several years, presents a brief history of watercraft and water transport in Arkansas from earliest days to the end of the era of wooden-hulled vessels, and a quick overview of the archaeological remains of dugout canoes, barges, flatboats, keel-boats, and steamboats that represent this history. Always interested in boats and underwater archaeology, author Stewart-Abernathy had his first chance to excavate boat wrecks in 1988 at the West Memphis Ghost Boats site (3CT243). Drought caused the Mississippi River to fall to record low levels, exposing an array of wooden wreckage on dry land. Following that extraordinary fieldwork, carried out with the help of volunteers from the Arkansas Archeological Society, Stewart-Abernathy continued to visit and investigate wreckage sites exposed along the riverbanks, and to collaborate with other regional experts, particularly those working for cultural resource firms. As a result, he was able to compile for the public this short introduction to the kinds of underwater cultural resources that embody and reveal our transportation history on the watercourse “highways” that were so important for trade and travel before the advent of railroads and the modern interstate.

Ways of the Ancestors: Ancient Indians of Arkansas, by George Sabo III, was published in April 2021 as Popular Series No. 8 (PS08). An introduction to the story of Arkansas's ancient American Indian inhabitants for general readers was long needed. *Ways of the Ancestors* uses archaeological studies in Arkansas and adjacent areas of the South to reconstruct what life was like for the ancestors of modern American Indians, from the earliest migrations around the end of the Ice Age up to the first encounters with European explorers several millennia later. The book is divided into five chapters: Entry, Settling In, Expanding, Complexity, and Encounters. These chapters correspond to five archaeological periods commonly recognized for the region: Paleoindian, Archaic, Woodland, Mississippi, and Protohistoric. Archaeological sites, artifacts, phases, and cultures in Arkansas are presented to give a general summary of how ancient American Indian societies changed and adapted over approximately 13,000 years. Many of the book's illustrations were provided by the Survey's graphic artist, Rachel Tebbetts. This volume provides a companion to Sabo's *Paths of Our Children: Historic Indians of Arkansas* (PS03).

Two Caddo Mound Sites in Arkansas, by Mary Beth Trubitt, was published in Septem-



ber 2021 as Research Series No. 70 (RS70). This book uses the results of 1973–74 and 2002 excavation projects by the Arkansas Archeological Survey to compare two contemporaneous ancestral Caddo mound sites, Hughes and Hedges, located in the adjacent Ouachita and Saline River drainages of west-central Arkansas. At each site, archaeologists uncovered residues of a series of burned buildings next to the main mound. These structures, and artifacts deposited in and around them, were related to food preparation/consumption and crafting activities that occurred on and near the mounds during the Middle and Late Caddo periods (ca. AD 1200s through 1600s). Chapters summarize excavations at the Hughes and Hedges sites and provide detailed descriptions and comparisons of the recovered ceramics, chipped and ground stone tools, and organic materials. The final chapter discusses the spatial layout of the two communities, interprets the timing and patterning of activities that took place there, and infers cultural connections between them and with neighboring regions.

Survey Books Get Good Reviews

Popular Series No. 6, *Ouachita Mountains Archeology* by Mary Beth Trubitt, was reviewed by Scott Hammerstedt (Oklahoma Archeological Survey), who describes the book as “a masterful use of real archaeological data from local sites to explain to the lay reader the ways in which archaeology works. The copious illustrations complement the text and bring additional life to the volume. I am sorely tempted to use it the next time I teach Introduction to Archaeology, and definitely will recommend it to people who contact me to look at an object that they have found” (*Caddo Archeology Journal* 31:118).

The *LAS Newsletter* of the Louisiana Archaeological Society included a summary of PS06 in their “Books of interest: column (vol. 47, no. 1, p. 21).

Amanda Regnier (Oklahoma Archeological Survey) reviewed RS67, *Research, Preservation, Communication: Honoring Thomas J. Green on His Retirement from the Arkansas Archeological Survey* edited by Mary Beth Trubitt, for the discipline’s main professional journal, *American Antiquity* (vol. 85, no. 2, pp. 398–399). Regnier observes that “The scope of the archaeology essays attests to the wide range of research projects Green supported during his tenure.” Despite the wide range to topics, Trubitt effectively organized the contributions into two main categories. Regnier finds the essays to be of interest well beyond the archaeological community in Arkansas: “This volume will appeal to any archaeologist interested in public archaeology and collaborative research projects, which have long been central to the [Survey’s] mission. The case studies for collaboration can certainly provide inspiration for members of the archaeological community who want to deepen the impacts of their research and involve a wider group of stakeholders in their projects.”

Sales & Distribution

Publication sales and distribution numbered 602 volumes in all series. Overall sales have declined during the pandemic with fewer public in-person events. Conferences where ARAS would normally offer books were cancelled or switched to remote. This number also incorporates volumes given away as complimentary copies—books distributed to colleagues,

Publication Sales and Free Distribution for 2020–2021

No. of Titles	Research Series ¹ (69)	Popular Series ² (8)	Technical Papers ² (2)	Total
Sold/Distributed	263	248	91	602
Gross Sales (\$)	\$6,761.50	\$3,188.50	\$455.00	\$10,405.00
% of Sales	65%	30.6%	4.4%	
Complimentary (\$)				\$1,543.50
Other Discounts				\$485.20
Net				\$8,376.30

¹reflects the total number of titles, but not all are currently available.

teachers, reviewers, libraries and archives, and students.

Our bestselling book in the Research Series continued to be RS44 (*Standards for Data Collection from Human Skeletal Remains*) with 118 units distributed. However, sales of this textbook have declined in the past few years. We have increased the number of our Popular Series books, which serve general audiences as well as students. Distribution of the newer PS titles includes complimentary donations, but we are hopeful that these new volumes will find appreciative audiences.

