Office of the State Archaeologist, The University of Iowa, Annual Report for Fiscal Year 2015

Office of the State Archaeologist, University of Iowa

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The Year in Review
OSA mission statement, academic activities, staff achievements, Shirley Schermer retirement, annual work plan accomplishments, and plans and prospects for FY 2016.

By the Numbers
An overview of FY 2015 through numbers and charts.

Student Success
Thirty undergraduate students and one high school student were involved in various OSA archaeological and related research and repository activities over the course of the fiscal year.

Research
The OSA conducts a wide range of research activities to discover the archaeological and architectural history of Iowa and surrounding midcontinent over the last 13,000 years.

Bioarchaeology
In FY 2015, to more clearly communicate the OSA’s responsibility to protect all ancient human remains in Iowa, we initiated an emphasis on bioarchaeology.

Education & Outreach
The OSA provides resources and opportunities that encourage the understanding, appreciation, and stewardship of Iowa’s archaeological past.
OSA Mission
The position of State Archaeologist was established in 1959. Read the entire mission statement. Read more about: Advisory Committee Indian Advisory Council

Academic Activities
University of Iowa adjunct faculty at OSA taught four undergraduate courses during FY 2015.

Staff Achievements
Two book publications, STEM and design awards, and a new Research Associate.

Shirley Schermer Retires
Shirley Schermer’s history with the University of Iowa and OSA dates to her admission to the graduate program in Anthropology in 1980.

FY 2015 Annual Work Plan
Accomplishments
In FY 2015, the OSA continued energetically pursuing research, education and outreach, and service activities throughout Iowa, the surrounding region, and internationally.

FY 2016 Plans and Prospects
For FY 2016, the OSA has established 18 specific objectives.

Nuts and Bolts for FY 2015
Organization chart; financial details; strategic plan 2010–2016; and listings of OSA’s public presentations, papers presented at professional meetings, publications, service, and technical reports.
Academic Activities

First-Year Seminar: Archaeology (Honors)
Course explored Iowa Archaeology, investigating 13,000 years of settlement by native and later non-native peoples. Emphasis on visits to working archaeology labs on UI campus and hands-on experience with prehistoric stone tools, animal bones, and pottery.
Fall 2014
9 students

Cultural Resource Management (CRM) Archaeology: Practice and Practicalities
Students explored legal, ethical, and project management day-to-day practical concerns in CRM.
Spring 2015
14 students

Field Archaeology
Iowa Lakeside Laboratory
Summer 2015
7 students

Archaeology of the Middle East
Course provided an overview of prehistoric and early historic archaeology of the Middle East; questions that underpin archaeological narrative for the region from its initial peopling through city-states and imperial formations.
Fall 2014
7 students

Society and Educational Applications of Chemical Concepts (Leslie Flynn, Instructor)
Class project with Flynn’s College of Education students who worked with industry partners to develop an exhibit-based curricula for the Mobile Museum’s exhibit Water Underground: The Science of Iowa’s Most Essential Resource.
Spring 2015
7 students
Staff Achievements

Book Publications

The Archaeological Guide to Iowa

William Whittaker, Lynn Alex, and Mary De La Garza collaborated to produce The Archaeological Guide to Iowa which was published by UI Press in March of 2015. This special volume is an ideal companion for anyone traveling the state of Iowa and interested in learning more about the past. “The Guide” beautifully complements Lynn’s comprehensive work Iowa’s Archaeological Past (UI Press, 2000) by providing highly accessible but carefully researched briefs on some of the most important of Iowa’s archaeological sites that can be readily visited and appreciated by the public.

Dubuque’s Forgotten Cemetery

Robin Lillie and Jennifer Mack utilized a UI Arts & Humanities Initiative grant to complete their book entitled, Dubuque’s Forgotten Cemetery: Excavating a Nineteenth-Century Burial Ground in a Twenty-First Century City which was published by UI Press in April 2015. As described by Michael D. Gibson, Director, Loras College Center for Dubuque History, “This pivotal book unravels much of the mystery behind a forgotten historic cemetery in Iowa’s oldest community. Well researched, insightful, sensitive, and with an engaging narrative, it is a work that deserves to be read by anyone interested in history, archaeology, and the evolution of cemeteries in our society.”

New Research Associate

Shirley Schermer was named an OSA Adjunct Research Associate following her retirement from the OSA, joining fellow adjunct researchers Joe Tiffany, Lynn Alex, and Jim Collins in this new status. All four OSA adjuncts continue their involvement with Iowa archaeological research and serve as valuable resources for OSA staff.

Awards

STEM Award

The OSA was awarded a Seal of Approval from the Governor’s STEM Advisory Council for Exploring Iowa Archaeology in the K-12 Classroom.

Design Award

The UI Dare to Discover Mobile Museum was recognized at the beginning of FY 2015 (the end of the first season on the road) with a “Silver” American Advertising Award from the American Advertising Federation’s Cedar Rapids-Iowa City section for the uniqueness of the concept and high-impact visuals on the exterior of the 38-foot custom Winnebago RV. OSA along with the UI Pentacrest Museums are the managing partners for the Mobile Museum and OSA’s Angela Collins contributed to the exterior graphics executed by Benson & Hepker Design and installed by Presentations, Inc.