Administrative Tasks and Program Development

Deborah Sabo worked with the Survey's Administrative Assistant Laura Kowalski, who scanned several older Research Series volumes for the digital archive. New scans of RS18, RS19, and RS26 were made. An older scan of RS29 was discovered in the building and added to the archive. A document listing "All Titles" in the ARAS Publications and their status was periodically revised and shared with co-workers.

Anticipating her retirement at the end of FY2021, Sabo worked to put computer files and backups in order, and to create a "Manual & Guide" for the next ARAS Editor. The Guide, which describes various aspects of the job and procedures for publishing ARAS volumes, was archived into ARAS backup folders, with a printed version in a ring binder for the office. The Publications Program Document (which outlines best practices and procedures for the program) was updated and placed onto the Publications Committee TEAMS. Deborah provided advice for writing a job description for her position and assisted the search committee in preparing to interview candidates.

Annual Report

The ARAS Editor's additional major yearly commitment is to compile, edit, design, and distribute the Survey's Annual Report. This project is comparable to production of a volume of collected papers. Sabo completed the Annual Report for FY 2019–2020, which was printed and distributed early in 2021. Ms. Sabo also reformatted the "Highlights" section of the printed Report for use on the ARAS website.

ARAS Website

As a member of the ARAS Web Steering Committee, Deborah Sabo participated in meetings to discuss improvements to the Survey's website, contributed content, and copy-edited all articles submitted to the website by other ARAS staff. This included 13 entries for the Artifact of the Month series, as well as several items for the Current Research or Dispatches from the Field sections. In 2018, Sabo proposed and helped organize the Survey's first ever recognitions of Black History Month and Women's History Month. Since then, other ARAS staff members, especially the Educational Outreach Coordinators Mel Zabecki and Michelle Rathgaber and Station Archaeologists Mary Beth Trubitt and Juliet Morrow, have carried on these contributions and developed content for Native American Heritage Month as well.

Other Activities

Deborah Sabo performed additional proofreading and editing tasks for as requested. These included posters, leaflets, job descriptions, and ideas for brochures about ARAS Publications. Along with other Survey personnel, she completed various Workday training tasks.

Professional Service

Deborah Sabo served on the ARAS Web Steering Committee, and the ARAS Publications Committee. Meetings were held via Zoom, and other business accomplished in TEAMS.

Public Service Activities

Since 2008, Sabo has served as editor of the Arkansas Archeological Society's newsletter, *Field Notes*, which is published six times per year. As editor, she was a member of the Society's Executive Board, attending all meetings and participating in discussion of AAS matters via email. Deborah completed all issues of the newsletter on schedule for the fiscal year. Following retirement, she continued as editor for the Society and Board member through the end of calendar 2021, completing three additional issues, and updated her Excel spreadsheet of newsletter contents.



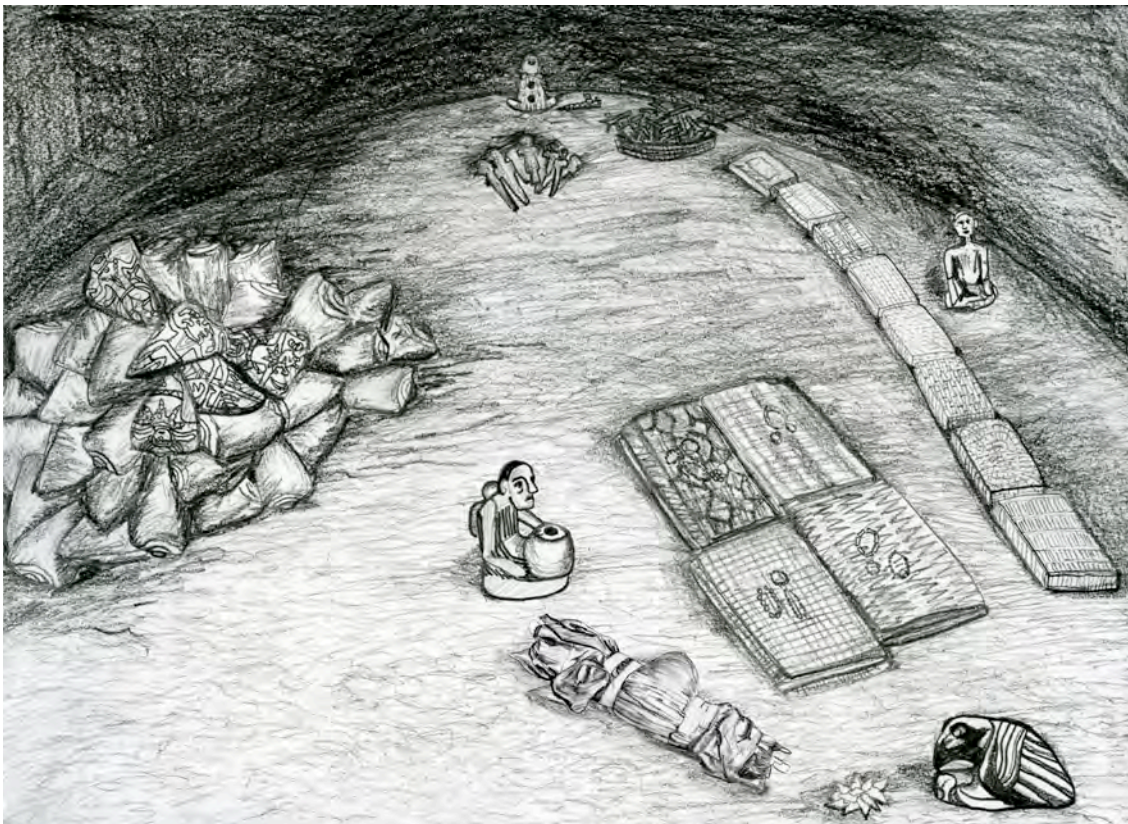
Photographic and Graphic Arts

Photographic and graphic arts support at the Survey includes a darkroom and desktop computer graphic arts facilities. Visual documentation is an essential part of archaeology 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.