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Shirley Schermer’s history with the University of Iowa and Office of the State Archaeologist dates to her admission to the graduate program in Anthropology in 1980. She was a departmental research assistant her first year and began work in 1981 at OSA as an hourly employee. In 1982 she completed her Master’s degree and in October 1983 was hired as a permanent salaried OSA staff member. Shirley worked for State Archaeologist Duane Anderson and Physical Anthropologist Alton K. Fisher through most of the 1980s, gradually assuming more and more responsibility for directing the OSA Burials Program and consulting with the Indian Advisory Council. Under State Archaeologist Bill Green, Shirley assumed the formal leadership role for the Burials Program, which she directed through her retirement on August 1, 2014.

In addition to the thousands of individual burial projects with which Shirley was involved in her career, she played a key part in several significant research efforts. During 1985–1986 she was co-principal investigator and co-director of field school investigations at the Blood Run site (13LO2), Lyon County, Iowa beginning what became a career-long effort to insure the long-term preservation of this National Historic Landmark. Shirley also worked closely with Joe Tiffany and Deb Zieglowsky Baker documenting archaeological sites in the Charles R. Keyes Collection, an effort they published in 1990 in the Journal of the Iowa Archeological Society. Shirley organized and directed the University of Iowa Native American Graves Protection and Repatriation Act (NAGPRA) compliance activities in the 1990s and also provided expertise to the State Historical Society of Iowa and other Iowa institutions in their efforts to comply with this important federal legislation. Shirley’s NAGPRA-related work continued and she worked with State Archaeologist Beth Pauls in 2004–2006 as co-principal investigators on a National Park Service–funded effort involving consultation to design and foster a process for the disposition of unaffiliated human remains. In the last few years before her retirement, Shirley provided much needed expertise to the National Park Service conducting skeletal analyses of materials from Effigy Mounds National Monument.

Throughout her career, Shirley was active in public education, both about the Iowa laws protecting ancient human remains and about the importance of protecting archaeological resources of all types. Shirley served as Society for American Archaeology Education Network Coordinator for Iowa (1995–2003) and member of the SAA Public Education Committee (1998–2008, 2011–2012). Shirley played an active role in the creation and preservation of state preserves in Iowa, serving on the State Preserves Advisory Board (1991–1998; chairperson, 1993–1997) and then continuing for many years in the role as archaeological advisor to the Board. The Iowa Archeological Society awarded Shirley the Keyes-Orr Award in 1995.

On July 23, 2014, the OSA Indian Advisory Council held a meeting at the Meskwaki Tribal Museum, and the members marked the occasion by thanking Shirley for her leadership role in respectful treatment of human remains. She was presented with a beautiful basswood spoon carved by Luke Kapayou, and the name the Meskwaki long ago bestowed on Shirley, “Mamidi ikwe” (meaning honored-woman-ceremonial attendant-caretaker-grave digger) was revealed. Council member Suzanne Wanatee Buffalo later shared that Shirley is “a fantastic woman [who] deserves to be recognized for her professional contributions and good heart!” Suzanne also agreed that the Meskwaki enjoyed a very high level of trust with Shirley—and thus by extension, the OSA—and the Tribe has been very grateful for Shirley’s leadership in the protection of ancient human remains in Iowa, saying “I think the words you came up with are wonderful and accurately summarize everyone’s sentiments! Ketebi (thank you).”

In retirement, Shirley continues work on several projects relating to Iowa bioarchaeology as an OSA adjunct research associate while also enjoying traveling with husband Doug and keeping up with their grandchildren.

Congratulations on retirement, Shirley!
FY 2015 Annual Work Plan Accomplishments

In FY 2015, the OSA continued energetically pursuing research, education and outreach, and service activities throughout Iowa, the surrounding region, and internationally. In the process, the OSA continued engaging with a wide variety of publics in and outside of Iowa.

For FY 2015, the OSA established 20 specific objectives reflecting goals identified in OSA’s Strategic Plan: 2010–2016 (see Appendix A). These objectives are designed to focus OSA staff energy toward contributing to UI’s efforts to be a leading public research university while cost-efficiently maximizing the development, dissemination, and preservation of knowledge of Iowa’s human past. The specific objectives were:

1. Offer a fall 2014 First-year Seminar honors section entitled Archaeology which engages participating students in current research at the OSA and Macbride Hall (Anthropology and Museum of Natural History) archaeological laboratories. Successful.


3. Utilize OSA resources to offer undergraduate and graduate students research and employment opportunities including as volunteers, workstudy students, research assistants, and interns, and mentor graduate students in Anthropology—especially those working on a Master’s degree specialization in Cultural Resource Management archaeology. Successful.

4. Continue to extend the impact of the OSA’s various social media efforts, such as Facebook, Twitter, Tumbler, and Instagram, to further increase the number of followers and timely dissemination of information on Iowa archaeology topics. Successful.

5. Complete the Palace site (13PK966) final report for Section 106 compliance purposes and initiate publication plans for broader professional and public dissemination. Successful.

6. Complete a national search for a Bioarchaeology Director to replace retiring director Shirley Schermer. Successful.

7. Submit a response coordinated with the University administration to the United States Army Corps of Engineers concerning OSA becoming a regional curation facility. Successful.

8. Collaborate with the UI Pentacrest Museums and other campus partners in developing the calendar year 2015 edition of the UI “Dare to Discover” Mobile Museum. Successful.

9. Continue to provide high quality statewide osteological services to the State Medical Examiner’s Office and law enforcement personnel as needed. Successful.

10. Complete archaeological field excavations within the UI Hubbard Park area as part of mitigation of adverse effects stemming from FEMA-funded flood recovery construction and complete lab, reporting, and public dissemination activities for these materials as well as those recovered the previous year from the new UI School of Music construction location. On-going.

11. Complete the third year of the funded SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act) Transportation Enhancement Grant Program award “Bringing the Glenwood Culture to Iowans: Research, Publication, and Engagement on Archaeological Sites Excavated by The Iowa Department of Transportation.” On-going.

12. Complete the funded Statewide Transportation Alternatives Program project: “Documenting Iowa’s Pre-Settlement Roads and Trails” and extend planning for a web-based “Ancient Trails of Iowa” heritage tourism project that combines the best of Iowa statewide tourism linked to historical architecture, landscapes, and archaeological sites. On-going.

13. Continue to conduct high quality archaeological, architectural history, and osteological research for regional, national, and international grant and contract-funded sponsors as staff expertise and opportunity permits. Successful.


15. Offer a fall 2014 course, “Middle Eastern Archaeology,” through the Department of Anthropology to graduate and undergraduate students to enhance their understanding of this vibrant culture area. Successful.

16. Continue initiatives in international cooperative research including lithic microwear and osteological projects. Successful.


18. Submit for publication at least 10 journal articles and book chapters, including to peer-reviewed journals, and continue contributions to newsletters, online websites and wikis to improve the dissemination of information about the significance and value of Iowa’s past. Successful.


20. Complete negotiations with local and national partners to secure funding to support purchase by a historic preservation-oriented entity of the Fort Madison battlefield site (13LE10) area located in the eastern half of the 400 block of Avenue H. Successful.
FY 2016 Plans and Prospects

In FY 2016, the OSA will continue energetically pursuing research, education and outreach, and service activities throughout Iowa, the surrounding region, and internationally. In the process, the OSA will continue engaging with a wide variety of publics in and outside of Iowa. For FY 2016, the OSA has established 18 specific objectives which reflect goals identified in OSA’s Strategic Plan: 2010–2016 (see Appendix A). These objectives are designed to focus OSA staff energy toward contributing to UI’s efforts to be a leading public research university while cost-efficiently maximizing the development, dissemination, and preservation of knowledge of Iowa’s human past. The specific objectives are:

1. Offer a fall 2015 First-year Seminar section entitled Bioarchaeology which engages participating students in current research at the OSA and Department of Anthropology.

2. Reorganize the OSA research activities to adjust to the departure of Melody Pope for a position at Indiana University.

3. Utilize OSA resources to offer undergraduate and graduate students research and employment opportunities including as volunteers, work-study students, research assistants, and interns, and mentor graduate students in Anthropology—especially those working on a Master’s degree specialization in Cultural Resource Management archaeology.


5. Continue consultation and direct testimony activities for the Dakota Access Pipeline Project with the Iowa Utility Board, State Historic Preservation Office, Rock Island District Corps of Engineers, Sierra Club, and tribal partners to insure the greatest possible adherence by this large-scale project with the Association of Iowa Archaeologists “Guidelines for Archaeological Investigations in Iowa.”

6. Initiate development of the OSA 2016–2022 Strategic Plan in coordination with University of Iowa Strategic Plan updates.

7. Continue to extend the impact of the OSA’s various social media efforts, such as Facebook, Twitter, Tumbler, and Instagram, to further increase the number of followers and timely dissemination of information on Iowa archaeology topics.

8. Continue to conduct high quality archaeological, architectural history, and osteological research for regional, national, and international grant and contract-funded sponsors as staff expertise and opportunity permits.


10. Coordinate with Iowa State University, the State Historic Preservation Office, University of Iowa administration, and the United States Army Corps of Engineers concerning long-term planning for archaeological curation.

11. Collaborate with the UI Pentacrest Museums and other campus partners in developing the calendar year 2016 edition of the UI “Dare to Discover” Mobile Museum.

12. Continue to provide high quality statewide osteological services to the State Medical Examiner’s Office and law enforcement personnel as needed.

13. Complete lab, reporting, and public dissemination activities for materials stemming from FEMA-funded flood recovery archaeological excavations at the new UI Voxman School of Music construction location.

14. Complete the reporting and educational outreach products associated with the funded SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act) Transportation Enhancement Grant Program award “Bringing the Glenwood Culture to Iowans: Research, Publication, and Engagement on Archaeological Sites Excavated by The Iowa Department of Transportation.”

15. Complete the funded Statewide Transportation Alternatives Program project: “Documenting Iowa’s Pre-Settlement Roads and Trails” and extend planning for a web-based “Ancient Trails of Iowa” heritage tourism project that combines the best of Iowa statewide tourism linked to historical architecture, landscapes, and archaeological sites.

16. Submit for publication at least 10 journal articles and book chapters, including to peer-reviewed journals, and continue contributions to newsletters, online websites and wikis to improve the dissemination of information about the significance and value of Iowa’s past.

17. Offer a summer 2016 course, “Field Archaeology,” through the Iowa Lakeside Laboratory Regents Resource Center.

18. Complete OSA team obligations for the Master Planning Process associated with the Blood Run National Historic Landmark (13LO2), Lyon County, Iowa, in collaboration with Quinn Evans Associates, the Iowa Department of Natural Resources, and other tribal, state, and local partners.