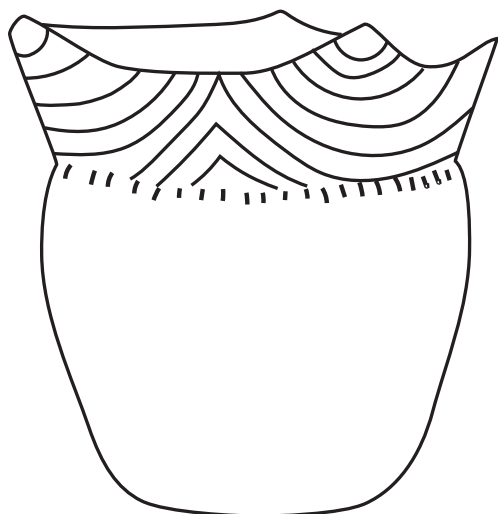
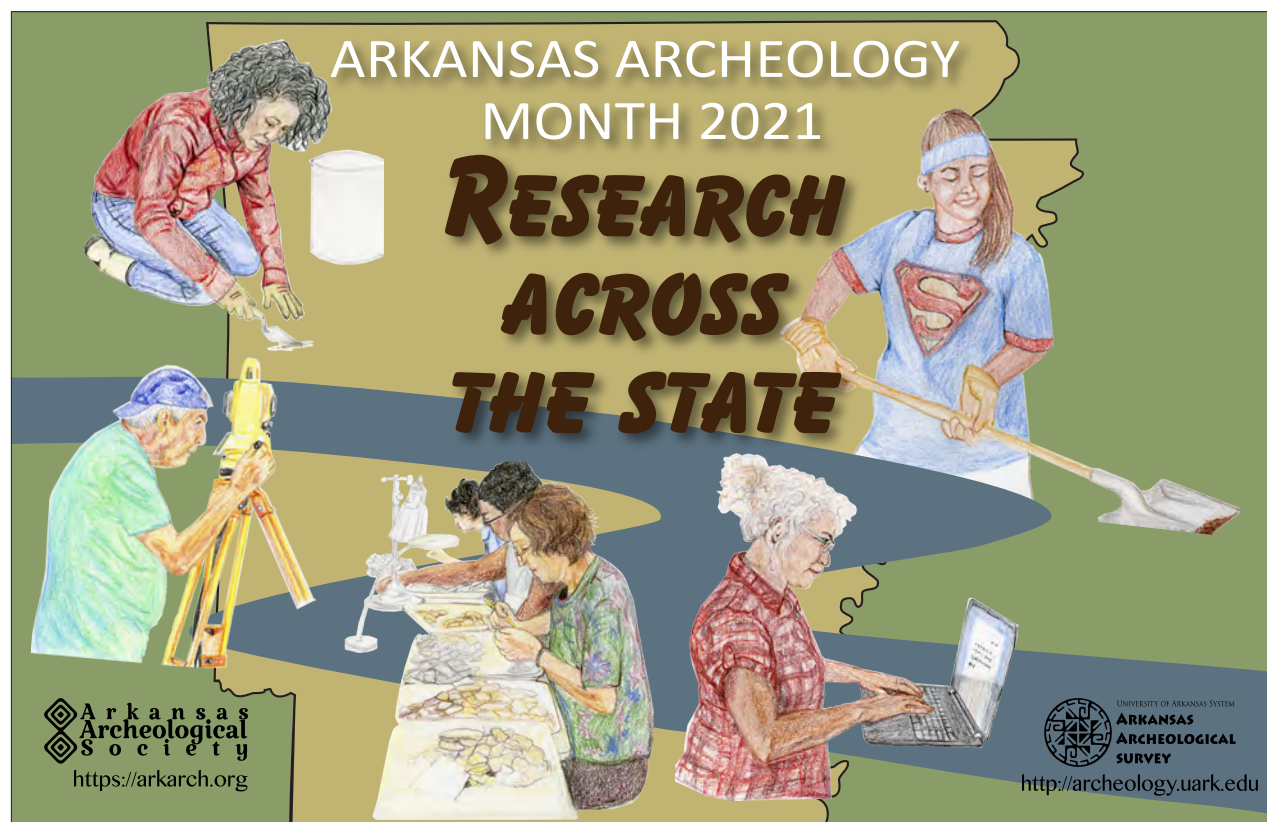
Rachel Tebbetts (BFA, University of Arkansas) has been in the role of Commercial Graphic Artist for the Survey for three years. This has been the most challenging year yet, but she has been able to balance high productivity with daily life during a pandemic. Tebbetts maintains an archive of 35mm black-and-white negatives and digital camera images. She prepares maps, diagrams, illustrations, photographic plates, and graphics for Survey publications, research, staff publications, presentations, and the Survey website. She photographs artifacts and (until the Covid-19 restriction on gatherings) various Survey and Society activities and events, and catalogs the records of the photographs taken. Ms. Tebbetts performs services for the AAS including designing and preparing posters for the Annual Meeting and Archeology month, t-shirt designs and edits, and other graphics as needed. This year, she prepared graphic files for the "Caddo Pottery Design Pattern Book," a project that began with Dr. Ann Early before her retirement and is intended to serve as a reference catalog of Caddo ceramic rim types. Tebbetts regularly sharpens her skills as a professional artist, photographer, and graphic designer through practicing various professional development techniques. Ms. Tebbetts was recently honored to have a drawing of the interior chamber of Spiro Mound displayed at the National Cowboy and Western Heritage museum in Oklahoma City, OK, which she was able to visit before the exhibit went on tour in other states. Rachel looks forward to continuing her work for the Survey in the upcoming year.