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Nuts and Bolts for FY 2015

OSA Organizational Chart

GEF Support vs. External Funding

Appendices:
A Strategic Plan 2010–2016
B Public Presentations
C Papers Presented at Professional Meetings
D Publications
E Service
F Technical Reports

OSA Funding Levels 1987–2015

Gifts, Fees, and Endowment Returns

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<th>Source</th>
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<th>Funding Received</th>
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<td><strong>Total</strong></td>
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¹Includes return on the endowment fund held by The University of Iowa for the Office of the State Archaeologist.

Sponsored Research

Funding Received for Sponsored Research and Services, Fiscal Year 2015

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By the Numbers

- Newly Recorded Sites in FY 2015

UI General Education Fund 20%
Research Incentive Funds 1%
Gifts & Endowments <1%
Grants & Contracts 74%
Fees & Contributions

- 55 years the OSA has served Iowa and midwest region as a UI research center
- 593 archaeological sites have been newly recorded during the fiscal year
- 2,066,947 dollars OSA collected from sponsored grants and contracts
- 3,000+ collections were newly accessioned during the fiscal year
- 36,000+ people engaged through OSA and archaeology events
- 62 staff members worked at OSA during FY 2015
- less than 1% is how much gifts and endowments contributed to the OSA budget

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In addition to actively meeting its Iowa Code statutory responsibilities, which include tracking archaeological site location data, serving as the State Archaeological Repository, and providing ancient burials protection, the OSA vigorously supports the UI academic mission. Various OSA staff, as adjunct faculty in the UI Department of Anthropology, offer courses in anthropology and archaeology, mentor honor students and student interns, and serve on Ph.D. and M.A. degree committees. The OSA actively supports undergraduate and graduate student use of its archaeological, osteological, and comparative collections; scholarly documents; electronic databases; scientific instrumentation; and laboratory space for degree-related research. These resources contribute to the educational experience of students in diverse UI departments including Anatomy and Cell Biology, Anthropology, Dentistry, Geography, Geoscience, History, and Radiology along with the programs of American Indian and Native Studies and Museum Studies. The OSA also regularly hosts visits from UI classes, provides guest lectures in Anthropology and other departments, offers courses in its laboratory-multimedia facility, employs work-study students majoring in a wide variety of disciplines, and supports career-building volunteer research opportunities for students.

The OSA facilities, collections, and staff provided classroom enrichment and workplace experience for students. Thirty undergraduate students—from one high school student—from the UI, Cornell College, Oberlin College, Mount Mercy University, and the University of Northern Iowa were involved in various OSA archaeological and related research and repository activities over the course of the fiscal year. These included seven students employed in a work-study capacity. Many of these students used OSA resources to complete degree requirements (for-credit interns) along with assisting OSA-sponsored research as volunteers to expand their skills. A total of 108 members of the public volunteered to help with OSA projects in the field and lab including limited testing at the Meskwaki village of Wacoshashe and Poweshiek and flood recovery projects at the UI.

See a full list of volunteers and students.
Archaeological and Architectural Investigations
The OSA conducts both contract and grant-funded research undertaking archaeological and architectural history studies statewide.

Collections
The OSA continually adds archaeological materials and related documents to the State Archaeological Repository and provides materials for local, regional, and national exhibit and research purposes.

Technology
Conducting and disseminating modern high-quality archaeological research requires a major investment in research technology. The OSA's involvement in such technology covers the gamut of twenty-first century breakthroughs in archaeology.
Archaeological and Architectural Investigations

The OSA conducts both contract and grant-funded research undertaking archaeological and architectural history studies statewide. These projects, regardless of funding source or sponsor, generate important new knowledge on Midwestern prehistory and history, and they form the basis for many staff publications, professional and public presentations, and student and faculty research projects.

Hubbard Park Archaeology Site

One of the largest projects undertaken in FY 2015 was the excavation of portions of Hubbard Park. About one meter below the turf of Hubbard Park lies a remarkable archaeological site that revealed changes Iowa City underwent during its first 80 years.

School of Music Site

Another flood-recovery project on campus, the School of Music excavations occurred in 2013. However emergency excavations at Hubbard Park delayed the analysis and report of the School of Music excavations to 2015.

Infrastructure Surveys

The OSA helped the creation and development of infrastructure throughout Iowa by completing 145 investigations and evaluations during FY 2015. OSA staff surveyed proposed roads, highways, sewer lines, urban development areas, cell towers, dams, parks, wastewater plants, and quarries.

Large-Scale Archaeological Contexts

The OSA partnered with other agencies in Iowa to produce several large-scale archaeological contexts for significant historical areas.

- Blood Run National Historic Landmark
- Fort Madison
- Effigy Mounds National Monument
- Des Moines River Water Trails
- Historic dams in the Wapsipinicon River watershed

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Hubbard Park Site

One of the largest projects undertaken in FY 2015 was the excavation of portions of Hubbard Park. About one meter below the turf of Hubbard Park lies a remarkable archaeological site that revealed changes Iowa City underwent during its first 80 years. Excavations in 2014 by the OSA exposed 39 archaeological features ranging in age from the 1840s until the 1920s, and about 25,000 artifacts, ranging in age from the prehistoric Archaic to the late twentieth century.

The purpose of the investigation was to mitigate the adverse impacts to the site stemming from flood recovery-related improvements. Lower to middle income tenants and owner-occupants lived here from about 1840 until 1926 leaving behind artifacts that were partially sealed by fill and flood deposits.

In the political and social sphere of nineteenth-century Iowa, Hubbard Park residents were considered unimportant, so relatively little historical information about them was ever recorded. Partial compensation for this lack of information was achieved through intensive historical research and archaeological investigation. Thorough archival research identified many more Block 98 residents than were previously known, and helped to develop a more complete picture of the historic occupancy of the block.

The Hubbard Park project demonstrated that Iowa City’s earliest working class residents can be found, at least partially. We still do not know the names of most tenant-occupants, but intensive archival research has greatly filled this gap and provided details about their occupations and occasionally other aspects of their lives. Archaeology revealed which features were preserved from different time periods, but it was generally impossible to link specific features to named individuals. The southern block’s assemblage may represent an amalgamation of debris collected from a wide area, some including downtown Iowa City, although only further excavations can fully address this mystery. Archaeology revealed general block-wide trends, demonstrated how the more affluent residents of the north half compared to the relatively poorer southern lot residents, and suggested how the block changed over time.

View some blog entries about Hubbard Park Site

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School of Music Site

Another flood-recovery project on campus, the School of Music excavations, occurred in 2013. However emergency excavations at Hubbard Park delayed the analysis and report of the School of Music excavations to 2015.

The School of Music project revealed three significant historic archaeological features spanning the nineteenth century: a limestone well, a small foundation, and two privies (outhouses). These features help to illuminate a poorly understood areas of Iowa City history.

Although analysis is underway, early results are intriguing. The well contained everyday debris from the early-twentieth century households, their dishes, toiletries, cooking wear, and toys. The foundation contained a surprise tucked in its stones—a collection of Indian trade beads suggesting it was one of the first structures built in Iowa City. One privy may have been associated with the demolition or renovation of a nearby church, as it contained dozens of oil lamp glass chimney fragments.

View some blogs about School of Music site

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Infrastructure Surveys

Iowa Department of Transportation

FY 2015 marks 45 years of contracted services with the Iowa DOT for archaeological investigations and 26 years of historic architectural evaluations.

Cultural resource investigations conducted during the fiscal year for Iowa DOT projects totaled 83. Seventeen of those were Phase II archaeological excavations. Historic architectural surveys of a farmstead containing a National Register–listed round barn, and an Interstate highway sinkhole investigation were also conducted.

The procedures developed over the years and used by the Iowa DOT and OSA for cultural resource assessments are in compliance with state and federal regulations and guidelines for fieldwork, reporting, and curation of materials. Our goals are to continue to provide the Iowa DOT with comprehensive archaeological and historic architectural coverage on transportation projects and authoritative cultural resource evaluations for transportation planners and engineers, and to use this information to expand the knowledge of Iowa’s rich cultural heritage.

Beer Cave Sinkhole

An archaeological and historic architectural survey was conducted at the former Magnus Brewery (site 13LN1124) in Cedar Rapids, Iowa. The underground beer cave cellar was hidden until a ground surface sinkhole developed underneath a local highway ramp. The investigation of the cellar included ground-penetrating radar, soil boring, historic architecture evaluation, and archival research. The Magnus Brewery was built in 1857 and run by immigrant brewers from France and Germany. It continued in operation until a disastrous fire in 1873, after which the brewery building was rebuilt and expanded. It closed in 1917 due to prohibition. The beer caverns were originally built in 1859 and likely were undamaged by the fire and untouched by modern development. The beer caves or cellars were constructed underground to maintain the cool temperatures and humidity levels appropriate for beer storage and aging.

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Large-Scale Archaeological Contexts

Blood Run NHL
The Blood Run National Historic Landmark (NHL) in northwest Iowa is centered on an Oneota tradition archaeological site and landscape that are of great significance to present-day tribes that trace their heritage to Iowa. Partnered with the Iowa Department of Natural Resources (DNR) and Quinn Evans Architects, the goal of this on-going planning process is to create a set of guidelines and best practices for protecting the cultural and natural resources of the NHL, while also raising public awareness of the site’s significance through education and interpretation opportunities. These guidelines are being developed in close consultation with local landowners, stakeholders, and Native American groups that are affiliated with the Oneota tradition.

Fort Madison
The OSA helped develop a preservation plan for historic Fort Madison, scene of the first U.S. military fort in the upper Midwest, and the western-most battle of the War of 1812. OSA’s efforts helped negotiate and raise funds for the preservation of the battlefield.

Effigy Mounds National Monument
Working with the National Park Service, OSA helped develop a Cultural Landscape Report and Environmental Assessment for Effigy Mounds National Monument, an astonishing assemblage of about 200 prehistoric Indian mounds. This document will guide future management and preservation of this invaluable region of Iowa.

Des Moines River Water Trails
As part of a statewide effort to establish recreational water trails, the OSA worked with the DNR to evaluate the archaeological and historical contexts of access points and improvements to the Des Moines River from Fort Dodge through Des Moines. The public-oriented booklet entitled A River of Unrivaled Advantages highlights archaeological and historical resources along this route.

Historic Dams in the Wapsipinicon River Watershed
The Littleton Dam project on the Wapsipinicon River in Buchanan County was one of many New Deal projects which provided essential jobs and helped build Iowa’s infrastructure during the Great Depression. The Building Jobs in Iowa booklet explores the history of the New Deal work relief projects in Iowa and their archaeological legacy, which continues into the twenty-first century.

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Research Collections

The OSA continually adds archaeological materials and related documents to the State Archaeological Repository and provides materials for local, regional, and national exhibit and research purposes. The OSA pursues grants in support of efforts to insure the long-term care for the collections and in FY 2015 received a State Historical Society (SHSI) Historic Resource Development (HRDP) grant to preserve the documents pertaining to Iowa’s ancient human remains through digitization and microfilm production.