2020–2021 Graphic Artist Activities

- 23 videos, produced by Michelle Rathgaber and other survey staff, edited for the public via the ARAS YouTube channel.
- 7 ARAS images, including digital photos and film negatives, scanned and shared with public and/or staff.
- 2 artifacts photographed for Public Archeology and staff.
- 1 large scale drawing of the interior chamber of Spiro Mounds displayed at the National Cowboy and Western Heritage Museum (see below).
- 3 illustrations of Caddo regalia created using the methods of drawing/ painting/ graphic design for an article for publication by George Sabo (see an example on page 108).
- 2 illustrations created using methods of drawing/ painting/ graphic design for articles for publication by George Sabo.
- 3 maps created, plus additional maps edited, for the recent publication, *Ways of the Ancestors* by George Sabo and 1 map for of the De Soto exhibition for publication in an article created for Jeffrey Mitchem
- 2 visual and narrative displays of the timelines of the Prehistoric and Historic phases of Arkansas history for a Native American month exhibit.
- 2 visual and narrative handouts of the timelines of the Prehistoric and Historic phases of Arkansas history for public outreach.
- 2 illustrations designed and/or edited for 2 stories for the Rock Art website.
- 1 flyer created for Public Archeology for the Field School run by Jessica Kowalski.
- 1 poster, 1 license plate, and 1 T-shirt edit made for the Society for 2021 Celebrate Archeology month and volunteer commemoration.
- 4 videos of AAS talks edited for the AAS YouTube channel.







Brevard 1

Above: The 2021 Archeology Month poster designed by Rachel Tebbetts.

Left: Illustration by Rachel Tebbetts for a forthcoming compendium of Caddo pottery patterns by Ann Early and Mary Beth Trubitt.

Facing page: Rachel Tebbetts' paintings of Caddo regalia for an article by George Sabo.



Partners in Preservation: Survey & Society

Many ARAS activities are in cooperation with the Arkansas Archeological Society (AAS), an 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 archaeologists to protect the archaeological heritage of the state, to learn about Arkansas's past, and to present that knowledge to the public. The AAS elects a Board of Advisors who conduct yearly reviews of ARAS goals, accomplishments, and needs. AAS members provide proactive support for the ARAS 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, ARAS and AAS jointly manage a Training Program for amateur archaeologists. It was the first such program in the country and has served as a model for archaeological organizations in other states and around the world. ARAS employs a full-time staff member as liaison with the AAS to facilitate the many aspects of this longstanding relationship and its benefits to Arkansas's citizens and to knowledge of the past.

The Arkansas Archeological Society

Arkansas River Valley Chapter, Russellville
Ark-Homa Chapter, Fort Smith
Central Arkansas Chapter, Little Rock
Central Mississippi Valley Chapter, Jonesboro
Ko-ko-çi Chapter, Fayetteville
Ouachita Chapter, Hot Springs
Red River Chapter, Magnolia
Three Rivers Chapter, Mountain Home
Tunican Chapter, Monticello

AAS Officers & Executive Board, 2021

President: James Rees, Fayetteville
Vice Presidents: Deanna Holdcraft, Little Rock; Steve Longacre, Rogers; Melissa Ray, Scott; Steve Jacober, Trenton, IL
Secretary: Anthony Clay Newton, Magnolia
Chair, Board of Advisors: Gary Knudsen, Russellville
Editors: Glen Akridge, Fayetteville (Bulletin)
& Deborah Sabo, Fayetteville (Newsletter)

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 BA 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. She coordinates many other programs and activities jointly operated by the Survey and Society, such as Archaeology Month and other outreach events. She also maintains and manages Society records and archives, coordinates communications among Executive 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.

Activities at the UAF

- Knapp disseminates information about archaeological learning opportunities and events to the general campus population and helps keep the ARAS coordinating office in touch with the Anthropology Department.

Public Service & Outreach

- Knapp assists the Fayetteville Ko-ko-ci Chapter of the Arkansas Archeological Society on a regular basis with planning and set-up for monthly meetings, publicity and media contacts, flyers and posters, moderating the Facebook group, and creating Facebook events for chapter meetings. Knapp held Ko-ko-ci Chapter meetings via Zoom each month that included guest speakers. Beginning December 2020, she conducted Society statewide Zoom talks, which were advertised widely and brought in attendees from all across the state and the nation. These talks were attended by an average of 30 individuals each time.
- Knapp sent out a call for virtual Archaeology Month programs and distributed the pamphlets and posters to institutions and organizations across the state. She held a special Archaeology Month virtual statewide talk with guest speaker Jim Rees, President of the Arkansas Archeological Society. He presented "The Search for the Missing Drum: A Case Study in Music Archaeology." It was well attended.
- Knapp and State Archaeologist, Mel Zabecki, were interviewed about Archaeology Month by GoodDayNWA, a local TV show. In addition, Knapp was interviewed by the local NPR station about the Society and arranged an interview for Dr. Zabecki as well.



Marilyn Knapp at Training Program headquarters (UACossatot) during summer 2019. Photo by Rachel Tebbetts (ARAS).