Loan to Washington State History Research Center

The Washington State History Research Center in Tacoma, Washington requested a loan for one of the Clovis points (see image to the left) from the Rummels-Maske site (13CD15), Cedar County, Iowa. The Washington Great Hall exhibit entitled Who were the Clovis People? will run for ten years. Examples of Clovis points were sought from sources across the country.

Collaboration with Illinois State Archaeological Survey

Illinois State Archaeological Survey at the Prairie Research Institute at the University of Illinois at Urbana-Champaign requested a loan for their study to establish the local strontium isotope range for regions considered likely places of origin for human immigrants to the Mississippian center of Cahokia. This loan consisted of teeth from small non-migratory terrestrial and semi-aquatic mammals from late prehistoric Mill Creek culture sites in northwest Iowa. These samples are a part of their larger study that includes fauna from a broad region of sites in the midcontinent.

296 newly accessioned collections
27 collection loans of 15 separate site collections
8 on-site collection examinations by three OSA staff and two student researchers
242,870 document records, 90 percent available digitally
$10,182 awarded by the SHSI HRDP grant to preserve the documents pertaining to Iowa’s ancient human remains

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Research Technology

OSA’s commitment to conducting and disseminating modern high-quality archaeological research requires a major investment in research technology. From maintaining complex databases, to deploying a suite of scientific instruments and equipment, to supporting an array of Internet and other social media, the OSA’s involvement in research technology covers the gamut of twenty-first century breakthroughs in archaeology. In FY 2015, the OSA employed some form of research technology on all of its 85 sponsored projects.

Fiscal Year 2015 Numbers

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<th>Number</th>
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<td>214</td>
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<td>$75,606</td>
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</table>

Iowa Site File

Most archaeological sites are recorded in the Iowa Site File as a result of cultural resource surveys conducted by professional archaeologists. Some, however, are reported by landowners, avocational archaeologists, and other non-professionals.

Field and Laboratory Technology

Many of OSA’s research endeavors require the use of highly specialized scientific technology in both the field and laboratory setting.

Website and App Development

During FY 2015, the OSA developed web portals for Blood Run National Historic Landmark and the Plains Anthropological Conference, developed a mobile application for the Midwest Archaeological Conference annual meeting, and made significant advances in developing I-SitesGov including full mobile functionality.
Iowa Site File

Most archaeological sites are recorded in the Iowa Site File (ISF) as a result of cultural resource surveys conducted by professional archaeologists. Some, however, are reported by landowners, avocational archaeologists, and other non-professionals. Each archaeological site recorded in the ISF contains information in a relational database and their locations are stored in a geographic information system database. Revenue generated from site searches and I-SitesPro (see below) license fees help to offset program costs to maintain the system.

I-SitesPublic Access

Information from the ISF is also provided on the World Wide Web. The I-SitesPublic Internet map server (archaeology.uiowa.edu/i-sites) provides users with access to maps of all 99 Iowa counties showing the locations of Public Land Survey System square-mile sections where archaeological sites have been recorded.

I-SitesGov

I-SitesGov, intended for use by non-archaeologists, is a low-cost fee-based website with mobile applicability that provides quarter-section location of archaeological sites to aid in government, state, and local planning. To learn more about I-SitesGov and how to obtain a license, contact the Site Records Manager (319-384-0735).

I-SitesPro

This password-protected website (www.iowaisites.com) provides qualified professional archaeologists and their staff with access to more detailed data on archaeological sites and related information from OSA’s archives. This level of access includes recorded archaeological site locations and previously archaeologically surveyed areas.
Field and Laboratory Technology

Many of OSA's research endeavors require the use of highly specialized scientific technology in both the field and lab. The following are examples of devices exploited in FY 2015 to assist a wide range of research activities.

Global Positioning System (GPS)
The OSA uses a variety of GPS units including the Trimble Juno SB with a locational accuracy of ±1.5 meters and the recently acquired Spectra Precision Mobile Mapper 120 with an accuracy of ±0.5 m. The Mobile Mapper 120 unit’s data can be post-processed for an improved ±10–20 cm accuracy. The photo above shows the Mobile Mappers being used at a Woodland era site (13DK96) within the Kettleson-Hogsback Wildlife Management Area adjacent to Spirit Lake in Dickinson County, Iowa.

Total Station Theodolite
In 2000 the OSA obtained a Topcon GDS-211D total station—a precision electronic theodolite (transit) integrated with an electronic distance meter. Survey accuracies are on the order of ±1 cm. Shown above is the total station being used to map individual artifacts during the OSA’s excavations at the Hubbard Park site on the UI campus.

High-powered Microscope
In 2008 the OSA purchased an Olympus BX51 optical microscope with a UI incentive grant. The BX51 is a top-notch materials research microscope well-suited to image archaeological specimens. The scope is equipped with an Olympus DP71 digital camera, a Prior Scientific Optiscan II motorized microscope stage, and Olympus Stream Motion 1.9 data acquisition software. The lower left photo below shows the polished smooth surfaces of a hide-scraping tool from later prehistoric American Indian site in southwestern Iowa.

3D Scanning
OSA’s NextEngine 3D Laser Scanner (shown above), uses multi-laser scanning technology to create a 3D surface and photos to create realistic texture for models. The Scan Studio HD Pro software combines the scans and photos into a textured 3D model. The scanner was used to create 3D renderings of a number of artifacts from the Blood Run site in northwest Iowa such as the large knife (see below) made out of Bijou Hills quartzite, a material obtained from central South Dakota.

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In FY 2015, to more clearly communicate the OSA’s responsibility to protect all ancient human remains in Iowa, we initiated an emphasis on bioarchaeology.

Lara Noldner started her appointment as the Bioarchaeology Director on October 6, 2014 following the retirement of Shirley Schermer.

Through its bioarchaeology initiative, the OSA continues to work closely with Native American tribes that trace their heritage to Iowa, with landowners who serve as site stewards, and with local, state, and federal agencies to see to the protection of ancient burial sites and human remains throughout the state. In addition to upholding Iowa’s burial protection laws, the OSA is also responsible for upholding the Native American Graves Protection and Repatriation Act (NAGPRA). In accordance with NAGPRA, OSA’s efforts include submitting the required documentation, consulting with the appropriate tribes, and facilitating the repatriation and reburial of human remains and funerary objects.

As part of its bioarchaeology activities, the OSA keeps records of all instances of: inadvertently discovered human remains; human remains transferred to the OSA from individuals, other agencies, or museums; burial sites disturbed or threatened by erosion; reports of newly discovered burial sites or cemeteries; and construction projects that have potential impacts on documented burial sites. In FY 2015, in addition to continuing work on projects from previous fiscal years, 103 new projects from 39 counties were recorded and nine field investigations were conducted. Field investigations mainly involved monitoring known burial sites, but also documentation of three new burial sites. Two meetings were held with the OSA’s Indian Advisory Council to keep members up to date on all human remains-related investigations and records; one meeting was held November 18, 2014 and the other on April 22, 2015. Both were held at the Meskwaki Settlement near Tama, Iowa.

Bioarchaeology activities resulted in the employment of one post-graduate and one work-study student, and provided experience-building volunteer work for two individuals. These assistants helped complete needed skeletal descriptions and formal project reports.

To promote stewardship of cemeteries and known burial sites and to promote awareness of state and federal legislation protecting ancient human remains, OSA’s bioarchaeology activities also engaged in public education and outreach events. Bioarchaeology staff gave three guest lectures and tours of the bioarchaeology lab and UI–Stanford Collection to UI students. They also gave two guest lectures on NAGPRA and the Iowa burial laws to UI students and a guest lecture on the Iowa burial laws and guidelines for protecting historic cemeteries to the State Association for the Preservation of Iowa Cemeteries.

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The OSA provides resources and opportunities that encourage the understanding, appreciation, and stewardship of Iowa's archaeological past. Events took place in 42 Iowa counties reaching over **36,000 people**.

**Exploring Iowa Archaeology in the K–12 Classroom**

The OSA develops and presents a variety of activities for K–12 audiences that are interdisciplinary, inquiry-based, hands-on, and based on current classroom content and teacher needs. OSA's success keeps it busy collaborating with archaeology education leaders across the nation.

**Bringing Archaeology to Iowa Communities**

Iowa Archaeology on the Road, International Archaeology Day, and the Meskwaki Powwow are just a few of the events and programs that engaged thousands of Iowans this past year.

**UI Mobile Museum**

The OSA is part of a collaborative team with the Office of the Vice President for Research and Economic Development and the Pentacrest Museums for the development and administration of the UI Mobile Museum, its exhibits, and resources for educators.

**Iowa Archaeology on Social Media**

In addition to the OSA webpage, Iowa Archaeology social media accounts bring the archaeology of our community to tens of thousands of people across the world.
Exploring Iowa Archaeology in the K–12 Classroom

A total of 2,440 K–12 students in 10 Iowa counties participated in archaeology presentations, activities, tours, and field trips with OSA staff. Many of these presentations involved, Exploring Iowa Archaeology in the K–12 Classroom activities. This program was awarded one of Governor Branstad’s five inaugural STEM (Science, Technology, Engineering and Mathematics) Advisory Council Seal of Approval designations at the 2015 Iowa STEM Summit in March.

The U.S. Bureau of Land Management’s Project Archaeology, a national archaeological and heritage education program active in 42 states and the District of Columbia, continues to be an integral part of OSA’s education and outreach activities. The OSA staff delivered preservice teacher workshops at the UI and University of Minnesota Duluth, training 47 future classroom teachers and informal educators how to use Project Archaeology curricula.

Beyond the classroom, the OSA has been promoting Iowa’s education program successes and contributing to the field of archaeology education on a national level. In October, OSA education and outreach staff participated in the first National Archaeology Education Conference at Crow Canyon Archaeological Center in Colorado to collaborate on developing a vision for the next 25 years of the field. The Education and Outreach Director presented on archaeology education at both the Archaeological Institute for America and Society for American Archaeology (SAA) annual meetings, and was elected to the SAA’s Public Education Committee.

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Bringing Archaeology to Iowa Communities

OSA staff reached nearly 6,200 people in 36 Iowa counties this past fiscal year to give public community presentations and private lectures or staff an exhibit table or outreach tent. An additional six counties were reached through archaeology outreach via the UI Mobile Museum. The OSA provided programming and assistance to educational, historical, cultural, environmental, community, and tribal organizations statewide, including but not limited to: the UI, State Historical Society of Iowa, Iowa Archeological Society, Iowa’s Resource Conservation & Development Councils, Iowa Department of Natural Resources (IDNR), Sac and Fox Tribe of the Mississippi in Iowa, Wickiup Hill Outdoor Learning Center, and Coe College.