Service to the Arkansas Archeological Society (AAS)

- **General Duties.** Knapp maintains the membership records, deposits funds, manages mailing of the newsletter, keeps brochures updated and stocked, and acts as general liaison between Society members, officers, Survey staff, and the general public.
- **Chapters.** Due to the pandemic, Knapp did not conduct the annual chapter compliance updates. Society state-wide talks were held in lieu of individual chapter meetings.
- **Executive Board.** Knapp attends all meetings of the Society's Executive Board as Liaison, assists the President in developing agenda items, maintains contact information, and helps disseminate information to committee members.
- **Training Program.** Unfortunately, the June 2021 Training Program was cancelled due to Covid-19. The cancellation notice was posted on Facebook, the Society's website, and in the newsletter, *Field Notes*.



Basic Excavation seminar in the field during the 2019 Training Program.

AAS 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 archaeologists, discuss the functions and needs of the research stations, and help ensure that the cooperative relationship between Survey and Society moves forward productively. Society member Gary Knudsen is Chair of the BOA Committee.

AAS Chapters

The Arkansas Archeological Society's total membership now averages around 400. Chapters across the state work closely with the Survey archaeologists in their areas. Chapters have monthly meetings with a guest speaker or other program that is open to the public. Survey archaeologists are frequent presenters and often also serve as newsletter editors and program organizers. Survey research stations host volunteer work sessions in their laboratories, and Society members participate in Survey field and lab projects throughout the year.

AAS Volunteers

Many ARAS research projects in the field and laboratory depend on volunteers, mostly Society members, plus students and others. Altogether, volunteers contributed 697.5 hours to archaeological projects across Arkansas in 2020–2021.

AAS Archaeological Research Fund

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

This year's grant requested totaled \$2,404 and ARF had \$8,019 available. Grant recipients, announced at the 2020 virtual annual meeting were Emily Beahm (ARAS-WRI) and Robert Scott (ARAS-UAPB), \$1,800 for Heber Springs Mound (3CE68) AMS dates and macrobotanical analysis; and Tommie Cotton and Mary Beth Trubitt (ARAS-HSU), \$604 for Amos site (3MN62) AMS date.

AAS Annual Meeting

The 2020 meeting was held virtually via YouTube prerecorded videos and information posted on the Society's website on September 26, 2020. Of the 7 scheduled papers, 6 were presented or co-presented by ARAS staff. The presentations were viewed an average of 85 times.



Society members at the 2019 Training Program reception in Hot Springs, Arkansas.

AAS 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 (ARAS Research Assistant and publications editor) is the editor of *Field Notes*. The newsletter prints short articles about archaeological research in Arkansas, information about the Society's statewide activities and business matters, announcements, obituaries, and occasional book reviews. Society member (and past President) Glen Akridge of Fayetteville is editor of *The Arkansas Archeologist*, which is abstracted and indexed by ANTHROPOLOGICAL LITERATURE and EBSCO PUBLISHING, INC.

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 projects.

Archaeology Month – March 2021

Archaeology Month is a multifaceted public education concept to promote awareness and appreciation of Arkansas archeology. The theme each year is Celebrate Archaeology, which allows for flexibility in programming. Marilyn Knapp sends out a Call for Programs, creates a printed events brochure, and works with the poster designer(s) on designing and printing. Marilyn manages a mailing list of the free Archaeology Month materials, and supplies updated information for the web page.

The poster, supported by the Bill Jordan Public Education Fund of the Society, was designed and created this year by Rachel Tebbetts (ARAS Graphic Design Artist) and contained drawings of archaeologists engaged in various archaeo-

logical research tasks.

Due to the pandemic, in-person activities were not planned. Instead, there were 11 virtual talks, 1 outdoor, self-guided tour, and the highly successful Facebook Live sessions taking place 23 times during March, given mostly by staff members of the Survey. These Facebook Live sessions covered many archaeological topics and were viewed over 7,000 times.

“Society Dig”: The ARAS/AAS Training Program

This program is co-managed with the Arkansas Archeological Survey. Every year in June a two-week field school is conducted at an archeological site. The site is chosen according to criteria of ongoing research interests within ARAS, educational potential, and logistical needs. The program requires extensive preparation by Survey staff, along with volunteer Society members, beginning months in advance. Field and laboratory work are supervised by Survey staff, other professionals, and experienced Society members. Survey archeologists and other qualified individuals also teach a series of five-day seminars on various archeological topics during the Training Program. 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 2021 Training Program was cancelled due to continuing Covid-19 concerns.

Plans for 2021: Going Further Into the Native History of the Caddo in Western Arkansas

Fieldwork and Lab Work

The 2021 Training Program, if carried out, would have built upon the work that was done in 2019. The program was cancelled due to the pandemic. Plans for the 2021 Training Program included returning to the UA-Cossatot campus where the field lab, headquarters, seminars, and evening talks would have been held. Besides finishing the remaining artifacts from Holman Springs (3SV29) and new artifacts from 2021 excavations at Lockesburg Mounds (3SV48), lab workers would have processed artifacts from Bayou Sel (3CL27), another major Caddo salt-making site. The 2021 fieldwork would have returned to Lockesburg Mounds, expanding on the work done in 2019. Seminars were to have included Basic Excavation (2), Basic Lab (2), Advanced Lab/Caddo Ceramics, Lithics, and Site Survey. The hope is to return to De Queen, UA-Cossatot, and Lockesburg Mounds in 2022 to continue what was planned this year.

Mary Beth Trubitt (ARAS-HSU) instructs Society members Mark and Lora Shockley on ceramics at the 2019 Training Program.





Society volunteers at the 2015 Training Program at Parkin Archeological State Park.



Society member Gary Knudsen (left) tells young participants from the Thaden School about the goals of excavation during the 2018 Training Program at Pea Ridge National Military Park.

Fiscal & Administrative 2020–2021

Assistant Director for Fiscal Affairs **Shavawn Smith**

The Assistant Director for Fiscal Affairs works with the ARAS Director on annual budget preparation and is responsible for day-to-day management of all fiscal matters. As the chief fiscal officer, she is responsible for all financial reports submitted to the UA System Office, Arkansas Department of Higher Education, and University of Arkansas-Fayetteville Division of Finance and Administration. She administers the financial portions of Survey grants, travel, and purchasing, and provides fiscal affairs training to the employees of the Survey at the annual staff meeting. She also serves as the Arkansas Archeological Survey building executive.

Shavawn Smith (MA, University of Arkansas, 2017) was welcomed as the Survey's new Assistant Director of Fiscal Affairs beginning in March 2020. Smith comes to us from Business Services at the University of Arkansas where she was the Manager of Travel Support for the Travel Office. Before earning her master's degree in English Literature, Smith got her BA in English and Women's Studies from the University of Nevada (2005). She was instrumental in completing our transition to Workday, and ably carries out every responsibility of her position, going the extra mile to help staff understand all of the new procedures. Due to her love of travel, Shavawn maintains a collection of rocks brought to her from other's adventures, with the conceit that she will some day return each of them to their respective origins. Shavawn's master's thesis is titled "We Can Come Back From This: Navigating the Perils of the Anthropocene in The Walking Dead." She maintains wildly varied interests and is excited to learn interesting things from her new ARAS colleagues.

Fiscal Support Analyst **Nancy Smith**

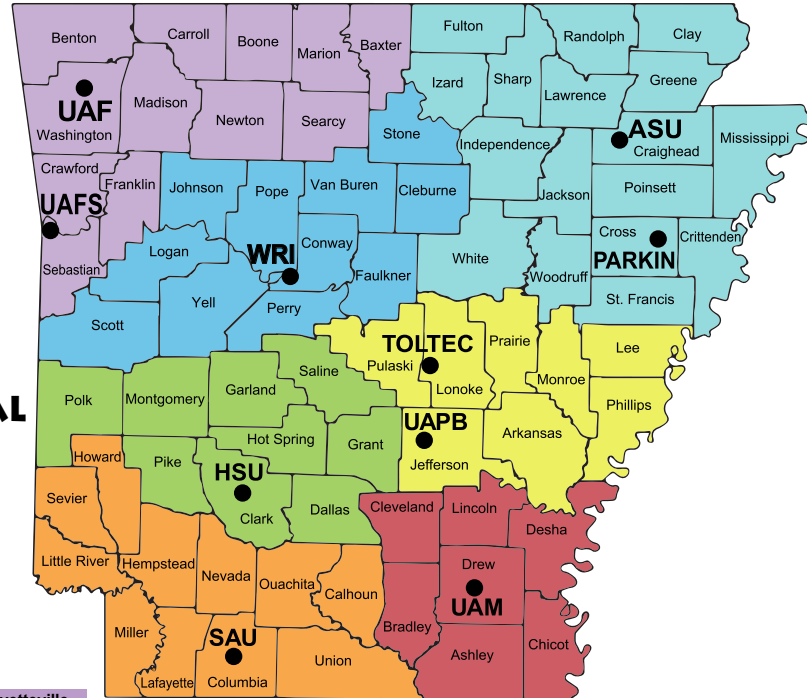
Nancy Smith has been with the Survey since November 2014, initially as an Administrative Assistant. She moved to her current position of Fiscal Support Analyst in May 2020. Nancy Smith works closely with Shavawn Smith to perform a variety of fiscal-related tasks such as analyzing and processing accounts payables, accounts receivables, and procurement transactions for all research stations and the CO for monthly reporting. For the Publications Program, she monitors the inventory, processes orders, and creates deposits for all receivables coming into the coordinating office. Nancy Smith acts as timekeeper for hourly employees' time and wage rates, reports on vehicle fleet usage and expenses, including registrations for 16 assigned motor-pool vehicles. Monthly reports are sent to the university and state. She assists the UAF campus Property Accounting Office by ensuring all capital property assets have been tagged and accounted for as required by the university. When the equipment is no longer of use to the Survey she initiates the process to surplus and dispose of the equipment within the university system operations.

Administrative Specialist II **Laura Kowalski**

Laura Kowalski has been with the Survey since May of 2019 as an Administrative Specialist II. She has educational degrees in Business Administration and Veterinary Science Technology. She comes to the Survey from New York with a background in Corporate Retail and Animal Welfare. In her role, Laura Kowalski is responsible for duties such as scanning and uploading records for the AMASDA database, ordering supplies, and greeting and directing members of the public to the appropriate Survey personnel.

How to Contact the Arkansas Archeological Survey

<http://archeology.uark.edu>



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Toltec Mounds Archeological State Park

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SAU: Southern Arkansas University

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July 2021

For the ARAS Director, State Archeologist, and
all Coordinating Office units (Registrar, CSP,
SRP, Society Liaison, Educational Coordinator,
Publications, Graphic Artist):

Arkansas Archeological Survey
2475 N. Hatch Ave.
Fayetteville, AR 72704
(479) 575-3556