Iowa Archaeology on the Road

Participation in the Des Moines Register’s Annual Great Bike Ride across Iowa (RAGBRAI) remains the OSA’s singular, over-arching annual outreach endeavor. For a seventh year, between July 19 and July 26, 2014, the RAGBRAI event took word of Iowa’s archaeological heritage and Team Archaeology riders throughout the state along the RAGBRAI route. A web site, social media promotion, and 1,000 copies of a special booklet, Iowa Archaeology on the Road were key features of the project. Team Archaeology partnered with the UI Mobile Museum at each overnight stop along the route, where 12,614 visitors saw the OSA’s exhibit on the Glenwood culture of western Iowa.

International Archaeology Day

For the fourth year, a partnership among the OSA, Iowa Archeological Society, UI Museum of Natural History, and UI Department of Anthropology created events across Iowa to celebrate International Archaeology Day, an annual event established by the Archaeological Institute of America. Events hosted by the OSA and its campus partners included lab open houses and collections’ tours, special exhibits, and activities for campus and community audiences. The OSA and UI Mobile Museum partnered with the Western Historic Trails Center in Council Bluffs and John Whittaker of Grinnell College to celebrate International Archaeology Day in western Iowa. Events offered in Council Bluffs included a lecture, flint knapping, atlatl throwing, traditional toys and games, and tours of the Glenwood culture archaeology exhibit in the UI Mobile Museum.

Paddle Trips

Also in FY 2015, the OSA collaborated with the IDNR to guide paddle trips and give presentations on the archaeology and cultural history of Iowa’s water trails. OSA archaeologists connected Iowa communities with the archaeological past of nine different waterways across the state.
UI Mobile Museum

The OSA is part of a collaborative team with the UI’s Office of the Vice President for Research and Economic Development and the Pentacrest Museums for the development and administration of the Mobile Museum. The UI Mobile Museum has new exhibits each calendar year, which are open to the public from April 1 through October 31. OSA contributions to the Mobile Museum included an exhibit on the Glenwood culture of western Iowa and archaeology content on a digital touch-screen, which traveled until November 2014. This exhibit was viewed by 33,433 visitors across Iowa. The OSA worked with a committee to develop the 2015 calendar year exhibit, Water Underground: The Science of Iowa’s Most Essential Resource, in collaboration with the UI Department of Chemistry/Water Sustainability Initiative, Iowa Geological Survey, and the Center for Health Effects of Environmental Contaminants. The OSA initiated a partnership with the College of Education, where Leslie Flynn directed her science education students to create an exhibit-based curricula for teachers across Iowa to further engage their students before, during, and after Mobile Museum visits. By assisting as Mobile Museum educators in FY 2015, OSA staff reached an additional 27,055 people across Iowa, bringing the total OSA face-to-face interactions with a public audience to 36,727 people.
Iowa Archaeology on Social Media

The education and outreach content on the OSA website remained a vigorous, interactive conduit between the public and the OSA.

The OSA’s social media pages were an important venue for disseminating news and program information in FY 2015. Active social media platforms administered by the OSA include Facebook, Twitter, Tumblr, Instagram, and YouTube. Iowa Archaeology’s Facebook and Twitter pages both saw a sharp increase in followers and engagements after shares from celebrity Melissa Gilbert, who visited the OSA to meet staff and view historical archaeology artifacts after an interview with Iowa Public Radio. The Iowa Archaeology Facebook page began FY 2015 with 725 followers and increased to 1,266 by the end of the fiscal year. The number of unique Facebook users who actively engaged with a post through likes, comments, shares, or clicks averaged 47 per day and 272 per week. Overall, an average of 461 unique Facebook users per day and 2,373 per week viewed content from the Iowa Archaeology Facebook page. A sum of the total daily views for FY 2015 equals 168,407. The most popular Iowa Archaeology Facebook post showing Melissa Gilbert posing with an historical artifact reached 6,829 unique people in a single day and 15,302 people in that week. Factoring in multiple views or visits from each unique user, the same post made 39,009 total impressions in one week, demonstrating the platform’s powerful potential in terms of engagement and outreach.

Iowa Archaeology on Twitter began FY 2015 with 1,350 followers and ended the fiscal year with 1,740 followers. Over the course of the fiscal year, impressions (the number of times a Twitter user saw an Iowa Archaeology tweet) totaled 127,700. The number of times a Twitter user actively engaged with a tweet through clicks, shares, replies, follows, or favorites, totaled 3,305. A single tweet with Melissa Gilbert totaled 15,114 impressions and 1,171 engagements.

Tumblr and Instagram social media accounts were created in FY 2014 and within a year saw an increase of 100 percent and 300 percent in followers, respectively. Neither of these platforms have built-in analytics to track followers and engagements. The Iowa Archaeology Tumblr account had 4,800 followers at the end of FY 2014 and increased to 10,200 followers by the end of FY 2015. The Iowa Archaeologist Instagram account had 94 followers and the end of FY 2014 and increased to 398 followers by the end of FY 2015.

Twelve new videos were uploaded to the Iowa Archaeology YouTube channel in FY 2015, including nine videos from the Ancient Iowa Film Series produced by Marshall McKusick in the 1970s. The Ancient Iowa Film Series generated 3,778 views. Three additional videos documented current OSA research in clips under two-minutes in length. These videos generated 281 views.

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