Appendix 1. Reports & Publications by ARAS Staff during 2020–2021*

ARAS Staff

- 2020 Interpreting the Hodges Collection at the Henderson State University Caddo Center. Electronic document online at <https://archeology.uark.edu/hodges/>.
- Baires, Sarah E., **Jodi A. Barnes**, **Emily L. Beahm**, Elizabeth T. Horton, Maureen S. Meyers, Erin S. Nelson, Tanya M. Peres, Grace R. Riehm, Allison M. Smith, Karen Y. Smith, Karen A. Stevens.
- 2020 Introducing the Re-Centering Southeastern Archaeology-An Equitability Project. *Horizon and Tradition: Newsletter of the Southeastern Archaeology Conference* Vol. 62, Issue 2, pp. 10-13.
- Barnes, Jodi
- 2020 Behind the Scenes of Hollywood: The Archaeology of Reproductive Oppression at the Intersections. *American Anthropologist*. <https://anthrosource.onlinelibrary.wiley.com/doi/abs/10.1111/aman.13511?af=R>
- Beahm, Emily L.
- 2020 Mount Nebo: Archeology of a Resort Town. *Field Notes, Newsletter of the Arkansas Archeological Society* Vol. 416 September/October, pp. 3-8.
- 2020 Interpreting Imaginary Cultures: The Project Dig Program. *Field Notes, Newsletter of the Arkansas Archeological Society* Vol. 415 July/August, pp. 3-7.
- 2021 Basketry Impressed Base Sherd from Heber Springs. Artifact of the Month for March 2021. Electronic document online at <https://archeology.uark.edu/artifacts/basketry-impressed-base-sherd/>
- Beaupré, Andrew
- 2021 “The Jesuit mission proves we were here”: The Case of Eighteenth-Century Jesuit Missions Aiding Twenty-First Century Tribal Recognition. *Journal of Jesuit Studies* 8(3): 454-473. doi: <https://doi.org/10.1163/22141332-0803P006>
- 2021 Boyd’s Porcelain Lined Canning Jar Lid. Artifact of the Month for April 2021. Electronic document online at <https://archeology.uark.edu/artifacts/canning-jar-lid/>
- Brown, James A., Alex W. Barker, and **George Sabo III**
- 2020 The Spirit Lodge, Spiro Ritual, and Cosmic Renewal. In *Recovering Ancient Spiro: Native American Art, Ritual, and Cosmic Renewal*, edited by Eric D. Singleton and F. Kent Reilly III, pp. 92-113. National Cowboy & Western Heritage Museum, Oklahoma City.
- Cande, Kathleen
- 2020 Rouen Blue on White Faience from Arkansas Post. Artifact of the Month for December 2020. Electronic document online at <https://archeology.uark.edu/artifacts/rouen-faience/>
- Chick, Jonathan, Sydney E. McKim, Adriana Potra, Walter Manger, and **John R. Samuelsen**
- 2021 Radiogenic Pb Enrichment of Mississippi Valley-Type Metallic Ore Deposits, Southern Ozarks: ConstraintBased on Geochemical Studies of Source Rocks and Their Diagenetic History. *Geosciences* 11(4): 172. doi:10.3390/geosciences11040172
- Cotton, Tommie, and Mary Beth Trubitt
- 2020 Archeology at Amos (3MN62), 1976 and 2020. *Field Notes, Newsletter of the Arkansas Archeological Society* 415:8–11.
- Drexler, Carl
- 2021 A Cherokee Button from Southwest Arkansas. Artifact of the Month for February 2021. Electronic document online at <https://archeology.uark.edu/artifacts/cherokee-button/>
- Early, Ann M. and **Mary Beth D. Trubitt**
- 2021 Caddo Ceramics in the Ouachita River Basin in Southwestern Arkansas. In *Ancestral Caddo Ceramic Traditions*,

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

edited by Duncan P. McKinnon, Jeffrey S. Girard, and Timothy K. Perttula, pp. 71–92. Louisiana State University Press, Baton Rouge.

Fiedel, Stuart, Ben A. Potter, **Juliet E. Morrow**, Michael K. Faught, C. Vance Haynes Jr., and James C. Chatters

2020 Pioneers from Northern Japan in Idaho 16,000 Years Ago? A Critical Evaluation of the Evidence from Cooper's Ferry. *PaleoAmerica* 6(4):1-15.

Kowalski, Jessica, Jared Pebworth, Jami Lockhart, and Michael Evans

2020 Prairie Grove Battlefield State Park Borden House Hillslope Investigation, Washington County, Arkansas. Report prepared for the Arkansas Department of Parks, Heritage, and Tourism.

Kowalski, Jessica, and Jared Pebworth

2020 Elongated Balls from the Battle of Prairie Grove. Artifact of the Month for October 2020. Electronic document online at <https://archeology.uark.edu/artifacts/prairegrovebattle-elongatedballs/>

Lockhart, Jami J., and Jessica A. Kowalski

2020 Technical Summary of a Gradiometer Survey within Archeological Site 3BE1080, Benton County, Arkansas. Submitted to the Arkansas Department of Transportation. Arkansas Archeological Survey, Fayetteville, AR.

Morrow, Juliet E. and Mary Beth Trubitt

2021 Paleoindian and Archaic Use of Novaculite: A Useful Toolstone from the Ouachita Mountains. *Memphis Archaeological and Geological Society Rockhounds News* 67(7):3-7.

Morrow, Juliet E., and Megan Steed

2021 Nicotine use at the Cherry Valley site (3CS40), a transitional Mississippi period Native American mortuary site. *Field Notes, Newsletter of the Arkansas Archeological Society* 419:9-12.

Porter, Larry

2020 Notched Stone Net Sinkers. Artifact of the Month for November 2020. Electronic document online at <https://archeology.uark.edu/artifacts/netsinkers/>

Rathgaber, Michelle

2021 Milk Creek Chert Hoe Re-Sharpening Flake. Artifact of the Month for January 2021. Electronic document online at <https://archeology.uark.edu/artifacts/millcreekchert-hoe-flake/>

Sabo, George III

2021 *Ways of the Ancestors: Ancient Indians of Arkansas*. Popular Series No. 8. Arkansas Archeological Survey, Fayetteville.

2021 Caddo Regalia in Context: Historic and Ethnographic Examples. In *Mississippian Culture Heroes, Ritual Regalia, and Sacred Bundles*, edited by David H. Dye, pp. 315-330. Lexington Books, Lanham.

Sabo, George III, Mary Beth Trubitt, and Kathy Cande

2020 Ann M. Early ARAS Career Highlights. Electronic document online at <https://archeology.uark.edu/staff-news/ann-early-career/>.

2020 Ann M. Early: Career Highlights. *Field Notes, Newsletter of the Arkansas Archeological Society* 417:11–13.

2021 Ann M. Early's Contributions to Caddo Archeology. *Caddo Archeology Journal* 31:5–10.

Samuelsen, John R. and Margaret Guccione

2021 Fluvial Sequencing and Caddo Landscape Modification at the Crenshaw Site (3MI6). *Caddo Archaeological Journal* 31:34-56.

Trubitt, Mary Beth

2020 Thoughts on African American Heritage and Archeology in Arkansas. Electronic document online at <https://archeology.uark.edu/african-american-heritage-and-archeology-in-arkansas/>.

2020 Ear Ornaments from the Standridge Site. Artifact of the Month for September 2020. Electronic document online at <https://archeology.uark.edu/artifacts/ear-ornaments-standridge/>.

2020 Reflections of the Outgoing Journal Editor. *Horizon & Tradition (e-newsletter of the Southeastern Archaeological*

- Conference*) 62(2):6–8. <https://www.southeasternarchaeology.org/wp-content/uploads/SEAC-Newsletter-Fall-2020final.pdf>.
- 2021 Interpreting the Hodges Collection and Caddo History for the Public. *Field Notes, Newsletter of the Arkansas Archeological Society* 418:3–6.
- 2021 Arrow Points and Other Small Stone Objects from Spiro. In *Recovering Ancient Spiro: Native American Art, Ritual, and Cosmic Renewal*, edited by Eric D. Singleton and F. Kent Reilly III, pp. 206–217. National Cowboy & Western Heritage Museum, Oklahoma City.
- 2021 Improving your Archaeological Skills: How to Write Better Technical Reports. *The SAA Archaeological Record* 21(2):56–61. <http://onlinedigeditions.com/publication/?m=16146&i=700116&p=58>.
- Trubitt, Mary Beth**, and John H. House
- 2020 Ceramic Vessels from Eastern Arkansas in the Joint Educational Consortium's Hodges Collection. *The Arkansas Archeologist* 58:43–67.
- Trubitt, Mary Beth, and Rachel Tebbetts
- 2021 Dr. George Sabo III: On His Retirement. *Field Notes, Newsletter of the Arkansas Archeological Society* 421:3–11.
- Trubitt, Mary Beth, Jami J. Lockhart**, and Vanessa N. Hanvey
- 2021 Investigating a Caddo Mound Site in the Ouachita River Valley. *Caddo Archeology Journal* 31:22–33.

Appendix 2. Papers, Symposia & Workshops by ARAS Staff during 2020–2021*

- Beahm, Emily L.
- 2021 Working Toward a Safer and More Inclusive Field School. Invited talk for Workshop. Anthropology Field Research and Diversity & Inclusion: Perspectives in Archaeology, Biological Anthropology, and Cultural Anthropology. March 29th, 2021.
- Beaupré, Andrew R.
- 2021 The Creole Village: 'French' Culture in the 19th Century Trans-Mississippi South. Invited paper presented at the virtual 54th Annual Conference on Historical and Underwater Archaeology.
- Colaninno, Carol E., **Emily L. Beahm, Carl G. Drexler**, Shawn P. Lambert, and Clark Sturdevant.
- 2020 Preventing and Reducing Occurrences of Sexual Harassment and Assault at Archaeological Field Schools. Presented at the virtual 2020 Public Summit of the National Academies of Science, Engineering, and Medicine Action Collaborative on Preventing Sexual Harassment in Higher Education, October 19, 2020.
- 2021 Improving Equity, Access, and Professionalism at Archeological Field Schools Through the Prevention and Reduction of Sexual Harassment and Assault. Presented at the virtual 86th Annual Meeting of the Society for American Archaeology Presidential Session: What is at Stake? The Impacts of Inequity and Harassment on the Practice of Archaeology, April 15, 2021.
- Drexler, Carl G., and Jami J. Lockhart
- 2020 A Four-Year Walk in the Park: Surveying the Pea Ridge CESU. Paper presented at the annual meeting of the Arkansas Archeological Society. Hot Springs, Arkansas
- Kowalski, Jessica J., Jared Pebworth, Michael Evans, and Jami J. Lockhart
- 2020 The Borden House Hillslope: An Important Feature of the Civil War-Era Landscape in Northwest Arkansas. Paper presented at the annual meeting of the Arkansas Archeological Society. September.
- Sabo, George III
- 2021 Field Research with Indigenous Communities: How I Learned to Hunt, Drum, and Sing (after a fashion). Fulbright College Geosciences Spring 2021 Colloquium Series (February 26, 2021; audience 45)

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

Samuelsen, John R.

2021 An Isotopic Assessment of Late Prehistoric Interregional Warfare in the Southcentral US. Presented at the 86th Annual Meeting of the Society for American Archaeology, April 15th-17th.

Smith, Zachary J., M. Tyler Kee1, Erik D. Pollock, Barry J. Shaulis, **John R. Samuelsen**, Adriana Potra, and Laura S. Ruhl

2020 Quantifying the Impact of Urbanization on the Fourche Creek Watershed, Little Rock, AR. Presented at the Geological Society of America Annual Meeting, October 26th-30th.

Trubitt, Mary Beth

2020 Improving Your Archaeological Skills: How to Write Better Technical Reports. Society for American Archaeology Online Seminar, December 15, 2020 (recording linked as a publicly-available seminar at <https://www.saa.org/career-practice/online-seminars/past-seminars>).